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Notations :

1.Options shown in green color and with ✔ icon are correct.

2.Options shown in red color and with ✖ icon are incorrect.

Question Paper Name :	PGT MAths Male
Subject Name :	PGT-Maths (Male)
Creation Date :	2021-07-31 20:06:47
Duration :	180
Total Marks :	300
Display Marks:	Yes
Calculator :	None
Magnifying Glass Required? :	No
Ruler Required? :	No
Eraser Required? :	No
Scratch Pad Required? :	No
Rough Sketch/Notepad Required? :	No
Protractor Required? :	No
Show Watermark on Console? :	Yes
Highlighter :	No
Auto Save on Console? (SA type of questions will be always auto saved) :	No

Mental Ability

Group Number :	1
Group Id :	503890261
Group Maximum Duration :	0
Group Minimum Duration :	0

Show Attended Group? :	No
Edit Attended Group? :	No
Break time :	0
Group Marks :	20
Is this Group for Examiner? :	No

Mental Ability

Section Id :	503890397
Section Number :	1
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	20
Number of Questions to be attempted :	20
Section Marks :	20
Enable Mark as Answered Mark for Review and Clear Response :	Yes
Sub-Section Number :	1
Sub-Section Id :	503890468
Question Shuffling Allowed :	Yes

Question Number : 1 Question Id : 50389010143 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

From the given responses, find the missing term in the series.

A2P, D3Q, H5R, M7S, S11T, Z13U, ?

Options :

1. ✖ G15V
2. ✔ H17V
3. ✖ E15V
4. ✖ H17S

Question Number : 1 Question Id : 50389010143 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option

Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

दिए गए विकल्पों में से, श्रेणी में लुप्त पद को ज्ञात करें।

A2P, D3Q, H5R, M7S, S11T, Z13U, ?

Options :

1. ✖ G15V
2. ✔ H17V
3. ✖ E15V
4. ✖ H17S

Question Number : 2 Question Id : 50389010144 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

From the given responses, find the missing letter in the series.

X, V, T, R, P, ?

Options :

1. ✔ N
2. ✖ S
3. ✖ Q
4. ✖ O

Question Number : 2 Question Id : 50389010144 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

दिए गए विकल्पों में से, श्रेणी में लुप्त अक्षर को ज्ञात करें।

X, V, T, R, P, ?

Options :

1. ✔ N
2. ✖ S
3. ✖ Q

4. ✖ O

Question Number : 3 Question Id : 50389010145 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

In the following question, select the odd word from the given alternatives.

Options :

1. ✖ Volt
2. ✖ Ampere
3. ✔ Resistance
4. ✖ Faraday

Question Number : 3 Question Id : 50389010145 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

निम्नलिखित प्रश्न में, दिए गए विकल्पों में से विषम शब्द का चयन करें।

Options :

1. ✖ वोल्ट
2. ✖ एम्पीयर
3. ✔ प्रतिरोध
4. ✖ फैराडे

Question Number : 4 Question Id : 50389010146 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Select the related word from the given alternatives.

Car : Garage : : Aeroplane : ?

Options :

1. ✖ Airhostess
2. ✖ Flying
3. ✔ Hangar

4. ✖ Landing

Question Number : 4 Question Id : 50389010146 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

दिए गए विकल्प से संबंधित शब्द चुनें।

कार : गेराज : : हवाई जहाज : ?

Options :

1. ✖ एयर होस्टेस
2. ✖ उड़ान
3. ✔ हैंगर
4. ✖ लैंडिंग

Question Number : 5 Question Id : 50389010147 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Select the related letters from the given alternatives.

GOAL : 20 :: SEA : 15 :: MESSI : ?

Options :

1. ✖ 30
2. ✔ 25
3. ✖ 40
4. ✖ 15

Question Number : 5 Question Id : 50389010147 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

दिए गए विकल्पों में से संबंधित अक्षरों का चयन करें।

GOAL : 20 :: SEA : 15 :: MESSI : ?

Options :

1. ✖ 30
2. ✔ 25
3. ✖ 40
4. ✖ 15

Question Number : 6 Question Id : 50389010148 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

In a certain code language, 'TIGER' is coded as 'QDFHS'. How is 'HORSE' coded in that language?

Note: For this question, discrepancy is found in question/answer. So,this question is ignored for all candidates.

Options :

1. FRQNG
2. FRPNG
3. ETQNG
4. ERSNK

Question Number : 6 Question Id : 50389010148 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

एक निश्चित कोड भाषा में, 'TIGER' को 'QDFHS' के रूप में कोडित किया जाता है, तो 'HORSE' को उस कोड भाषा में कैसे कोडित जाता है?

Note: For this question, discrepancy is found in question/answer. So,this question is ignored for all candidates.

Options :

1. FRQNG
2. FRPNG
3. ETQNG
4. ERSNK

Question Number : 7 Question Id : 50389010149 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

In a row, Anu is the 12th person from the left end, Ali is the 18th person from the right end and Abhi is the 24th person from the left end. If Anu and Ali interchange their positions then Anu is 34th from the left end. How many persons are there between Ali and Anu at present?

Options :

1. ✖ 23
2. ✔ 21
3. ✖ 19
4. ✖ 17

Question Number : 7 Question Id : 50389010149 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

एक पंक्ति में, बाएं छोर से अनु 12वां व्यक्ति है, दाएं छोर से अली 18वां व्यक्ति है तथा अभी बाएं छोर से 24वां व्यक्ति है। अनु और अली अपनी स्थिति में बदलाव करते है तब अनु बाएं छोर से 34वें स्थान पर है। अली और अनु के बीच अब कितने व्यक्ति है?

Options :

1. ✖ 23
2. ✔ 21
3. ✖ 19
4. ✖ 17

Question Number : 8 Question Id : 50389010150 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

If 18th January 2012 was Tuesday then which day will be 23rd June 2012?

Options :

1. ✖ Wednesday
2. ✖ Thursday
3. ✔ Friday
4. ✖ Saturday

Question Number : 8 Question Id : 50389010150 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

यदि 18 जनवरी 2012 को मंगलवार था, तो 23 जून 2012 को क्या होगा?

Options :

1. ✖ बुधवार
2. ✖ गुरुवार
3. ✔ शुक्रवार
4. ✖ शनिवार

Question Number : 9 Question Id : 50389010151 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

In the question below, there are two statements followed by four conclusions given in options. You have to take the given statements to be true even if they seem to be at variance with commonly known facts and then decide which of the given conclusion logically follow(s) from the given statements.

Statements:
All metals are gold.
All gold are silver.

Options :

1. ✖ All silver are metals
2. ✖ All gold are metals
3. ✔ Some metals are silver
4. ✖ Some metal is not silver

Question Number : 9 Question Id : 50389010151 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

नीचे दिए गए प्रश्न में, दो कथन के बाद विकल्पों में चार निष्कर्ष दिए गए हैं। आपको दिए गए कथनों को सत्य मानना है, भले ही वे सर्वज्ञात तथ्यों से भिन्न प्रतीत होते हों। सभी निष्कर्षों को पढ़िए फिर तय कीजिए कि दिए गए निष्कर्षों में से कौन सा तर्कसंगत रुप से अनुसरण करता है, चाहे सर्वज्ञात तथ्य कुछ भी हों।

कथन:

सभी धातु, सोना है।
सभी सोना, चांदी हैं।

Options :

1. ✖ सभी चांदी,धातु हैं
2. ✖ सभी सोना, धातु हैं
3. ✔ कुछ धातु, चांदी हैं
4. ✖ कुछ धातु, चांदी नहीं है

Question Number : 10 Question Id : 50389010152 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

In the question below are given two statements followed by two conclusions numbered I and II. You have to take the given statements to be true even if they seem to be at variance from commonly known facts. Read both the conclusions and then decide which of the given conclusions logically follows from the given statements.

Statements:
All roses are fruits.
All fruits are trees.

Conclusions:
I. All trees are roses.
II. Some fruits are roses.

Options :

1. ✖ If only Conclusion I follows
2. ✔ If only Conclusion II follows
3. ✖ If either Conclusion I or II follows
4. ✖ If both Conclusions I and II follow

Question Number : 10 Question Id : 50389010152 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

नीचे दिये गए प्रश्न में दो कथन और उसके नीचे दो निष्कर्ष I और II दिए गए हैं। आपको दिए गए कथनों को सत्य मानना है। भले ही वे सर्वज्ञात तथ्यों से भिन्नत प्रतीत हो। दोनों निष्कर्षों को पढ़िए और फिर तय कीजिए कि कौन सा निष्कर्ष दिए गए कथनों का तर्क संगत रूप से अनुसरण करता है।

कथन:
सभी गुलाब, फल हैं।
सभी फल, पेड़ हैं।

निष्कर्ष:
I. सभी पेड़, गुलाब हैं।
II. कुछ फल, गुलाब हैं।

Options :

1. ✖ यदि केवल निष्कर्ष I अनुसरण करता है
2. ✔ यदि केवल निष्कर्ष II अनुसरण करता है
3. ✖ यदि या तो निष्कर्ष I या II अनुसरण करता है
4. ✖ यदि दोनों निष्कर्ष I और II अनुसरण करते हैं

Question Number : 11 Question Id : 50389010153 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

In the question given, relations between different elements are shown in the statements. These statements are followed by two conclusions. Find out which of the given conclusions follow(s) the given statements and select the correct alternative from the given choices.

Statements:
$J > D = W \geq K$; $D = L \geq E$

Conclusions:
I. $E < J$
II. $K \geq L$

Options :

1. ✔ Only conclusion I is true
2. ✖ Only conclusion II is true
3. ✖ Either conclusion I or II is true
4. ✖ Neither conclusion I nor II is true

Question Number : 11 Question Id : 50389010153 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

दिए गए प्रश्न में, कथन में विभिन्न अवयवों के बीच संबंध को दर्शाया गया हैं। कथन के बाद दो निष्कर्ष दिए गए हैं। दिए गए कथन के आधार पर निष्कर्षों का अध्ययन कीजिये और उचित उत्तर को चुनिए।

कथन:
$J > D = W \geq K; D = L \geq E$

निष्कर्ष:
I. $E < J$
II. $K \geq L$

Options :

1. ✔ केवल निष्कर्ष I सत्य है
2. ✖ केवल निष्कर्ष II सत्य है
3. ✖ या तो निष्कर्ष I या II सत्य है
4. ✖ न तो निष्कर्ष I और न ही II सत्य है

Question Number : 12 Question Id : 50389010154 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Select the set in which the numbers are related in the same way as are the numbers of the following set.

(5, 12, 13)

Options :

1. ✖ (13, 11, 17)
2. ✖ (9, 11, 15)
3. ✖ (11, 13, 14)
4. ✔ (7, 24, 25)

Question Number : 12 Question Id : 50389010154 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

उस समुच्चय का चयन कीजिए जिसमें संख्याएं उसी तरह आपस में संबंधित है जिस प्रकार संख्याएं नीचे दिए गए समुच्चय में आपस में संबंधित हैं।

(5, 12, 13)

Options :

1. ✖ (13, 11, 17)
2. ✖ (9, 11, 15)
3. ✖ (11, 13, 14)
4. ✔ (7, 24, 25)

Question Number : 13 Question Id : 50389010155 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Find the missing number in the series given below.

15, 23, 31, 39, ?, 54, 61

Note: For this question, discrepancy is found in question/answer. So,this question is ignored for all candidates.

Options :

1. 47
2. 46
3. 44
4. 45

Question Number : 13 Question Id : 50389010155 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

नीचे दी गयी श्रेणी में लुप्त संख्या ज्ञात करें।

15, 23, 31, 39, ?, 54, 61

Note: For this question, discrepancy is found in question/answer. So,this question is ignored for all candidates.

Options :

1. 47
2. 46
3. 44
4. 45

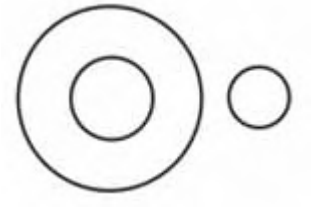
Question Number : 14 Question Id : 50389010156 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

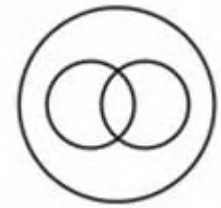
Correct Marks : 1 Wrong Marks : 0.25

If each circle represents a class of objects/ideas written below, then find out the answer figure which illustrates the best relationship among.

“Non-vertebrates, Vertebrates, Living beings"

Options :

1. ✖ 

2. ✖ 

3. ✖ 

4. 

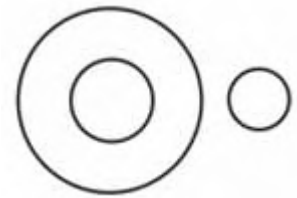
Question Number : 14 Question Id : 50389010156 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

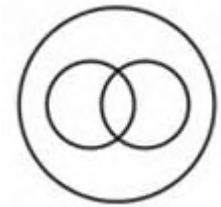
Correct Marks : 1 Wrong Marks : 0.25

यदि प्रत्येक वृत्त नीचे दिए गए वस्तुओं/विचारों को दर्शाता है, तो वह उत्तर आकृति ज्ञात करें जो निम्न में सबसे बेहतर सम्बन्ध को दर्शाए।

" गैर-कशेरुक, कशेरुक, जीवित प्राणी"

Options :

1. 

2. 

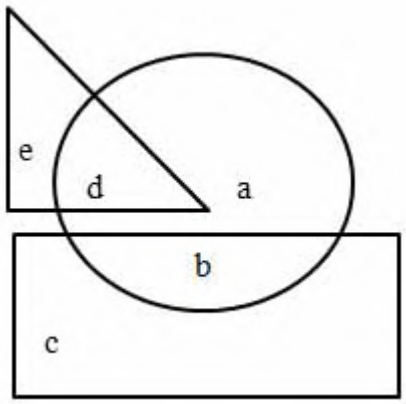
3. 

4. 

Question Number : 15 Question Id : 50389010157 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

In the following figure, Rectangle represents human, Traingle represents Man and circle represents Father. Which set of letters represents Father which are either human or Man?



Options :

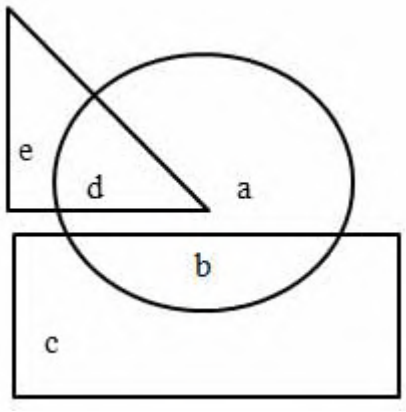
1. ✖ a, e
2. ✔ d, b
3. ✖ c, a
4. ✖ d, a, e

Question Number : 15 Question Id : 50389010157 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

निम्नलिखित आकृति में, आयत मानव को दर्शाता है, त्रिभुज आदमी को दर्शाता है और वृत्त पिता को दर्शाता है। अक्षरों का कौन सा समूह पिता को दर्शाता है जो

या तो मानव या आदमी हैं?



Options :

1. ✖ a, e
2. ✔ d, b
3. ✖ c, a
4. ✖ d, a, e

Question Number : 16 Question Id : 50389010158 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

A clock is placed in such a way that when it is 12'O clock, the hands point towards North-East direction. In which direction will the hour hand point at 6 PM?

Note: For this question, discrepancy is found in question/answer. So,this question is ignored for all candidates.

Options :

1. West
2. East
3. South
4. South-West

Question Number : 16 Question Id : 50389010158 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

एक घड़ी को इस तरह से रखा जाता है कि जब घड़ी में 12 बजते है तो घड़ी की सुई पूर्व दिशा की ओर इशारा करती हैं। शाम 6 बजे घड़ी की घंटे वाली सुई किस दिशा में होगी?

Note: For this question, discrepancy is found in question/answer. So,this question is ignored for all candidates.

Options :

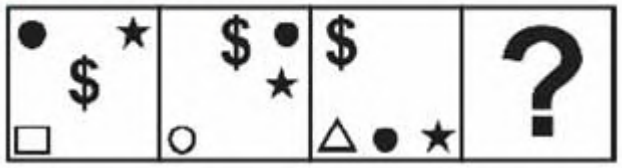
1. पश्चिम
2. पूर्व
3. दक्षिण
4. दक्षिण-पश्चिम

Question Number : 17 Question Id : 50389010159 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Select the figure that will come next in the following series.

Questions figures:



Options :

1. ✔ 

2. ✖ 

3. ✖ 

4. ✖ 

Question Number : 17 Question Id : 50389010159 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

निम्नलिखित श्रृंखला में आगे आने वाली आकृति का चयन करें।

प्रश्न आकृतियाँ:

Options :

1. ✔ 

2. ✖ 

3. ✖ 

4. ✖ 

Question Number : 18 Question Id : 50389010160 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

How many triangles are there in the given figure?

Options :

1. ✖ 16
2. ✖ 18
3. ✖ 19
4. ✔ 20

Question Number : 18 Question Id : 50389010160 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

दी गई आकृत्ति में कितने त्रिभुज हैं?

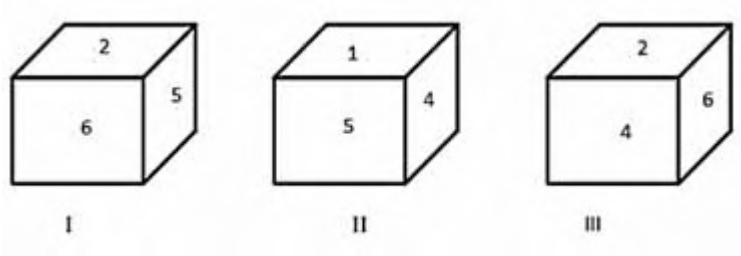
Options :

1. ✖ 16
2. ✖ 18
3. ✖ 19
4. ✔ 20

Question Number : 19 Question Id : 50389010161 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Three different positions of a dice are shown below.



Which of the following number is opposite to 1?

Note: For this question, discrepancy is found in question/answer. So,this question is ignored for all candidates.

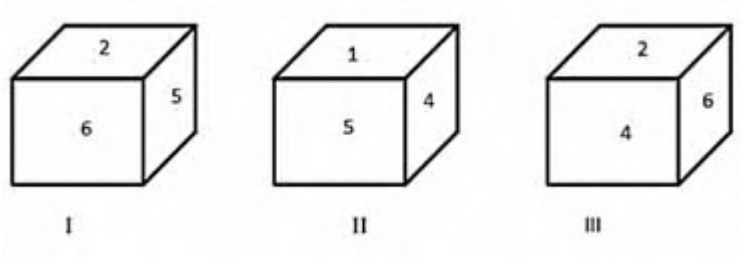
Options :

1. 2
2. 3
3. 6
4. 4

Question Number : 19 Question Id : 50389010161 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

एक पांसे की विभिन्न स्थितियां नीचे दी गई है।



निम्नलिखित में से कौन-सी संख्या 1 के विपरीत है?

Note: For this question, discrepancy is found in question/answer. So,this

question is ignored for all candidates.

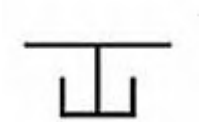
Options :

1. 2
2. 3
3. 6
4. 4

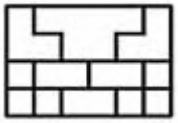
Question Number : 20 Question Id : 50389010162 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

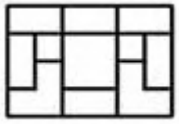
Correct Marks : 1 Wrong Marks : 0.25

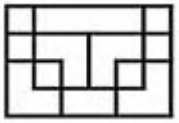
Select the figure in which the given figure is embedded (rotation not allowed).



Options :

1. ✖ 

2. ✖ 

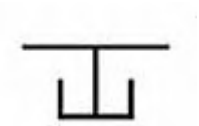
3. ✔ 

4. ✖ 

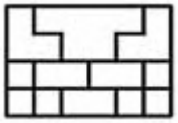
Question Number : 20 Question Id : 50389010162 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

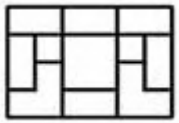
Correct Marks : 1 Wrong Marks : 0.25

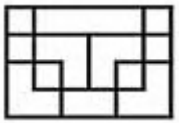
वह आकृति चुनें जिसमें दी गई आकृति सन्निहित/छिपी है (आकृति के परिक्रमण/घुमाने की अनुमति नहीं है)।



Options :

1. ✖ 

2. ✖ 

3. ✔ 

4. ✖ 

General Awareness

Group Number : 2

Group Id : 503890262

Group Maximum Duration :	0
Group Minimum Duration :	0
Show Attended Group? :	No
Edit Attended Group? :	No
Break time :	0
Group Marks :	20
Is this Group for Examiner? :	No

General Awareness

Section Id :	503890398
Section Number :	1
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	20
Number of Questions to be attempted :	20
Section Marks :	20
Enable Mark as Answered Mark for Review and Clear Response :	Yes
Sub-Section Number :	1
Sub-Section Id :	503890469
Question Shuffling Allowed :	Yes

Question Number : 21 Question Id : 50389010163 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Which of the following individuals designed the Rashtrapati Bhavan?

Options :

1. ✖ Francis Octavius Bedford
2. ✔ Edwin Landseer Lutyens
3. ✖ Ignatius Bonomi
4. ✖ Thomas Baldwin

Question Number : 21 Question Id : 50389010163 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

निम्नलिखित में से किस व्यक्ति ने राष्ट्रपति भवन का डिजाइन तैयार किया था?

Options :

1. ✖ फ्रांसिस ऑक्टेवियस बेडफोर्ड
2. ✔ एडविन लैंडसीर लुटियंस
3. ✖ इग्नाटियस बोनोमिक
4. ✖ थॉमस बाल्डविन

Question Number : 22 Question Id : 50389010164 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Guru Nanak Dev, on whose birth anniversary Gurunanak Jayanti is celebrated, was born in which year?

Options :

1. ✔ 1469
2. ✖ 1487
3. ✖ 1529
4. ✖ 1687

Question Number : 22 Question Id : 50389010164 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

गुरु नानक देव, जिनकी जयंती पर गुरुनानक जयंती मनाई जाती है, का जन्म किस वर्ष हुआ था?

Options :

1. ✔ 1469
2. ✖ 1487
3. ✖ 1529
4. ✖ 1687

Question Number : 23 Question Id : 50389010165 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Which of the following rulers built Charminar?

Options :

1. ✔ Mohammed Quli Qutab Shah
2. ✖ Nizamia Unani
3. ✖ Shah Jahan
4. ✖ Sher Shah Suri

Question Number : 23 Question Id : 50389010165 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

निम्नलिखित में से किस शासक ने चारमीनार का निर्माण करवाया था?

Options :

1. ✔ मोहम्मद कुली क़ुतुब शाह
2. ✖ निज़ामिया यूनानी
3. ✖ शाहजहाँ
4. ✖ शेर शाह सूरी

Question Number : 24 Question Id : 50389010166 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

In which year, Unorganized Workers Social Security Act was passed?

Options :

1. ✖ 2006
2. ✖ 2000
3. ✖ 2005
4. ✔ 2008

Question Number : 24 Question Id : 50389010166 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

असंगठित श्रमिक सामाजिक सुरक्षा अधिनियम किस वर्ष में पारित किया गया था?

Options :

1. ✖ 2006
2. ✖ 2000
3. ✖ 2005
4. ✔ 2008

Question Number : 25 Question Id : 50389010167 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Which among the following is not a money market instrument?

Options :

1. ✖ Cash Management Bill
2. ✖ Certificate of Deposit
3. ✖ Commercial Paper
4. ✔ Debenture

Question Number : 25 Question Id : 50389010167 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

निम्नलिखित में से कौन-सा मुद्रा बाजार का साधन नहीं है?

Options :

1. ✖ नकद प्रबंधन विधेयक
2. ✖ जमा प्रमाणपत्र
3. ✖ वाणिज्यिक पत्र
4. ✔ ऋणपत्र

Question Number : 26 Question Id : 50389010168 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

What is the pH value of a neutral solution?

Options :

1. ✖ Less than 7
2. ✖ More than 7
3. ✔ 7
4. ✖ 0

Question Number : 26 Question Id : 50389010168 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

उदासीन विलयन (Neutral Solution) का pH मान कितना होता है?

Options :

1. ✖ 7 से कम
2. ✖ 7 से अधिक
3. ✔ 7
4. ✖ 0

Question Number : 27 Question Id : 50389010169 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Which of the following elements has a valency of 2?

Options :

1. ✔ Beryllium
2. ✖ Nitrogen
3. ✖ Carbon
4. ✖ Silicon

Question Number : 27 Question Id : 50389010169 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

निम्नलिखित में से किस तत्व की संयोजकता 2 है?

Options :

1. ✔ बेरिलियम

2. ✖ नाइट्रोजन
3. ✖ कार्बन
4. ✖ सिलिकॉन

Question Number : 28 Question Id : 50389010170 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

The lower most layer of Soil is called what?

Options :

1. ✖ A-Horizon
2. ✔ Bedrock
3. ✖ B-Horizon
4. ✖ C-Horizon

Question Number : 28 Question Id : 50389010170 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

मृदा की सबसे निचली परत को क्या कहते हैं?

Options :

1. ✖ A-होरिज़न
2. ✔ बेडरॉक
3. ✖ B-होरिज़न
4. ✖ C-होरिज़न

Question Number : 29 Question Id : 50389010171 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

The Shyok and Gilgit are tributaries of which river?

Options :

1. ✖ Ganga
2. ✖ Brahmaputra

3. ✖ Godavari

4. ✔ Indus

Question Number : 29 Question Id : 50389010171 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

श्योक और गिलगित किस नदी की सहायक नदियाँ हैं?

Options :

1. ✖ गंगा

2. ✖ ब्रह्मपुत्र

3. ✖ गोदावरी

4. ✔ सिन्धु

Question Number : 30 Question Id : 50389010172 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

In what year did the Battle of Plassey took place?

Options :

1. ✖ 1857

2. ✔ 1757

3. ✖ 1747

4. ✖ 1769

Question Number : 30 Question Id : 50389010172 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

प्लासी का युद्ध किस वर्ष हुआ था?

Options :

1. ✖ 1857

2. ✔ 1757

3. ✖ 1747

4. ✖ 1769

Question Number : 31 Question Id : 50389010173 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

In which town did the Mutiny of 1857 began?

Options :

1. ✖ Delhi
2. ✖ Lucknow
3. ✖ Kolkata
4. ✔ Meerut

Question Number : 31 Question Id : 50389010173 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

1857 का विद्रोह किस शहर में शुरू हुआ था?

Options :

1. ✖ दिल्ली
2. ✖ लखनऊ
3. ✖ कोलकाता
4. ✔ मेरठ

Question Number : 32 Question Id : 50389010174 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Which of the following individuals was the Guardian of the Mughal King Akbar?

Options :

1. ✖ Khusru
2. ✖ Abdul Kalif
3. ✔ Bairam Khan
4. ✖ Adil Shah

Question Number : 32 Question Id : 50389010174 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

निम्नलिखित में से कौन-सा व्यक्ति मुगल बादशाह अकबर का संरक्षक था?

Options :

1. ✖ खुसरू
2. ✖ अब्दुल कालीफ
3. ✔ बैरम खान
4. ✖ आदिल शाह

Question Number : 33 Question Id : 50389010175 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Who is the only Chief Justice to be appointed as the Acting President of India?

Options :

1. ✔ M. Hidayatullah
2. ✖ A.K. Sarkar
3. ✖ VV Giri
4. ✖ Ramnath Kovind

Question Number : 33 Question Id : 50389010175 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

भारत के कार्यवाहक राष्ट्रपति के रूप में नियुक्त होने वाले एकमात्र मुख्य न्यायाधीश कौन हैं?

Options :

1. ✔ एम हिदायतुल्लाह
2. ✖ ए.के. सरकार
3. ✖ वी.वी. गिरि
4. ✖ रामनाथ कोविंद

Question Number : 34 Question Id : 50389010176 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Who was the first Chief Election Commissioner of India?

Options :

1. ✖ KV Sundaram
2. ✔ Sukumar Sen
3. ✖ SP Sen Verma
4. ✖ OP Rawat

Question Number : 34 Question Id : 50389010176 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

भारत के पहले मुख्य चुनाव आयुक्त कौन थे?

Options :

1. ✖ केवी सुंदरम
2. ✔ सुकुमार सेन
3. ✖ एसपी सेन वर्मा
4. ✖ ओपी रावत

Question Number : 35 Question Id : 50389010177 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Which of the following individuals is the author of the book "Chandrakanta"?

Options :

1. ✔ Devaki Nandan Khatri
2. ✖ Subhadra Kumari Chauhan
3. ✖ Jiashankar Prasad
4. ✖ Munshi Premchand

Question Number : 35 Question Id : 50389010177 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

निम्नलिखित व्यक्तियों में से कौन पुस्तक "चंद्रकांता" के लेखक हैं?

Options :

1. ✔ देवकी नंदन खत्री
2. ✖ सुभद्रा कुमारी चौहान
3. ✖ जियाशंकर प्रसाद
4. ✖ मुंशी प्रेमचंद

Question Number : 36 Question Id : 50389010178 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Who is the current Prime Minister of Japan?

Options :

1. ✖ Shinzo Abe
2. ✔ Yoshihide Suga
3. ✖ Naoto Kan
4. ✖ Yoshiro Mori

Question Number : 36 Question Id : 50389010178 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

जापान के वर्तमान प्रधान मंत्री कौन हैं?

Options :

1. ✖ शिंजो आबे
2. ✔ योशीहिदे सुगा
3. ✖ नाओतो कान
4. ✖ योशिरो मोरी

Question Number : 37 Question Id : 50389010179 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

What is the name of China's Space Agency?

Options :

1. ✔ China National Space Administration
2. ✖ China National Space Agency
3. ✖ China National Science Agency
4. ✖ Chinese Space Administration

Question Number : 37 Question Id : 50389010179 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

चीन की अंतरिक्ष एजेंसी का क्या नाम है

Options :

1. ✔ चीन राष्ट्रीय अंतरिक्ष प्रशासन
2. ✖ चीन की राष्ट्रीय अंतरिक्ष एजेंसी
3. ✖ चीन राष्ट्रीय विज्ञान एजेंसी
4. ✖ चीनी अंतरिक्ष प्रशासन

Question Number : 38 Question Id : 50389010180 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Which company has built the world’s biggest airplane ever, named Roc?

Options :

1. ✖ Boeing
2. ✖ Airbus
3. ✖ HAL
4. ✔ Stratolaunch

Question Number : 38 Question Id : 50389010180 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

किस कंपनी ने विश्व का अब तक का सबसे बड़ा हवाई जहाज बनाया है, जिसका नाम 'रॉक' (Roc) है?

Options :

1. ✖ बोइंग
2. ✖ एयरबस
3. ✖ एचएएल
4. ✔ स्ट्रैटोलांच

Question Number : 39 Question Id : 50389010181 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Who was the winner of the US Open 2020?

Options :

1. ✖ Roger Federer
2. ✖ Rafael Nadal
3. ✔ Dominic Thiem
4. ✖ Novak Djokovic

Question Number : 39 Question Id : 50389010181 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

यूएस ओपन 2020 का विजेता कौन था?

Options :

1. ✖ रोजर फ़ेडरर
2. ✖ राफेल नडाल
3. ✔ डोमिनिक थिएम
4. ✖ नोवाक जोकोविच

Question Number : 40 Question Id : 50389010182 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

What is the full-form of ATP?

Options :

1. ✖ Academy of Tennis Players

2. ✔ Association of Tennis Professionals
3. ✖ Agency for Tennis Professionals
4. ✖ Asian Tennis Professionals

Question Number : 40 Question Id : 50389010182 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

एटीपी का फुलफॉर्म क्या है?

Options :

1. ✖ एकेडमी ऑफ टेनिस प्लेयर
2. ✔ एसोसिएशन ऑफ टेनिस प्रोफेशनल्स
3. ✖ एजेंसी फॉर टेनिस प्रोफेशनल्स
4. ✖ एशियन टेनिस प्रोफेशनल्स

Arithmetic Ability

Group Number :	3
Group Id :	503890263
Group Maximum Duration :	0
Group Minimum Duration :	0
Show Attended Group? :	No
Edit Attended Group? :	No
Break time :	0
Group Marks :	20
Is this Group for Examiner? :	No

Arithmetic Ability

Section Id :	503890399
Section Number :	1
Section type :	Online

Mandatory or Optional :	Mandatory
Number of Questions :	20
Number of Questions to be attempted :	20
Section Marks :	20
Enable Mark as Answered Mark for Review and Clear Response :	Yes
Sub-Section Number :	1
Sub-Section Id :	503890470
Question Shuffling Allowed :	Yes

Question Number : 41 Question Id : 50389010183 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

What will come in the place of question mark (?) in the given expression?

$$(2.5)^2+\frac{58}{4}+\frac{9}{4}=?$$

Options :

1. ✖ 21.5
2. ✖ 22
3. ✖ 22.5
4. ✔ 23

Question Number : 41 Question Id : 50389010183 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

दिए गए व्यंजक में प्रश्न चिह्न (?) के स्थान पर क्या आएगा?

$$(2.5)^2+\frac{58}{4}+\frac{9}{4}=?$$

Options :

1. ✖ 21.5

2. ✖ 22
3. ✖ 22.5
4. ✔ 23

Question Number : 42 Question Id : 50389010184 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

What approximate value should come in place of question mark (?) in the following questions? (You are not expected to calculate the exact value.)

$$\sqrt{225} \times ? + 1700 \div 8.5 = 650$$

Options :

1. ✖ 16
2. ✔ 30
3. ✖ 18
4. ✖ 20

Question Number : 42 Question Id : 50389010184 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

निम्नलिखित प्रश्न में प्रश्नवाचक चिन्ह (?) के स्थान पर क्या अनुमानित मान आना चाहिए? (आप सटीक मान की गणना करने के अपेक्षित नहीं है)

$$\sqrt{225} \times ? + 1700 \div 8.5 = 650$$

Options :

1. ✖ 16
2. ✔ 30
3. ✖ 18
4. ✖ 20

Question Number : 43 Question Id : 50389010185 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

If $mx^3 + 4x^2 + 6x + 4$ is divisible by $x+2$, then what is the value of m?

Options :

1. ✖ 2
2. ✖ 3
3. ✔ 1
4. ✖ -1

Question Number : 43 Question Id : 50389010185 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

यदि $mx^3 + 4x^2 + 6x + 4$ को $x+2$ द्वारा विभाजित किया जाता है, तो m का मान कितना है?

Options :

1. ✖ 2
2. ✖ 3
3. ✔ 1
4. ✖ -1

Question Number : 44 Question Id : 50389010186 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Find the least square number which is divisible by 4, 8, 9, 10 and 12?

Options :

1. ✖ 1024
2. ✖ 900
3. ✔ 3600
4. ✖ 1440

Question Number : 44 Question Id : 50389010186 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

सबसे न्यूनतम वर्ग संख्या ज्ञात कीजिए जो 4, 8, 9, 10 और 12 से विभाज्य है?

Options :

1. ✖ 1024
2. ✖ 900
3. ✔ 3600
4. ✖ 1440

Question Number : 45 Question Id : 50389010187 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Find the largest fraction of the following fractions?

Options :

1. ✖ $\frac{6}{35}$
2. ✔ $\frac{19}{98}$
3. ✖ $\frac{13}{69}$
4. ✖ $\frac{21}{113}$

Question Number : 45 Question Id : 50389010187 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

निम्नलिखित भिन्नों में से सबसे बड़ी भिन्न ज्ञात कीजिए?

Options :

1. ✖ $\frac{6}{35}$

2. ✔ $\frac{19}{98}$

3. ✖ $\frac{13}{69}$

4. ✖ $\frac{21}{113}$

Question Number : 46 Question Id : 50389010188 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

The number of visitors for the Jim Corbett national park from Monday to Friday were 1029, 1340, 943, 881 and 1147 respectively. The average number of visitors for the park per day of the week was 1220. What is the average number of visitors on weekends (i.e., Saturday and Sunday)?

Options :

1. ✖ 1500

2. ✖ 1560

3. ✖ 1650

4. ✔ 1600

Question Number : 46 Question Id : 50389010188 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

सोमवार से शुक्रवार तक जिम कॉर्बेट नेशनल पार्क के लिए आगंतुकों की संख्या क्रमश: 1029, 1340, 943, 881 और 1147 थी। सप्ताह के प्रति दिन पार्क के लिए आगंतुकों की औसत संख्या 1220 थी। सप्ताहांत (यानी, शनिवार और रविवार) पर आगंतुकों की औसत संख्या क्या है?

Options :

1. ✖ 1500
2. ✖ 1560
3. ✖ 1650
4. ✔ 1600

Question Number : 47 Question Id : 50389010189 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Hari is saving some part of his monthly salary to buy a car. Then he will buy the car in 48 months. How much percent should be increase his savings to buy the car in 36 months?

Options :

1. ✖ 25 percent
2. ✔ 33.33 percent
3. ✖ 20 percent
4. ✖ 16.66 percent

Question Number : 47 Question Id : 50389010189 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

कार खरीदने के लिए हरि अपने मासिक वेतन का कुछ हिस्सा बचा रहा है। तो वह 48 महीने में कार खरीद लेगा। 36 महीने में कार खरीदने के लिए उसकी बचत में कितना प्रतिशत वृद्धि होनी चाहिए?

Options :

1. ✖ 25 प्रतिशत
2. ✔ 33.33 प्रतिशत
3. ✖ 20 प्रतिशत
4. ✖ 16.66 प्रतिशत

Question Number : 48 Question Id : 50389010190 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

In a town, 40 percent of male population and 30 percent of female population are married. Assuring that one man marries one woman and vice-versa, find the percentage of total population who are married?

Options :

1. ✖ 30 percent
2. ✔ 34.28 percent
3. ✖ 31.42 percent
4. ✖ 32.14 percent

Question Number : 48 Question Id : 50389010190 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

एक शहर में, 40 प्रतिशत पुरुष आबादी और 30 प्रतिशत महिला आबादी शादीशुदा है। यह मानते हुए कि एक पुरुष एक महिला से शादी करता है और इसके विपरीत, कुल आबादी का प्रतिशत ज्ञात कीजिए जो विवाहित है?

Options :

1. ✖ 30 प्रतिशत
2. ✔ 34.28 प्रतिशत
3. ✖ 31.42 प्रतिशत
4. ✖ 32.14 प्रतिशत

Question Number : 49 Question Id : 50389010191 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

The profit earned on selling a bike for Rs.66750 is the same as the loss incurred on selling the bike for Rs.43250. find the cost price of the bike.

Options :

1. ✔ Rs.55000
2. ✖ Rs.57500
3. ✖ Rs.50000
4. ✖ Rs.52500

Question Number : 49 Question Id : 50389010191 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

एक बाइक को 66750 रुपये में बेच कर अर्जित किया गया लाभ बाइक को 43250 रुपये में बेच कर अर्जित किए गए हानि के समान है। बाइक का क्रय मूल्य ज्ञात करें।

Options :

1. ✔ 55000 रुपये
2. ✖ 57500 रुपये
3. ✖ 50000 रुपये
4. ✖ 52500 रुपये

Question Number : 50 Question Id : 50389010192 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

A and B started a business together with initial investment of Rs. 3200 and Rs. 4800, respectively. After 3 months, C joined them with an investment of Rs. 4000. If after a year, they received a total profit of Rs. 4950, then find the profit share of B.?

Options :

1. ✖ Rs. 2240
2. ✖ Rs. 1860
3. ✖ Rs. 1920
4. ✔ Rs. 2160

Question Number : 50 Question Id : 50389010192 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

A और B ने क्रमशः 3200 रुपये और 4800 रुपये के आरंभिक निवेश के साथ कारोबार शुरू किया। तीन महीने बाद, C, 4000 रुपये के साथ कारोबार से जुड़ा। यदि एक वर्ष बाद, उन्होंने कुल लाभ 4950 रुपये अर्जित किया तो B के लाभ का हिस्सा ज्ञात करें?

Options :

1. ✖ 2240 रुपये
2. ✖ 1860 रुपये
3. ✖ 1920 रुपये
4. ✔ 2160 रुपये

Question Number : 51 Question Id : 50389010193 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Sum of age of Abhi before 9 years and age of Anjali after 6 years is 41 years. Ages of Abhi and Anjali after 8 years will be in the ratio 7 : 8

respectively. What is the difference between their present ages?

Options :

1. ✔ 4 years
2. ✖ 8 years
3. ✖ 6 years
4. ✖ 2 years

Question Number : 51 Question Id : 50389010193 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

9 वर्ष से पहले अभि की आयु और 6 वर्ष के बाद अंजलि की आयु का योग 41 वर्ष है। 8 वर्षों बाद अभि और अंजलि की आयु क्रमशः 7 : 8 के अनुपात में होगी। उनकी वर्तमान आयु के बीच का अंतर क्या है?

Options :

1. ✔ 4 वर्ष
2. ✖ 8 वर्ष
3. ✖ 6 वर्ष
4. ✖ 2 वर्ष

Question Number : 52 Question Id : 50389010194 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

At what percent per annum will Rs.3000 amounts to Rs.3993 in 3 years ,if the interest is compounded annually?

Options :

1. ✖ 9 percent
2. ✔ 10 percent
3. ✖ 11 percent
4. ✖ 13 percent

Question Number : 52 Question Id : 50389010194 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

किस वार्षिक ब्याज की दर से 3000 रूपये, 3 वर्ष में 3993 रूपयें हो जाएगी, यदि चक्रवृद्धि ब्याज वार्षिक देय हो?

Options :

1. ✖ 9 प्रतिशत
2. ✔ 10 प्रतिशत
3. ✖ 11 प्रतिशत
4. ✖ 13 प्रतिशत

Question Number : 53 Question Id : 50389010195 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

A man walks at 6 m/sec and reaches his destination in 80 minutes. A woman covers the same distance in 1.2 hr. What is the speed of the woman (in km/hr)?

Options :

1. ✖ 21.6
2. ✔ 24
3. ✖ 20
4. ✖ 28.8

Question Number : 53 Question Id : 50389010195 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

एक व्यक्ति 6 मीटर/सेकंड चलता है और अपने गंतव्य पर 80 मिनट में पहुँच जाता है। एक महिला समान दूरी को 1.2 घंटे में तय करती है। महिला की गति कितनी है? (कि.मी/घंटा में)

Options :

1. ✖ 21.6
2. ✔ 24
3. ✖ 20
4. ✖ 28.8

Question Number : 54 Question Id : 50389010196 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

A 275 metre long train crosses a platform of equal length in 33 seconds. What is the speed of the train in kmph?

Options :

1. ✖ 66
2. ✔ 60
3. ✖ 64
4. ✖ 72

Question Number : 54 Question Id : 50389010196 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

275 मीटर लम्बी एक ट्रेन अपने समान लम्बाई के प्लेटफार्म को 33 सेकण्ड में पार करता है, तो ट्रेन की गति ज्ञात करें (किमी/घण्टा में)

Options :

1. ✖ 66
2. ✔ 60
3. ✖ 64
4. ✖ 72

Question Number : 55 Question Id : 50389010197 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

A alone can do a piece work 18days.A began the work but leaves after 4 days.B completed the remaining work in 21 days. In how mant days B alone could do the work?

Options :

1. ✔ 27 days
2. ✖ 28 days
3. ✖ 26 days
4. ✖ 36 days

Question Number : 55 Question Id : 50389010197 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

A अकेला 18 दिनों में एक काम कर सकता है। A ने काम शुरू किया लेकिन 4 दिन बाद काम छोड़ दिया और शेष कार्य B ने 21 दिनों में पूरा कर लिया। B अकेले काम कितने दिनों में कर सकता है?

Options :

1. ✔ 27 दिन
2. ✖ 28 दिन
3. ✖ 26 दिन
4. ✖ 36 दिन

Question Number : 56 Question Id : 50389010198 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

A square and an equilateral triangle have equal perimeter. If the diagonal of the square is $12\sqrt{2}$ cm, then find thearea of the triangle?

Options :

1. ✖ $24\sqrt{2}\ cm^2$
2. ✖ $24\sqrt{3}\ cm^2$
3. ✖ $64\sqrt{2}\ cm^2$
4. ✔ $64\sqrt{3}\ cm^2$

Question Number : 56 Question Id : 50389010198 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

एक वर्ग और एक समबाहु त्रिभुज का परिमाप बराबर है। यदि वर्ग का विकर्ण $12\sqrt{2}$ सेंमी हो, तो त्रिभुज का क्षेत्रफल ज्ञात करें

Options :

1. ✖ $24\sqrt{2}$ सेंमी^{2}

2. ✖ $24\sqrt{3}$ सेंमी^{2}

3. ✖ $64\sqrt{2}$ सेंमी^{2}

4. ✔ $64\sqrt{3}$ सेंमी^{2}

Question Number : 57 Question Id : 50389010199 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

The curved surface area of a cylinder is 352 cm2. If the total surface of the cylinder is 429 cm2, then what is the radius of the cylinder (given π = 22/7)?

Options :

1. ✖ 7 cm
2. ✖ 4.9 cm
3. ✖ 3 cm
4. ✔ 3.5 cm

Question Number : 57 Question Id : 50389010199 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

एक बेलन का वक्र पृष्ठीय क्षेत्रफल 352 सेमी2 है। यदि बेलन का कुल पृष्ठीय क्षेत्रफल 429 सेमी2 है तो बेलन की त्रिज्या कितनी है (π = 22/7 दिया गया है)?

Options :

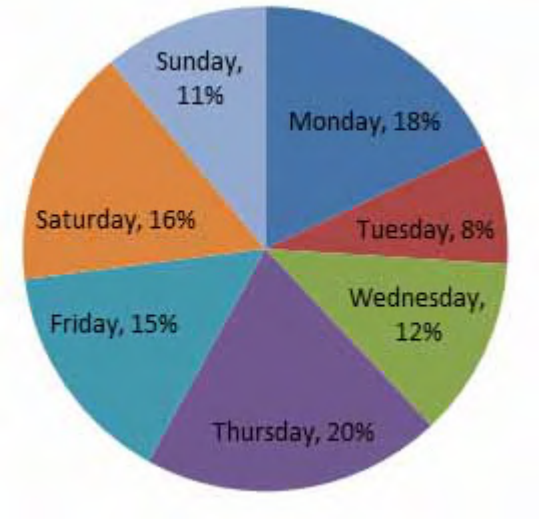
1. ✖ 7 सेमी
2. ✖ 4.9 सेमी
3. ✖ 3 सेमी
4. ✔ 3.5 सेमी

Question Number : 58 Question Id : 50389010200 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

The pie-chart given below represents the percentage distribution of the number of eggs sold by a shopkeeper on different days of a week.

Percentage distribution of the number of eggs sold by a shopkeeper



If total number of eggs sold in the whole week is 1600, then find the number of eggs sold on Monday.

Options :

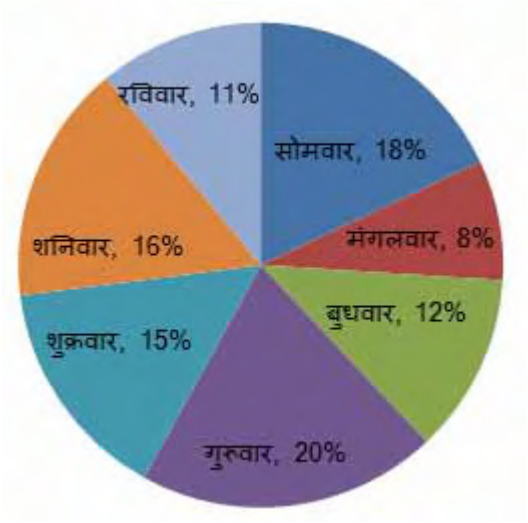
1. ✖ 204
2. ✔ 288
3. ✖ 312
4. ✖ 180

Question Number : 58 Question Id : 50389010200 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

नीचे दिया गया पाई-चार्ट एक सप्ताह के विभिन्न दिनों में एक दुकानदार द्वारा बेचे गए अण्डों की संख्या के प्रतिशत वितरण का प्रतिनिधित्व करता है।

एक दुकानदार द्वारा बेचे गए अंडों की संख्या का प्रतिशत वितरण



यदि पूरे सप्ताह में बेचे गये कुल अण्डों की संख्या 1600 है तो सोमवार को बेचे गये कुल अण्डों की संख्या कितनी होगी?

Options :

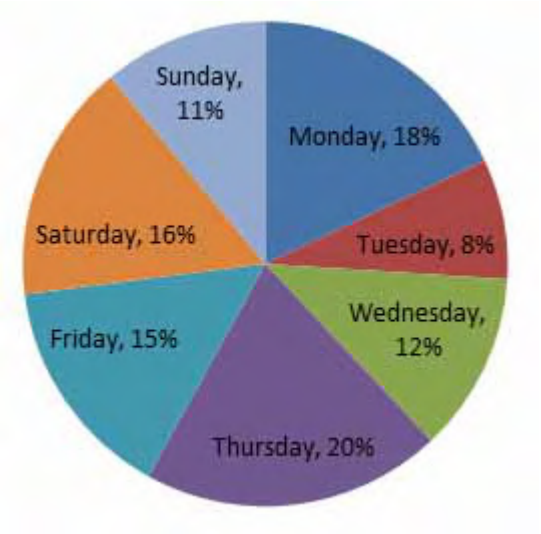
1. ✖ 204
2. ✔ 288
3. ✖ 312
4. ✖ 180

Question Number : 59 Question Id : 50389010201 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

The pie-chart given below represents the percentage distribution of the number of eggs sold by a shopkeeper on different days of a week.

Percentage distribution of the number of eggs sold by a shopkeeper



If total number of eggs sold in the whole week is 1300, then find the difference between the number of eggs sold on Friday and the number of eggs sold on Sunday.

Options :

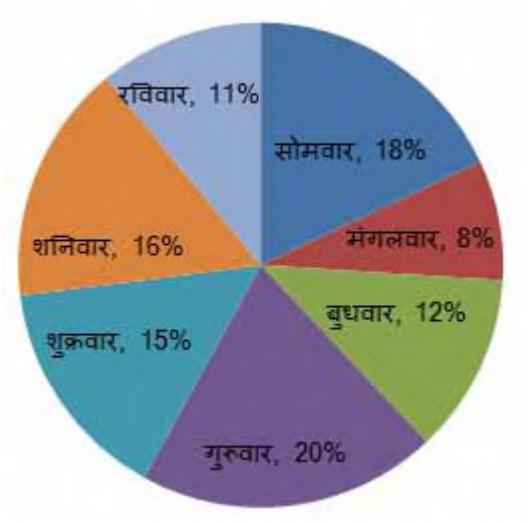
1. ✔ 52
2. ✖ 65
3. ✖ 39
4. ✖ 78

Question Number : 59 Question Id : 50389010201 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

नीचे दिया गया पाई-चार्ट एक सप्ताह के विभिन्न दिनों में एक दुकानदार द्वारा बेचे गए अण्डों की संख्या के प्रतिशत वितरण का प्रतिनिधित्व करता है।

एक दुकानदार द्वारा बेचे गए अंडों की संख्या का प्रतिशत वितरण



यदि पूरे सप्ताह में बेचे गयी कुल अण्डों की संख्या 1300 है, तो शुक्रवार को बेचे गये अण्डों की संख्या और रविवार को बेचे गये अण्डों की संख्या के बीच का अंतर ज्ञात करें?

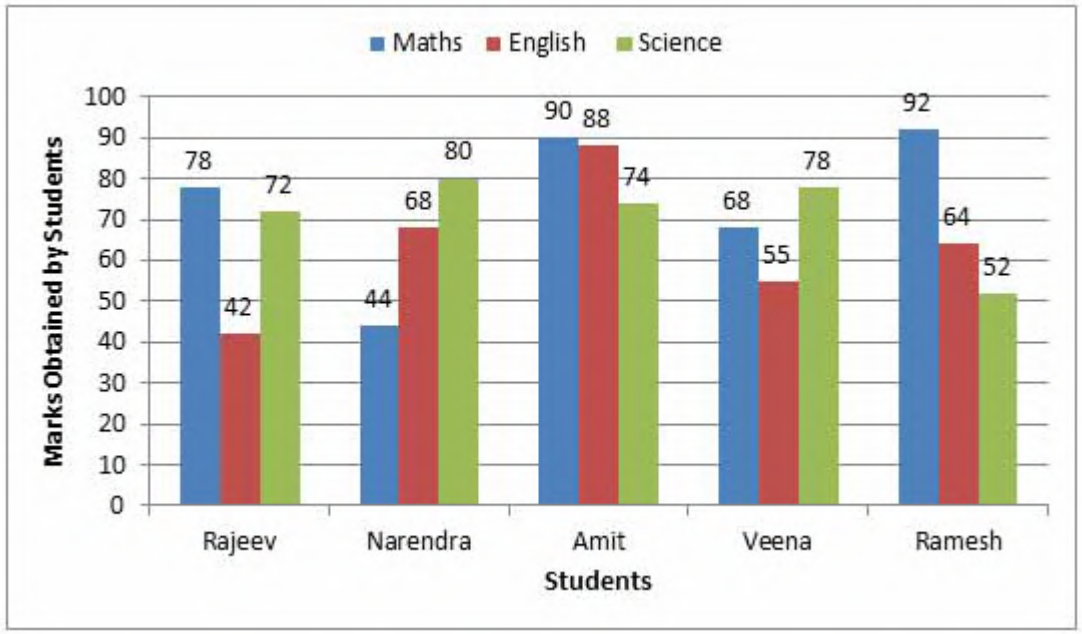
Options :

1. ✔ 52
2. ✖ 65
3. ✖ 39
4. ✖ 78

Question Number : 60 Question Id : 50389010202 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Read the following bar diagram carefully to answer the questions given below. Marks obtained by five students in different subjects - Maths, English and Science - in an examination.



If the maximum marks for each subject is 95, then who secured highest percentage of marks from all the subjects together?

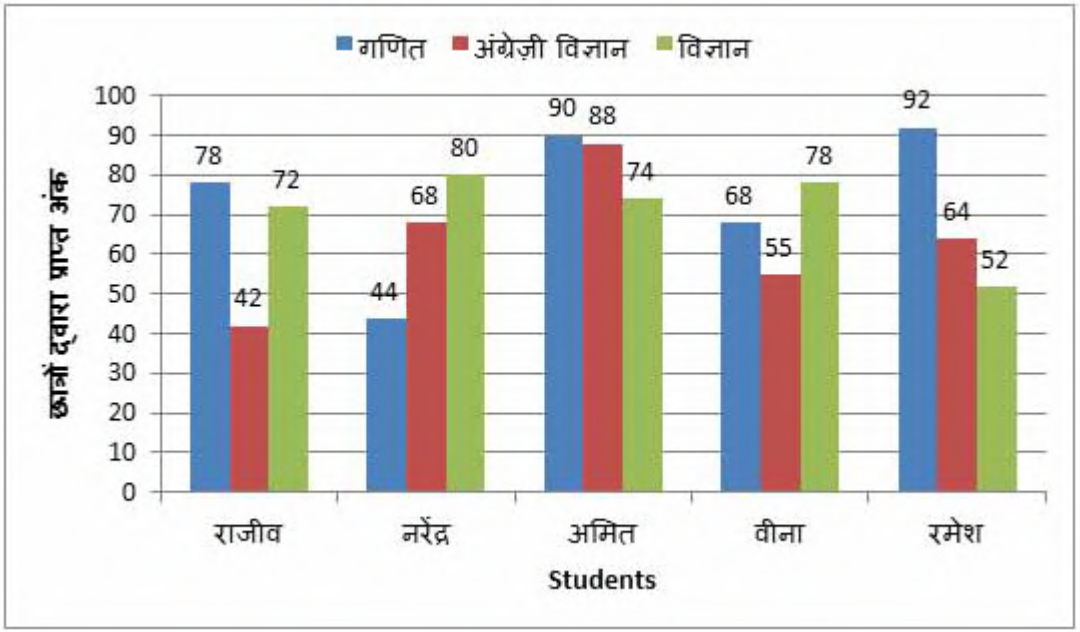
Options :

1. ✖ Rajeev
2. ✖ Narendra
3. ✔ Amit
4. ✖ Veena

Question Number : 60 Question Id : 50389010202 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

नीचे दिए गए प्रश्नों का उत्तर देने के लिए निम्नलिखित बार आरेख को ध्यान से पढ़ें। एक परीक्षा में विभिन्न विषयों - गणित, अंग्रेजी और विज्ञान में पांच छात्रों द्वारा प्राप्त अंक।



यदि प्रत्येक विषय के लिए अधिकतम अंक 95 हैं, तो सभी विषयों के एक साथ अधिकतम प्रतिशत अंक किसने प्राप्त किया ?

Options :

1. ✖ राजीव
2. ✖ नरेंद्र
3. ✔ अमित
4. ✖ वीणा

General English

Group Number :	4
Group Id :	503890264
Group Maximum Duration :	0
Group Minimum Duration :	0
Show Attended Group? :	No
Edit Attended Group? :	No
Break time :	0

Group Marks :	20
Is this Group for Examiner? :	No

General English

Section Id :	503890400
Section Number :	1
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	16
Number of Questions to be attempted :	16
Section Marks :	20
Enable Mark as Answered Mark for Review and Clear Response :	Yes
Sub-Section Number :	1
Sub-Section Id :	503890471
Question Shuffling Allowed :	Yes

Question Number : 61 Question Id : 50389010203 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

In the following question, four sentences are given out of which three sentences are grammatically incorrect while one is correct. Find out which sentence is grammatically correct and select the appropriate option.

Options :

1. ✖ Trump quickly fired back as he moved to inflict greater economic pain to Iran.
2. ✖ He will punish anyone who bought or trades the country's iron, steel, aluminum and copper.
3. ✖ The White House had already acted forcefully to prevent all countries to buy Iran's oil.
4. ✔ Tehran can expect further actions unless it fundamentally alters its conduct.

Question Number : 61 Question Id : 50389010203 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

In the following question, four sentences are given out of which three sentences are grammatically incorrect while one is correct. Find out which sentence is grammatically correct and select the appropriate option.

Options :

1. ✖ Trump quickly fired back as he moved to inflict greater economic pain to Iran.
2. ✖ He will punish anyone who bought or trades the country's iron, steel, aluminum and copper.
3. ✖ The White House had already acted forcefully to prevent all countries to buy Iran's oil.
4. ✔ Tehran can expect further actions unless it fundamentally alters its conduct.

Question Number : 62 Question Id : 50389010204 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Identify the segment in the sentence which contains the grammatical error from the given options.

Peter decides to revising his chapters instead of watching television.

Options :

1. ✖ Peter
2. ✔ to revising
3. ✖ instead of
4. ✖ watching

Question Number : 62 Question Id : 50389010204 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Identify the segment in the sentence which contains the grammatical error from the given options.

Peter decides to revising his chapters instead of watching television.

Options :

1. ✖ Peter
2. ✔ to revising
3. ✖ instead of
4. ✖ watching

Question Number : 63 Question Id : 50389010205 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Select the most appropriate option to substitute the underlined segment in the given sentence. If there is no need to substitute it, select 'No substitution required'.

What we do to the planet will determine what the planet do to us.

Options :

1. ✔ does to us
2. ✖ did to us
3. ✖ will do to us
4. ✖ No substitution required

Question Number : 63 Question Id : 50389010205 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Select the most appropriate option to substitute the underlined segment in the given sentence. If there is no need to substitute it, select 'No substitution required'.

What we do to the planet will determine what the planet do to us.

Options :

1. ✔ does to us
2. ✖ did to us
3. ✖ will do to us
4. ✖ No substitution required

Question Number : 64 Question Id : 50389010206 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Select the most appropriate option to substitute the underlined segment in the given sentence. If there is no need to substitute it, select 'No substitution required'.

Some policemen started heading into the midpoint as they suspected the situation could turn violent.

Options :

1. ✖ to
2. ✖ along
3. ✔ towards

4. ✖ No substitution required

Question Number : 64 Question Id : 50389010206 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Select the most appropriate option to substitute the underlined segment in the given sentence. If there is no need to substitute it, select 'No substitution required'.

Some policemen started heading into the midpoint as they suspected the situation could turn violent.

Options :

1. ✖ to
2. ✖ along
3. ✔ towards
4. ✖ No substitution required

Question Number : 65 Question Id : 50389010207 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Select the most appropriate option to fill in the blank.

The measures _____ to bring the budget into balance can only be described as unusual, perhaps even extreme.

Options :

1. ✖ take
2. ✖ took
3. ✖ taking
4. ✔ taken

Question Number : 65 Question Id : 50389010207 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Select the most appropriate option to fill in the blank.

The measures _____ to bring the budget into balance can only be described as unusual, perhaps even extreme.

Options :

1. ✖ take
2. ✖ took
3. ✖ taking
4. ✔ taken

Question Number : 66 Question Id : 50389010208 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Select the most appropriate option to fill in the blank.

In most situations, you will be _____ small doses of work at the beginning of a new job.

Options :

1. ✖ ordered
2. ✖ remarked
3. ✖ determined
4. ✔ assigned

Question Number : 66 Question Id : 50389010208 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Select the most appropriate option to fill in the blank.

In most situations, you will be _____ small doses of work at the beginning of a new job.

Options :

1. ✖ ordered
2. ✖ remarked
3. ✖ determined
4. ✔ assigned

Question Number : 67 Question Id : 50389010209 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Rearrange the following sentences in their correct order to form a meaningful paragraph.

P. Not too far from the bright lights of Mumbai, a silent scourge is killing thousands of young children.
Q. Their ill-fed bodies vulnerable to infection most succumbed to ailments as minor as diarrhea.
R. Stalked by chronic hunger and disease, nearly 30,000 children below the age of six have died in the last year alone in the state's rural belt.
S. It may be considered the country's dollar magnet and envied for its robust industrial base but this image of Maharashtra cloaks a macabre reality.

Options :

1. ✖ RQSP
2. ✔ SPRQ
3. ✖ QSRP
4. ✖ RSQP

Question Number : 67 Question Id : 50389010209 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Rearrange the following sentences in their correct order to form a meaningful paragraph.

P. Not too far from the bright lights of Mumbai, a silent scourge is killing thousands of young children.
Q. Their ill-fed bodies vulnerable to infection most succumbed to ailments as minor as diarrhea.
R. Stalked by chronic hunger and disease, nearly 30,000 children below the age of six have died in the last year alone in the state's rural belt.
S. It may be considered the country's dollar magnet and envied for its robust industrial base but this image of Maharashtra cloaks a macabre reality.

Options :

1. ✖ RQSP
2. ✔ SPRQ
3. ✖ QSRP
4. ✖ RSQP

Question Number : 68 Question Id : 50389010210 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

In the question given below, rearrange the sentences in the correct order, and choose the correct option. The first and sixth (last) statements are given in the right sequence and are fixed.

1. I was awakened in the night by a noise in the house.

P: I quickly put on my dressing gown and crept downstairs.
Q: In the living room I discovered two burglars breaking into my desk.
R: As I switched on the light I saw that it was 2 o'clock.
S: They were both tall, dark men.
6. As soon as they saw me standing there, they rushed to the window and jumped out.

Options :

1. ✖ PQRS
2. ✖ PQSR
3. ✖ PSRQ
4. ✔ RPQS

Question Number : 68 Question Id : 50389010210 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

In the question given below, rearrange the sentences in the correct order, and choose the correct option. The first and sixth (last) statements are given in the right sequence and are fixed.

1. I was awakened in the night by a noise in the house.
P: I quickly put on my dressing gown and crept downstairs.
Q: In the living room I discovered two burglars breaking into my desk.
R: As I switched on the light I saw that it was 2 o'clock.
S: They were both tall, dark men.
6. As soon as they saw me standing there, they rushed to the window and jumped out.

Options :

1. ✖ PQRS
2. ✖ PQSR
3. ✖ PSRQ
4. ✔ RPQS

Question Number : 69 Question Id : 50389010211 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Select the synonym of the given word.

APPARENT

Options :

1. ✔ Obvious
2. ✖ Hidden
3. ✖ Concealed
4. ✖ Latent

Question Number : 69 Question Id : 50389010211 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Select the synonym of the given word.

APPARENT

Options :

1. ✔ Obvious
2. ✖ Hidden
3. ✖ Concealed
4. ✖ Latent

Question Number : 70 Question Id : 50389010212 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Select the antonym of the given word.

ABUNDANCE

Options :

1. ✔ Scarcity
2. ✖ Surplus
3. ✖ Huge
4. ✖ Immense

Question Number : 70 Question Id : 50389010212 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Select the antonym of the given word.

ABUNDANCE

Options :

1. ✔ Scarcity
2. ✖ Surplus
3. ✖ Huge
4. ✖ Immense

Question Number : 71 Question Id : 50389010213 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Which of the following is correctly spelt?

Options :

1. ✔ Distinction
2. ✖ Destinction
3. ✖ Distination
4. ✖ Distiniction

Question Number : 71 Question Id : 50389010213 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Which of the following is correctly spelt?

Options :

1. ✔ Distinction
2. ✖ Destinction
3. ✖ Distination
4. ✖ Distiniction

Question Number : 72 Question Id : 50389010214 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Which of the following is incorrectly spelt?

Options :

1. ✖ Difference
2. ✖ Contrast
3. ✖ Dissimilarity
4. ✔ Disimilitude

Question Number : 72 Question Id : 50389010214 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Which of the following is incorrectly spelt?

Options :

1. ✖ Difference
2. ✖ Contrast
3. ✖ Dissimilarity
4. ✔ Disimilitude

Question Number : 73 Question Id : 50389010215 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Select the most appropriate meaning of the given idiom/ phrase.

Hit the hay

Options :

1. ✔ Go to bed
2. ✖ Being treated the same unpleasant way you have treated others
3. ✖ Go through something difficult
4. ✖ Getting a good start is important

Question Number : 73 Question Id : 50389010215 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Select the most appropriate meaning of the given idiom/ phrase.

Hit the hay

Options :

1. ✔ Go to bed
2. ✖ Being treated the same unpleasant way you have treated others
3. ✖ Go through something difficult
4. ✖ Getting a good start is important

Question Number : 74 Question Id : 50389010216 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Select the alternative which best expresses the meaning of the idiom/phrase bold in the sentence.

He was all **at sea** when he began his new job.

Options :

1. ✖ Happy
2. ✖ Sad
3. ✔ Puzzled
4. ✖ Triumphant

Question Number : 74 Question Id : 50389010216 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Select the alternative which best expresses the meaning of the idiom/phrase bold in the sentence.

He was all **at sea** when he began his new job.

Options :

1. ✖ Happy
2. ✖ Sad
3. ✔ Puzzled
4. ✖ Triumphant

Question Number : 75 Question Id : 50389010217 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Select the word which means the same as the group of words given.

The study of human societies and cultures and their development.

Options :

1. ✔ Anthropology
2. ✖ Calligraphy
3. ✖ Choreography
4. ✖ Physiotherapy

Question Number : 75 Question Id : 50389010217 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Select the word which means the same as the group of words given.

The study of human societies and cultures and their development.

Options :

1. ✔ Anthropology
2. ✖ Calligraphy
3. ✖ Choreography
4. ✖ Physiotherapy

Sub-Section Number :	2
Sub-Section Id :	503890472
Question Shuffling Allowed :	Yes

Question Id : 50389010218 Question Type : COMPREHENSION Sub Question Shuffling Allowed : Yes Group Comprehension Questions : No

Question Numbers : (76 to 80)

Read the following passage and answer the questions below.

Early childhood care and education is a very important area of study in Human Development. In addition to learning new things about the world around him or her, the infant is developing an attachment with family members, particularly with the mother and father, as well as with siblings,

and grandparents. The young child also begins to recognise other family members and people whom he or she meets regularly. This way, the child will also be able to distinguish between people who he/she recognises and those who look unfamiliar. This recognition is manifested in the behaviour where a young baby of around 8–12 months can show fear of unknown people. This fear is not simply an emotional display, it shows a capacity to recognise familiar faces and thereby indicates a fear of unfamiliar people.

Further, the child is deeply attached to the mother who is generally, but not always, the primary caregiver and can also start to cry when she leaves the room. The young child of around one year will try to cling to the mother or other caregiver and follow her everywhere. In most cases, this behaviour is soon discarded because the child develops the ability to know that the mother does not 'vanish' when she goes into another room. The child develops a sense of security even about the primary caregiver's absence. Further, the child is growing very rapidly, learning to walk, pick up things with precision, and manage his or her body in many ways. The child is also developing control over bladder and bowel movements.

Ideally, once the child is around three years of age, the activities and experiences begin to expand. However, experts differ on the exact age until which a child should be kept at home, before entry to formal school.

Sub questions

Question Number : 76 Question Id : 50389010219 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Why does a child start to cry when its mother leaves the room?

Options :

1. ✖ because child tries to recognise other things in the room
2. ✖ because child does not want to stay alone in the room
3. ✖ because child fears with other thing in absence of mother
4. ✔ because the child is deeply attached to the mother the primary caregiver

Question Number : 77 Question Id : 50389010220 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

A young baby of around 8–12 months can show fear of unknown people. What does this line refer to?

Options :

1. ✖ capacity of the child to develop control over bladder and bowel movements
2. ✔ capacity to recognise familiar faces and thereby indicates a fear of unfamiliar people
3. ✖ capacity to learn to walk, pick up things with precision, and manage his or her body in many ways
4. ✖ the child is developing an attachment with family members, particularly with the mother and father

Question Number : 78 Question Id : 50389010221 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

According to the given passage, child of which stage group will try to cling to the caregiver and follow her everywhere?

Options :

1. ✖ at the infant stage
2. ✖ two years of age
3. ✔ around one year of age
4. ✖ three years of age

Question Number : 79 Question Id : 50389010222 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Which of the following best expresses the opposite meaning to the given word “Discarded”?

Options :

1. ✔ retained
2. ✖ dismissed
3. ✖ cast-off
4. ✖ disposed

Question Number : 80 Question Id : 50389010223 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Which of the following statements is incorrect according to the given passage?

Options :

1. ✔ The child does not develop a sense of security about the primary caregiver’s absence when it is around one year of age
2. ✖ Early childhood care and education is a very important area of study in Human Development
3. ✖ The young child also begins to recognise other family members and people whom he or she meets regularly
4. ✖ Ideally, once the child is around three years of age, the activities and experiences begin to expand

Question Id : 50389010218 Question Type : COMPREHENSION Sub Question Shuffling Allowed : Yes Group Comprehension Questions : No

Question Numbers : (76 to 80)

Read the following passage and answer the questions below.

Early childhood care and education is a very important area of study in Human Development. In addition to learning new things about the world around him or her, the infant is developing an attachment with family members, particularly with the mother and father, as well as with siblings, and grandparents. The young child also begins to recognise other family members and people whom he or she meets regularly. This way, the child will also be able to distinguish between people who he/she recognises and those who look unfamiliar. This recognition is manifested in the behaviour where a young baby of around 8–12 months can show fear of unknown people. This fear is not simply an emotional display, it shows a capacity to recognise familiar faces and thereby indicates a fear of unfamiliar people.

Further, the child is deeply attached to the mother who is generally, but not always, the primary caregiver and can also start to cry when she leaves the room. The young child of around one year will try to cling to the mother or other caregiver and follow her everywhere. In most cases, this behaviour is soon discarded because the child develops the ability to know that the mother does not 'vanish' when she goes into another room. The child develops a sense of security even about the primary caregiver's absence. Further, the child is growing very rapidly, learning to walk, pick up things with precision, and manage his or her body in many ways. The child is also developing control over bladder and bowel movements.

Ideally, once the child is around three years of age, the activities and experiences begin to expand. However, experts differ on the exact age until which a child should be kept at home, before entry to formal school.

Sub questions

Question Number : 76 Question Id : 50389010219 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Why does a child start to cry when its mother leaves the room?

Options :

1. ✖ because child tries to recognise other things in the room
2. ✖ because child does not want to stay alone in the room
3. ✖ because child fears with other thing in absence of mother
4. ✔ because the child is deeply attached to the mother the primary caregiver

Question Number : 77 Question Id : 50389010220 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

A young baby of around 8–12 months can show fear of unknown people. What does this line refer to?

Options :

1. ✖ capacity of the child to develop control over bladder and bowel movements
2. ✔ capacity to recognise familiar faces and thereby indicates a fear of unfamiliar people
3. ✖ capacity to learn to walk, pick up things with precision, and manage his or her body in many ways
4. ✖ the child is developing an attachment with family members, particularly with the mother and father

Question Number : 78 Question Id : 50389010221 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

According to the given passage, child of which stage group will try to cling to the caregiver and follow her everywhere?

Options :

1. ✖ at the infant stage
2. ✖ two years of age
3. ✔ around one year of age
4. ✖ three years of age

Question Number : 79 Question Id : 50389010222 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Which of the following best expresses the opposite meaning to the given word “Discarded”?

Options :

1. ✔ retained
2. ✖ dismissed
3. ✖ cast-off
4. ✖ disposed

Question Number : 80 Question Id : 50389010223 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Which of the following statements is incorrect according to the given passage?

Options :

1. ✔ The child does not develop a sense of security about the primary caregiver’s absence when it is around one year of age
2. ✖ Early childhood care and education is a very important area of study in Human Development
3. ✖ The young child also begins to recognise other family members and people whom he or she meets regularly

4. ✖ Ideally, once the child is around three years of age, the activities and experiences begin to expand

General Hindi

Group Number :	5
Group Id :	503890265
Group Maximum Duration :	0
Group Minimum Duration :	0
Show Attended Group? :	No
Edit Attended Group? :	No
Break time :	0
Group Marks :	20
Is this Group for Examiner? :	No

General Hindi

Section Id :	503890401
Section Number :	1
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	16
Number of Questions to be attempted :	16
Section Marks :	20
Enable Mark as Answered Mark for Review and Clear Response :	Yes
Sub-Section Number :	1
Sub-Section Id :	503890473
Question Shuffling Allowed :	Yes

Question Number : 81 Question Id : 50389010224 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

निम्नलिखित में से में कौन-सा शब्द द्वंद्व समास का उदाहरण नहीं है?

Options :

1. ✖ मम्मी-पापा
2. ✖ आग-पानी
3. ✔ दोपहर
4. ✖ सीताराम

Question Number : 81 Question Id : 50389010224 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

निम्नलिखित में से में कौन-सा शब्द द्वंद्व समास का उदाहरण नहीं है?

Options :

1. ✖ मम्मी-पापा
2. ✖ आग-पानी
3. ✔ दोपहर
4. ✖ सीताराम

Question Number : 82 Question Id : 50389010225 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

निम्नलिखित में से रूढ़ शब्द का चयन कीजिए-

Options :

1. ✖ नमकीन
2. ✔ किताब
3. ✖ पंकज
4. ✖ पुस्तकालय

Question Number : 82 Question Id : 50389010225 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

निम्नलिखित में से रूढ़ शब्द का चयन कीजिए-

Options :

1. ✖ नमकीन
2. ✔ किताब
3. ✖ पंकज
4. ✖ पुस्तकालय

Question Number : 83 Question Id : 50389010226 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

निम्नलिखित में से कौन-सा शब्द निजवाचक सर्वनाम है?

Options :

1. ✖ हम
2. ✖ वह
3. ✖ कौन
4. ✔ खुद

Question Number : 83 Question Id : 50389010226 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

निम्नलिखित में से कौन-सा शब्द निजवाचक सर्वनाम है?

Options :

1. ✖ हम
2. ✖ वह
3. ✖ कौन
4. ✔ खुद

Question Number : 84 Question Id : 50389010227 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

जिन क्रियाओं के कार्य का फल कर्ता पर ही पड़ता है वह क्रिया _____ कहलाती हैं।

Options :

1. ✖ सकर्मक क्रिया

2. ✖ प्रेरणार्थक क्रिया
3. ✔ अकर्मक क्रिया
4. ✖ पूर्वकालिक क्रिया

Question Number : 84 Question Id : 50389010227 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

जिन क्रियाओं के कार्य का फल कर्ता पर ही पड़ता है वह क्रिया _____ कहलाती हैं।

Options :

1. ✖ सकर्मक क्रिया
2. ✖ प्रेरणार्थक क्रिया
3. ✔ अकर्मक क्रिया
4. ✖ पूर्वकालिक क्रिया

Question Number : 85 Question Id : 50389010228 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

निम्नलिखित में से कौन-सा शब्द "ऊर्मि" का पर्यायवाची नहीं है?

Options :

1. ✖ लहर
2. ✔ कुढ़न
3. ✖ तरंग
4. ✖ धारा

Question Number : 85 Question Id : 50389010228 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

निम्नलिखित में से कौन-सा शब्द "ऊर्मि" का पर्यायवाची नहीं है?

Options :

1. ✖ लहर
2. ✔ कुढ़न

3. ✖ तरंग
4. ✖ धारा

Question Number : 86 Question Id : 50389010229 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

निम्नलिखित में से अशुद्ध वर्तनी वाले शब्द का चयन कीजिए-

Options :

1. ✔ अनाशक्ति
2. ✖ तिरस्कार
3. ✖ समृद्धि
4. ✖ एकरूपता

Question Number : 86 Question Id : 50389010229 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

निम्नलिखित में से अशुद्ध वर्तनी वाले शब्द का चयन कीजिए-

Options :

1. ✔ अनाशक्ति
2. ✖ तिरस्कार
3. ✖ समृद्धि
4. ✖ एकरूपता

Question Number : 87 Question Id : 50389010230 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

निम्नलिखित में से "कृपण" का विलोम शब्द कौन-सा है?

Options :

1. ✖ कंजूस
2. ✖ सूम
3. ✖ लोभी

4. ✔ उदार

Question Number : 87 Question Id : 50389010230 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

निम्नलिखित में से "कृपण" का विलोम शब्द कौन-सा है?

Options :

1. ✖ कंजूस
2. ✖ सूम
3. ✖ लोभी
4. ✔ उदार

Question Number : 88 Question Id : 50389010231 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

दिए गए वाक्यांश के लिए निम्न में से एक शब्द का चयन कीजिए-

विनिमय के बदले ली गई वस्तु-

Options :

1. ✔ आपमित्यक
2. ✖ आम्रेडित
3. ✖ आधारी
4. ✖ आरब्ध

Question Number : 88 Question Id : 50389010231 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

दिए गए वाक्यांश के लिए निम्न में से एक शब्द का चयन कीजिए-

विनिमय के बदले ली गई वस्तु-

Options :

1. ✔ आपमित्यक

2. ✖ आम्रेडित
3. ✖ आधारी
4. ✖ आरब्ध

Question Number : 89 Question Id : 50389010232 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

निम्नलिखित में से किस वाक्य में "अपादान कारक" की विभक्ति का प्रयोग किया गया है?

Options :

1. ✖ अनिल अजय का भाई है।
2. ✖ उसने लड़के को मिठाइयां दी।
3. ✔ पेड़ से पत्ता गिरा।
4. ✖ ठीक समय पर आ जाना।

Question Number : 89 Question Id : 50389010232 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

निम्नलिखित में से किस वाक्य में "अपादान कारक" की विभक्ति का प्रयोग किया गया है?

Options :

1. ✖ अनिल अजय का भाई है।
2. ✖ उसने लड़के को मिठाइयां दी।
3. ✔ पेड़ से पत्ता गिरा।
4. ✖ ठीक समय पर आ जाना।

Question Number : 90 Question Id : 50389010233 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

निम्नलिखित में से एकवचन-बहुवचन का गलत गुग्म कौन-सा है?

Options :

1. ✖ बहन-बहनें
2. ✔ कामना- कामनें

3. ✖ रात-रातें
4. ✖ सड़क-सड़के

Question Number : 90 Question Id : 50389010233 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

निम्नलिखित में से एकवचन-बहुवचन का गलत गुग्म कौन-सा है?

Options :

1. ✖ बहन-बहनें
2. ✔ कामना- कामनें
3. ✖ रात-रातें
4. ✖ सड़क-सड़के

Question Number : 91 Question Id : 50389010234 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

निम्नलिखित में से अशुद्ध वाक्य का चयन कीजिए-

Options :

1. ✖ मंत्री जी की गम्भीर मुद्रा देखकर मैं बहुत प्रभावित हुआ।
2. ✖ आप इन्हें इतना परेशान क्यों कर रहे हैं?
3. ✖ निरपराध को दण्ड देना पाप है।
4. ✔ साहब ने किसी को अन्दर ना जाने दिया जाए।

Question Number : 91 Question Id : 50389010234 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

निम्नलिखित में से अशुद्ध वाक्य का चयन कीजिए-

Options :

1. ✖ मंत्री जी की गम्भीर मुद्रा देखकर मैं बहुत प्रभावित हुआ।
2. ✖ आप इन्हें इतना परेशान क्यों कर रहे हैं?
3. ✖ निरपराध को दण्ड देना पाप है।

4. ✔ साहब ने किसी को अन्दर ना जाने दिया जाए।

Question Number : 92 Question Id : 50389010235 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

निम्नलिखित में से वाक्य के शुद्ध रूप का चयन कीजिए-

Options :

1. ✔ पिछले मंगलवार को स्कूल बन्द था।
2. ✖ पिछले मंगलवार को स्कूल बन्द रहेगा।
3. ✖ पिछले मंगलवार को स्कूल बन्द है।
4. ✖ पिछले मंगलवार को स्कूल बन्द होना है।

Question Number : 92 Question Id : 50389010235 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

निम्नलिखित में से वाक्य के शुद्ध रूप का चयन कीजिए-

Options :

1. ✔ पिछले मंगलवार को स्कूल बन्द था।
2. ✖ पिछले मंगलवार को स्कूल बन्द रहेगा।
3. ✖ पिछले मंगलवार को स्कूल बन्द है।
4. ✖ पिछले मंगलवार को स्कूल बन्द होना है।

Question Number : 93 Question Id : 50389010236 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

निम्नलिखित में से किस मुहावरे का अर्थ "सस्ते होना" है?

Options :

1. ✖ थाली का बैंगन।
2. ✖ दाँत काटी रोटी।
3. ✔ दमड़ी के तीन होना।
4. ✖ दाल जूतियों में बँटना।

Question Number : 93 Question Id : 50389010236 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

निम्नलिखित में से किस मुहावरे का अर्थ "सस्ते होना" है?

Options :

1. ✖ थाली का बैंगन।
2. ✖ दाँत काटी रोटी।
3. ✔ दमड़ी के तीन होना।
4. ✖ दाल जूतियों में बँटना।

Question Number : 94 Question Id : 50389010237 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

निम्नलिखित में से किस लोकोक्ति का अर्थ "जिधर जाएँ उधर ही मुसीबत" है?

Options :

1. ✖ आधी छोड़ सारी को धावे, आधी मिलै न पूरी पावै।
2. ✔ आगे जाए घुटने टूटे, पीछे देखे आँखें फूटे।
3. ✖ आँख का अंधा नाम नयनसुख।
4. ✖ आम खाने से काम, पेड़ गिनने से क्या काम।

Question Number : 94 Question Id : 50389010237 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

निम्नलिखित में से किस लोकोक्ति का अर्थ "जिधर जाएँ उधर ही मुसीबत" है?

Options :

1. ✖ आधी छोड़ सारी को धावे, आधी मिलै न पूरी पावै।
2. ✔ आगे जाए घुटने टूटे, पीछे देखे आँखें फूटे।
3. ✖ आँख का अंधा नाम नयनसुख।
4. ✖ आम खाने से काम, पेड़ गिनने से क्या काम।

Question Number : 95 Question Id : 50389010238 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

निम्नलिखित में से उचित विराम चिन्ह का चयन कीजिए-

दो प्रथम-द्वितीय प्रेरणार्थक के योग के बीच _____ चिन्ह का प्रयोग किया जाता है।

Options :

1. ✔ योजक चिन्ह
2. ✖ अल्पविराम चिन्ह
3. ✖ उद्धरण चिन्ह
4. ✖ लाघवविराम चिन्ह

Question Number : 95 Question Id : 50389010238 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

निम्नलिखित में से उचित विराम चिन्ह का चयन कीजिए-

दो प्रथम-द्वितीय प्रेरणार्थक के योग के बीच _____ चिन्ह का प्रयोग किया जाता है।

Options :

1. ✔ योजक चिन्ह
2. ✖ अल्पविराम चिन्ह
3. ✖ उद्धरण चिन्ह
4. ✖ लाघवविराम चिन्ह

Sub-Section Number :	2
Sub-Section Id :	503890474
Question Shuffling Allowed :	Yes

Question Id : 50389010239 Question Type : COMPREHENSION Sub Question Shuffling Allowed : Yes Group Comprehension Questions : No

Question Numbers : (96 to 100)

निम्नलिखित गद्यांश का ध्यानपूर्वक अध्ययन कर प्रश्नों के उत्तर दीजिए-

तुलसी जैसा कवि काव्य की विशुद्ध, मनोमयी, कल्पना-प्रवण तथा श्रृंगारात्मक भावभूमियों के प्रति उत्साही नहीं हो सकता। उनका सन्त-हृदय परम कारूणिक

राम के प्रति ही उन्मुख हो सकता है जो जीवन के धर्ममय सौंदर्य, मर्यादापूर्ण शील और आत्मिक शौर्य के प्रतीक हैं। विजय-रथ के रूपक में उन्होनें सन्त जीवन की रूपरेखा उभारी है और अपनी रामकथा को इसी सन्तत्व की चरितार्थता बना दिया है। उनका काव्य भारतीय जीवन की सबसे बड़ी आकांक्षा मर्यादित जीवन-चर्या अथवा 'संन्त-रहनि' को वाणी देता है। धर्ममय जीवन की आकांक्षा भारतीय संस्कृति का वैशिष्टय हैं। तुलसी के काव्य में धर्म का अनाविल, अनावरण और अक्षुण्ण रूप ही प्रकट हुआ है। मध्ययुग की आध्यात्मिकता का प्रतिनिधित्व करते हुए भी उनका काव्य भारतीय आत्मा के चिरन्तन सौंदर्य का प्रतिनिधि हैं जो सत्य,तप,करूणा और मैत्री में ही आरोहण के देवधर्मी मूल्यों को अनावृत करता है। उनके काव्य में हमें श्रेष्ठ कवित्व ही नहीं मिलता, उसके आधार पर हम सन्त-कवित्व की रूपरेखा भी निर्धारित कर सकते हैं। भक्ति उनके सन्तत्व की आंतरिक भाव-साधना हैं। इस भाव-साधना की वाणी की अप्रतिम क्षमता देकर उन्होनें निष्कम्प दीपशिखा की भाँति अपनी काव्य-कला को नि:संग और निवैयक्तिक दीप्ति से भरा है।

Sub questions

Question Number : 96 Question Id : 50389010240 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

निम्नलिखित में से उपर्युक्त गद्यांश का उचित शीर्षक कौन-सा है?

Options :

1. ✔ तुलसी की काव्य-कला।
2. ✖ सन्तत्व का महत्व।
3. ✖ आध्यात्मिकता एवं चिरन्तन।
4. ✖ श्रृंगारात्मक एवं मनोमयी कला।

Question Number : 97 Question Id : 50389010241 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

उपर्युक्त गद्यांश के अनुसार, तुलसी के काव्य में धर्म का _____ ही प्रकट हुआ है।

Options :

1. ✖ अनाविल रूप
2. ✖ अनावरण रूप
3. ✖ अक्षुण्ण रूप
4. ✔ अनाविल, अनावरण और अक्षुण्ण रूप

Question Number : 98 Question Id : 50389010242 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

निम्नलिखित में से तुलसी के काव्य में किस भाव-साधना को वाणी दी गई है?

Options :

1. ✖ योग एवं ज्ञान को।
2. ✔ भक्ति-भावना को।
3. ✖ प्रकृति-सौन्दर्य।
4. ✖ शैक्षिक-भावना को।

Question Number : 99 Question Id : 50389010243 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

निम्नलिखित में से कौन-सा शब्द "आकांक्षा" का पर्यायवाची नहीं है?

Options :

1. ✖ ईप्सा
2. ✖ इच्छा
3. ✔ अनाकांक्षा
4. ✖ कामना

Question Number : 100 Question Id : 50389010244 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

उपर्युक्त गद्यांश के अनुसार तुलसी ने विजय-रथ के रूपक में _____की रूपरेखा उभारी है।

Options :

1. ✖ धूर्त जीवन
2. ✔ सन्त जीवन
3. ✖ दुर्जन जीवन
4. ✖ कृतघ्न जीवन

Question Id : 50389010239 Question Type : COMPREHENSION Sub Question Shuffling Allowed : Yes Group Comprehension Questions : No

Question Numbers : (96 to 100)

निम्नलिखित गद्यांश का ध्यानपूर्वक अध्ययन कर प्रश्नों के उत्तर दीजिए-

तुलसी जैसा कवि काव्य की विशुद्ध, मनोमयी, कल्पना-प्रवण तथा श्रृंगारात्मक भावभूमियों के प्रति उत्साही नहीं हो सकता। उनका सन्त-हृदय परम कारूणिक

राम के प्रति ही उन्मुख हो सकता है जो जीवन के धर्ममय सौंदर्य, मर्यादापूर्ण शील और आत्मिक शौर्य के प्रतीक हैं। विजय-रथ के रूपक में उन्होनें सन्त जीवन की रूपरेखा उभारी है और अपनी रामकथा को इसी सन्तत्व की चरितार्थता बना दिया है। उनका काव्य भारतीय जीवन की सबसे बड़ी आकांक्षा मर्यादित जीवन-चर्या अथवा 'संन्त-रहनि' को वाणी देता है। धर्ममय जीवन की आकांक्षा भारतीय संस्कृति का वैशिष्टय हैं। तुलसी के काव्य में धर्म का अनाविल, अनावरण और अक्षुण्ण रूप ही प्रकट हुआ है। मध्ययुग की आध्यात्मिकता का प्रतिनिधित्व करते हुए भी उनका काव्य भारतीय आत्मा के चिरन्तन सौंदर्य का प्रतिनिधि हैं जो सत्य,तप,करूणा और मैत्री में ही आरोहण के देवधर्मी मूल्यों को अनावृत करता है। उनके काव्य में हमें श्रेष्ठ कवित्व ही नहीं मिलता, उसके आधार पर हम सन्त-कवित्व की रूपरेखा भी निर्धारित कर सकते हैं। भक्ति उनके सन्तत्व की आंतरिक भाव-साधना हैं। इस भाव-साधना की वाणी की अप्रतिम क्षमता देकर उन्होनें निष्कम्प दीपशिखा की भाँति अपनी काव्य-कला को नि:संग और निवैयक्तिक दीप्ति से भरा है।

Sub questions

Question Number : 96 Question Id : 50389010240 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

निम्नलिखित में से उपर्युक्त गद्यांश का उचित शीर्षक कौन-सा है?

Options :

1. ✔ तुलसी की काव्य-कला।
2. ✖ सन्तत्व का महत्व।
3. ✖ आध्यात्मिकता एवं चिरन्तन।
4. ✖ श्रृंगारात्मक एवं मनोमयी कला।

Question Number : 97 Question Id : 50389010241 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

उपर्युक्त गद्यांश के अनुसार, तुलसी के काव्य में धर्म का _____ ही प्रकट हुआ है।

Options :

1. ✖ अनाविल रूप
2. ✖ अनावरण रूप
3. ✖ अक्षुण्ण रूप
4. ✔ अनाविल, अनावरण और अक्षुण्ण रूप

Question Number : 98 Question Id : 50389010242 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

निम्नलिखित में से तुलसी के काव्य में किस भाव-साधना को वाणी दी गई है?

Options :

1. ✖ योग एवं ज्ञान को।
2. ✔ भक्ति-भावना को।
3. ✖ प्रकृति-सौन्दर्य।
4. ✖ शैक्षिक-भावना को।

Question Number : 99 Question Id : 50389010243 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

निम्नलिखित में से कौन-सा शब्द "आकांक्षा" का पर्यायवाची नहीं है?

Options :

1. ✖ ईप्सा
2. ✖ इच्छा
3. ✔ अनाकांक्षा
4. ✖ कामना

Question Number : 100 Question Id : 50389010244 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

उपर्युक्त गद्यांश के अनुसार तुलसी ने विजय-रथ के रूपक में _____की रूपरेखा उभारी है।

Options :

1. ✖ धूर्त जीवन
2. ✔ सन्त जीवन
3. ✖ दुर्जन जीवन
4. ✖ कृतघ्न जीवन

Discipline1

Group Number :	6
Group Id :	503890266
Group Maximum Duration :	0

Group Minimum Duration :	0
Show Attended Group? :	No
Edit Attended Group? :	No
Break time :	0
Group Marks :	20
Is this Group for Examiner? :	No

Discipline1

Section Id :	503890402
Section Number :	1
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	20
Number of Questions to be attempted :	20
Section Marks :	20
Enable Mark as Answered Mark for Review and Clear Response :	Yes
Sub-Section Number :	1
Sub-Section Id :	503890475
Question Shuffling Allowed :	Yes

Question Number : 101 Question Id : 50389010245 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Which of the following is true?

Options :

1. ✔ $A \cap \emptyset = \emptyset$

2. ✖ $A \cup \emptyset = \emptyset$

3. ✖ $A \cup A = \emptyset$

4. ✖ $A \cap A = \emptyset$

Question Number : 101 Question Id : 50389010245 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

निम्नलिखित में से कौन-सा सही है?

Options :

1. ✔ $A \cap \emptyset = \emptyset$

2. ✖ $A \cup \emptyset = \emptyset$

3. ✖ $A \cup A = \emptyset$

4. ✖ $A \cap A = \emptyset$

Question Number : 102 Question Id : 50389010246 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Which of the following is not true?

Options :

1. ✖ $A- (B \cap C) = (A - B) \cup (A - C)$

2. ✖ $A \Delta B = (A - B) \cup (B - A)$

3. ✖ $A \Delta \emptyset = A$

4. ✔ $A \Delta A = A$

Question Number : 102 Question Id : 50389010246 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

निम्नलिखित में से कौनसा सही नहीं है?

Options :

1. ✖ $A- (B \cap C) = (A - B) \cup (A - C)$

2. ✖ $A \Delta B = (A - B) \cup (B - A)$

3. ✖ $A \Delta \emptyset = A$

4. ✔ $A \Delta A = A$

Question Number : 103 Question Id : 50389010247 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

If $A \cap B = B$ holds for all sets B of the universal Set S, then

Options :

1. ✖ $A' = B$

2. ✔ $A = S$

3. ✖ $A = B$

4. ✖ $A = ø$

Question Number : 103 Question Id : 50389010247 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

$A \cap B = B$, सार्वत्रिक समुच्चय S के सभी समुच्चयों B के लिए धारण करता है, तो –

Options :

1. ✖ $A' = B$

2. ✔ A = S
3. ✖ A = B
4. ✖ A = ø

Question Number : 104 Question Id : 50389010248 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0.25

Let $F: R-\{1\} \to R-\{1\}$ defined by $f(x)=\frac{x+1}{x-1}$, $x \in R-\{1\}$, then f^{1} is -

Options :

1. ✖ $f^{-1}(x)=\frac{x-1}{x+1}, x \in R$

2. ✖ $f^{-1}(x)=\frac{x-1}{x+1}, x \in R-\{1\}$

3. ✔ $f^{-1}(x)=\frac{x+1}{x-1}, x \in R-\{1\}$

4. ✖ $f^{-1}(x)=\frac{x+1}{x-1}, x \in R$

Question Number : 104 Question Id : 50389010248 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0.25

मान लीजिये $f(x)=\frac{x+1}{x-1}$, $x \in R-\{1\}$ द्वारा परिभाषित $F: R-\{1\} \to R-\{1\}$ है,
तो f^{-1} है -

Options :

1. ✖ $f^{-1}(x)=\frac{x-1}{x+1}, x \in R$

2. ✖ $f^{-1}(x)=\frac{x-1}{x+1}, x \in R-\{1\}$

3. ✔ $f^{-1}(x)=\frac{x+1}{x-1}, x \in R-\{1\}$

4. ✖ $f^{-1}(x)=\frac{x+1}{x-1}, x \in R$

Question Number : 105 Question Id : 50389010249 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Let $f: \mathbf{Z} \rightarrow \mathbf{Q}$ defined by $f(x) = 2^x, x \in \mathbf{Z}$, then f is –

Options :

1. ✖ Surjective but not injective
2. ✔ Injective but not surjective
3. ✖ Both injective and surjective
4. ✖ Neither injective nor surjective

Question Number : 105 Question Id : 50389010249 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

मान लीजिये $f(x) = 2^x, x \in \mathbf{Z}$ द्वारा परिभाषित $f: \mathbf{Z} \rightarrow \mathbf{Q}$ है, तो f है –

Options :

1. ✖ आच्छादी किन्तु एकैक नहीं
2. ✔ एकैक किन्तु आच्छादी नहीं
3. ✖ एकैक व आच्छादी दोनों ही

4. ✖ ना तो एकैक ना ही आच्छादी

Question Number : 106 Question Id : 50389010250 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

A, B, C are sub-sets of the universal set S and if $A \cup B = A \cup C$ and $A' \cup B = A' \cup C$ then-

Options :

1. ✔ $B = C$
2. ✖ $A = B$
3. ✖ $B' = C$
4. ✖ $A' = B$

Question Number : 106 Question Id : 50389010250 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

A, B, C सार्वत्रिक समुच्चय S, के उपसमुच्चय है और यदि $A \cup B = A \cup C$ और $A' \cup B = A' \cup C$ हो, तो -

Options :

1. ✔ $B = C$
2. ✖ $A = B$
3. ✖ $B' = C$
4. ✖ $A' = B$

Question Number : 107 Question Id : 50389010251 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

A relation ρ is defined on a set N by " aρb if and only if a is divisible by b" for all a, b ∈ N. Then ρ is –

Options :

1. ✔ Reflexive and transitive
2. ✖ Reflexive and systematic
3. ✖ Equivalence
4. ✖ Systematic and transitive

Question Number : 107 Question Id : 50389010251 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

एक संबंध ρ समुच्चय N पर इस प्रकार परिभाषित है "aρb यदि और केवल यदि a, b से विभाज्य हो तो", सभी a, b ∈ N के लिए | तो ρ है –

Options :

1. ✔ स्वतुल्य और संक्रामक
2. ✖ स्वतुल्य और सममित
3. ✖ तुल्यता संबंध
4. ✖ सममित और संक्रामक

Question Number : 108 Question Id : 50389010252 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

A If S ={1, 2, 3, 4} and f = $\begin{pmatrix}1&2&3&4\\1&3&4&2\end{pmatrix}$, g = $\begin{pmatrix}1&2&3&4\\2&3&4&1\end{pmatrix}$, then fg is –

Note: For this question, discrepancy is found in question/answer. So,this question is ignored for all candidates.

Options :

1. $\begin{pmatrix}1&2&3&4\\4&2&3&1\end{pmatrix}$

2. $\begin{pmatrix}1&2&3&4\\3&2&1&4\end{pmatrix}$

3. $\begin{pmatrix}1&2&3&4\\3&4&2&1\end{pmatrix}$

4. $\begin{pmatrix}1&2&3&4\\2&4&1&3\end{pmatrix}$

Question Number : 108 Question Id : 50389010252 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

यदि $S = \{1, 2, 3, 4\}$ और $f = \begin{pmatrix}1&2&3&4\\1&3&4&2\end{pmatrix}$, $g = \begin{pmatrix}1&2&3&4\\2&3&4&1\end{pmatrix}$, तो fg है –

Note: For this question, discrepancy is found in question/answer. So,this question is ignored for all candidates.

Options :

1. $\begin{pmatrix}1&2&3&4\\4&2&3&1\end{pmatrix}$

2. $\begin{pmatrix}1&2&3&4\\3&2&1&4\end{pmatrix}$

3. $\begin{pmatrix}1&2&3&4\\3&4&2&1\end{pmatrix}$

4. $\begin{pmatrix}1&2&3&4\\2&4&1&3\end{pmatrix}$

Question Number : 109 Question Id : 50389010253 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Let f: A → B and g: B → C be both injective mapping such that gof:A → C is injective, then

Note: For this question, discrepancy is found in question/answer. So,this question is ignored for all candidates.

Options :

1. g is injective but f need not be
2. f is injective but g need not be
3. both f and g are injective
4. both f and g are not injective

Question Number : 109 Question Id : 50389010253 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

मान लीजिये f: A → B और g: B → C दोनों एकैक मानचित्रण है की gof:A → C, तो -

Note: For this question, discrepancy is found in question/answer. So,this question is ignored for all candidates.

Options :

1. g एकैक है किन्तु f को एकैक होने की जरुरत नहीं है
2. f एकैक है किन्तु g को एकैक होने की जरुरत नहीं है
3. f एवं g दोनों ही एकैक है
4. f एवं g दोनों ही एकैक नहीं है

Question Number : 110 Question Id : 50389010254 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

The function f: $\mathbf{R} \rightarrow \left[-\frac{1}{2}, \frac{1}{2}\right]$, defined as $f(x) = \frac{x}{1+x^2}$, is-

Options :

1. ✖ Surjective but not injective
2. ✖ Injective but not surjective
3. ✖ Neither injective nor surjective
4. ✔ Invertible

Question Number : 110 Question Id : 50389010254 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

$f(x)=\frac{x}{1+x^2}$ द्वारा परिभाषित फलन $f: \mathbf{R} \rightarrow \left[-\frac{1}{2}, \frac{1}{2}\right]$ है -

Options :

1. ✖ आच्छादि किन्तु एकैक नहीं
2. ✖ एकैक किन्तु आच्छादी नहीं
3. ✖ ना ही एकैक और ना ही आच्छादी
4. ✔ व्युत्क्रमणीय

Question Number : 111 Question Id : 50389010255 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

How many elements (Permutations) in S_6 commutes with $\sigma = (123)(34) \in S_6$?

Options :

1. ✖ 2
2. ✖ 5
3. ✔ 8
4. ✖ 6

Question Number : 111 Question Id : 50389010255 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

S_6 में कितने अवयव (क्रमचय) $\sigma = (123)(34) \in S_6$ के साथ आवागमन करते हैं?

Options :

1. ✖ 2
2. ✖ 5
3. ✔ 8
4. ✖ 6

Question Number : 112 Question Id : 50389010256 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

If A, B, C, are three sets, then the Set A - (B - C) is equal to

Options :

1. ✔ $(A - B) \cup (A \cap C)$

2. ✖ $(A - B) \cap C$

3. ✖ $(A - B) \cap (B - C)$

4. ✖ $A \cap (B - C)$

Question Number : 112 Question Id : 50389010256 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

यदि A, B, C तीन समुच्चय हो, तो समुच्चय A - (B - C) है –

Options :

1. ✔ $(A - B) \cup (A \cap C)$

2. ✖ $(A - B) \cap C$

3. ✖ $(A - B) \cap (B - C)$

4. ✖ $A \cap (B - C)$

Question Number : 113 Question Id : 50389010257 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

The function f : [0, 3] → [1, 2, 9], defined by $f(x) = 2x^3 - 15x^2 + 36x + 1$, is

Note: For this question, discrepancy is found in question/answer. So,this question is ignored for all candidates.

Options :

1. One-one but not onto
2. One-one and onto
3. Onto but not One-one
4. Neither One-one nor onto

Question Number : 113 Question Id : 50389010257 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

$f(x) = 2x^3 - 15x^2 + 36x + 1$ द्वारा परिभाषित फलन f : [0, 3] → [1, 2, 9], है –

Note: For this question, discrepancy is found in question/answer. So,this question is ignored for all candidates.

Options :

1. एकैकी परन्तु आच्छादक नहीं
2. एकैकी और आच्छादक

3. आच्छादक परन्तु एकैकी नहीं
4. ना ही एकैकी और ना ही आच्छादक

Question Number : 114 Question Id : 50389010258 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Let A be a set of n elements and B be a set of m elements, then the total number of mapping from A to B is

Options :

1. ✖ n^m

2. ✔ m^n

3. ✖ ${}^nC_m$

4. ✖ mn

Question Number : 114 Question Id : 50389010258 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

यदि A, n अवयवों का समुच्चय हो और B, m अवयवों का समुच्चय हो, तो A से B तक मानचित्रों की कूल संख्या होगी -

Options :

1. ✖ n^m

2. ✔ m^n

3. ✖ ${}^nC_m$

4. ✖ mn

Question Number : 115 Question Id : 50389010259 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Let A be a set of 4 elements and B be a set of 3 elements, then the total number of surjective mappings from A to B is

Options :

1. ✔ 36
2. ✖ 12
3. ✖ 72
4. ✖ 144

Question Number : 115 Question Id : 50389010259 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

अनुमान करें की A, 4 अवयवों का एक समुच्चय है और B, 3 अवयवों का एक समुच्चय है, तो A से B तक आच्छादी मानचित्रों की कूल संख्या होगी –

Options :

1. ✔ 36
2. ✖ 12
3. ✖ 72
4. ✖ 144

Question Number : 116 Question Id : 50389010260 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

If $f : \mathbf{R} \to \mathbf{R}$ be defined by $f(x) = x^2$, $x \in \mathbf{R}$ then f is –

Options :

1. ✖ Bijective
2. ✖ Injective
3. ✖ Surjective
4. ✔ Not Bijective

Question Number : 116 Question Id : 50389010260 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

यदि $f(x) = x^2$, $x \in \mathbf{R}$ द्वारा परिभाषित $f : \mathbf{R} \to \mathbf{R}$ हो, तो f –

Options :

1. ✖ एकैकी आच्छादी है
2. ✖ एकैकी
3. ✖ आच्छादी
4. ✔ एकैकी आच्छादी नहीं है

Question Number : 117 Question Id : 50389010261 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Which of the following is not true?

Options :

1. ✖ $A \cap B = B \cap A$
2. ✖ $A \cup B = B \cup A$
3. ✔ $A \cup (B \cup C) = (A \cup B) \cap C$
4. ✖ $A \cap A' = \emptyset$

Question Number : 117 Question Id : 50389010261 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

निम्नलिखित मे से कौनसा सत्य नहीं है?

Options :

1. ✖ $A \cap B = B \cap A$

2. ✖ $A \cup B = B \cup A$

3. ✔ $A \cup (B \cup C) = (A \cup B) \cap C$

4. ✖ $A \cap A' = \emptyset$

Question Number : 118 Question Id : 50389010262 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

If $f : A \rightarrow B$ be a mapping and $P \subset A$, then which of the following is true?

Note: For this question, discrepancy is found in question/answer. So,this question is ignored for all candidates.

Options :

1. $ff^{-1}(P) \subset P$

2. $ff^{-1}(P) = P$ if f is injective

3. $f^{-1}(P^c) \subset [f^{-1}(P)]^c$

4. $[f(P)]^c \subset f(P^c)$

Question Number : 118 Question Id : 50389010262 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

यदि $f : A \rightarrow B$ एक मानचित्रण हो और $P \subset A$ हो, तो निम्नलिखित में से कौनसा सत्य है?

Note: For this question, discrepancy is found in question/answer. So,this question is ignored for all candidates.

Options :

1. $ff^{-1}(P) \subset P$

2. $ff^{-1}(P) = P$ यदि f एकैक है

3. $f^{-1}(P^c) \subset [f^{-1}(P)]^c$

4. $[f(P)]^c \subset f(P^c)$

Question Number : 119 Question Id : 50389010263 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Which of the following is true?

Options :

1. ✖ $A \times (B \cap C) = (A \times B) \cup (A \times C)$

2. ✖ $A \times (B \cup C) = (A \times B) \cap (A \times C)$

3. ✖ $A \times (B - C) = (A \times C) - (A \times B)$

4. ✔ $(A - B) \times C = (A \times C) - (B \times C)$

Question Number : 119 Question Id : 50389010263 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

निम्नलिखित में से कौनसा सत्य है?

Options :

1. ✖ $A \times (B \cap C) = (A \times B) \cup (A \times C)$

2. ✖ $A \times (B \cup C) = (A \times B) \cap (A \times C)$

3. ✖ $A \times (B - C) = (A \times C) - (A \times B)$

4. ✔ $(A - B) \times C = (A \times C) - (B \times C)$

Question Number : 120 Question Id : 50389010264 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

The order of the permutation $\begin{pmatrix} 1 & 2 & 3 & 4 & 5 & 6 \\ 4 & 6 & 3 & 5 & 1 & 2 \end{pmatrix}$, is-

Options :

1. ✖ 8
2. ✖ 4
3. ✔ 6
4. ✖ 12

Question Number : 120 Question Id : 50389010264 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option

Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0.25

क्रमचय $\begin{pmatrix} 1 & 2 & 3 & 4 & 5 & 6 \\ 4 & 6 & 3 & 5 & 1 & 2 \end{pmatrix}$, का क्रम है -

Options :

1. ✖ 8
2. ✖ 4
3. ✔ 6
4. ✖ 12

Discipline2

Group Number :	7
Group Id :	503890267
Group Maximum Duration :	0
Group Minimum Duration :	0
Show Attended Group? :	No
Edit Attended Group? :	No
Break time :	0
Group Marks :	20
Is this Group for Examiner? :	No

Discipline2

Section Id :	503890403
Section Number :	1
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	20
Number of Questions to be attempted :	20
Section Marks :	20

Enable Mark as Answered Mark for Review and Clear Response :	Yes
Sub-Section Number :	1
Sub-Section Id :	503890476
Question Shuffling Allowed :	Yes

Question Number : 121 Question Id : 50389010265 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

If the ratio of roots of an equation x^2 - px + q = 0 is 1 : 2, then the relation between p and q is

Options :

1. ✖ p = q
2. ✔ $2p^2 = 9q$
3. ✖ $9p = 2q^2$
4. ✖ $p^2 = q^3$

Question Number : 121 Question Id : 50389010265 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

यदि समीकरण x^2 - px + q = 0 के मूलों का अनुपात 1 : 2 है, तो p और q का संबंध है –

Options :

1. ✖ p = q
2. ✔ $2p^2 = 9q$
3. ✖ $9p = 2q^2$
4. ✖ $p^2 = q^3$

Question Number : 122 Question Id : 50389010266 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

If 4 be the root of the equation x^2+ ax – 12 = 0, then another root is

Options :

1. ✖ -2

2. ✖ 3

3. ✔ -3

4. ✖ a - 4

Question Number : 122 Question Id : 50389010266 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

यदि समीकरण $x^2 + ax - 12 = 0$ का मूल 4 हो, तो दूसरा मूल होगा –

Options :

1. ✖ -2

2. ✖ 3

3. ✔ -3

4. ✖ a - 4

Question Number : 123 Question Id : 50389010267 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

If $b = c = 0$ in the equation $ax^2 + bx + c = 0$, then the value of roots are

Options :

1. ✖ 0, 1

2. ✖ 1, 1

3. ✔ 0, 0

4. ✖ 1, 0

Question Number : 123 Question Id : 50389010267 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

यदि समीकरण $ax^2 + bx + c = 0$ में $b = c = 0$ हो, तो इसके मूल होंगे –

Options :

1. ✖ 0, 1

2. ✖ 1, 1

3. ✔ 0, 0
4. ✖ 1, 0

Question Number : 124 Question Id : 50389010268 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

What is the nature of the roots of this equation $x^2 - 2\sqrt{7}x - 2 = 0$?

Options :

1. ✔ Real, Unequal, Irrational
2. ✖ Complex, Unequal
3. ✖ Real , Unequal , Rational
4. ✖ Real, Equal, Rational

Question Number : 124 Question Id : 50389010268 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

समीकरण $x^2 - 2\sqrt{7}x - 2 = 0$ के मूलों की प्रकृति क्या है?

Options :

1. ✔ वास्तविक, असमान, अपरिमेय
2. ✖ सम्मिश्र, असमान
3. ✖ वास्तविक, असमान, परिमेय
4. ✖ वास्तविक, सामान, परिमेय

Question Number : 125 Question Id : 50389010269 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

If a, b and c are real and rational and satisfies the condition a + b+ c = 0, of the equation $ax^2 + bx + c = 0$, then the roots are

Options :

1. ✔ Rational, Real

2. ✖ Irrational, Real
3. ✖ Complex
4. ✖ Not Existing

Question Number : 125 Question Id : 50389010269 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

यदि समीकरण $ax^2 + bx + c = 0$, के a, b और c वास्तविक व परिमेय हो एवं स्थिति $a + b + c = 0$ को पूरा करता हो, तो इसके मूल –

Options :

1. ✔ परिमेय, वास्तविक होंगे
2. ✖ अपरिमेय, वास्तविक होंगे
3. ✖ सम्मिश्र होंगे
4. ✖ होंगे ही नहीं

Question Number : 126 Question Id : 50389010270 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

The roots of the equation $ax^2 + bx + c = 0$ being equal and having opposite signs can be possible only when

Options :

1. ✖ $a = 0$
2. ✔ $b = 0$
3. ✖ $c = 0$
4. ✖ $a = b = c = 0$

Question Number : 126 Question Id : 50389010270 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

समीकरण $ax^2 + bx + c = 0$ के मूल समान एवं विपरीत चिह्न के तभी संभव हो सकते है जब -

Options :

1. ✖ $a = 0$
2. ✔ $b = 0$

3. ✖ c = 0

4. ✖ a = b = c = 0

Question Number : 127 Question Id : 50389010271 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

What is the addition of two roots of the equation $3x^2 - 5x + 7 = 0$?

Options :

1. ✖ 5

2. ✖ $-\frac{5}{3}$

3. ✔ $\frac{5}{3}$

4. ✖ -5

Question Number : 127 Question Id : 50389010271 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

समीकरण $3x^2 - 5x + 7 = 0$ के मूलों का जोड़ क्या होगा?

Options :

1. ✖ 5

2. ✖ $-\frac{5}{3}$

3. ✔ $\frac{5}{3}$

4. ✖ -5

Question Number : 128 Question Id : 50389010272 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Which of the following equations is having the roots 2 and (-3)?

Options :

1. ✔ $x^2 + x - 6 = 0$
2. ✖ $x^2 - x - 6 = 0$
3. ✖ $x^2 - x + 6 = 0$
4. ✖ $x^2 - 5x - 6 = 0$

Question Number : 128 Question Id : 50389010272 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

निम्नलिखित मे से कौनसे समीकरण के मूल 2 और -3 है?

Options :

1. ✔ $x^2 + x - 6 = 0$
2. ✖ $x^2 - x - 6 = 0$
3. ✖ $x^2 - x + 6 = 0$
4. ✖ $x^2 - 5x - 6 = 0$

Question Number : 129 Question Id : 50389010273 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

If the subtraction of two roots is 2, of the equation $2x^2 - 12x + m + 2 = 0$, then the value of m is

Options :

1. ✖ $m = 2$
2. ✖ $m = 7$

3. ✔ m = 14

4. ✖ m = -2

Question Number : 129 Question Id : 50389010273 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

यदि समीकरण $2x^2 - 12x + m + 2 = 0$ के दोनों मूलों का घटाव 2 है, तो m का मान है -

Options :

1. ✖ m = 2

2. ✖ m = 7

3. ✔ m = 14

4. ✖ m = -2

Question Number : 130 Question Id : 50389010274 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

If one root of any equation is (2 - 3i) (where $i = \sqrt{-1}$), then what is the equation?

Options :

1. ✖ $x^2 - 4x + 12 = 0$

2. ✔ $x^2 - 4x + 13 = 0$

3. ✖ $x^2 + 4x - 13 = 0$

4. ✖ $x^2 + 4x + 12 = 0$

Question Number : 130 Question Id : 50389010274 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

यदि किसी समीकरण का एक मूल (2 - 3i) (जहां $i = \sqrt{-1}$ है) है, तो समीकरण क्या होगा?

Options :

1. ✖ $x^2 - 4x + 12 = 0$
2. ✔ $x^2 - 4x + 13 = 0$
3. ✖ $x^2 + 4x - 13 = 0$
4. ✖ $x^2 + 4x + 12 = 0$

Question Number : 131 Question Id : 50389010275 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

The improper integral $\int_0^1 \frac{3}{2x(2x-1)} dx$ has

Options :

1. ✖ Point of infinite discontinuity of $1, \frac{1}{2}$

2. ✔ Point of infinite discontinuity at $0, \frac{1}{2}$

3. ✖ Point of infinite discontinuity at 0, 1

4. ✖ Point of infinite discontinuity at 0

Question Number : 131 Question Id : 50389010275 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

विषम समाकलन $\int_0^1 \frac{3}{2x(2x-1)} dx$ का -

Options :

1. ✖ $1, \frac{1}{2}$ पर अनंत असांतत्य का बिंदु है

2. ✔ $0, \frac{1}{2}$ पर अनंत असांतत्य का बिंदु है

3. ✖ 0, 1 पर अनंत असांतत्य का बिंदु है

4. ✖ 0 पर अनंत असांतत्य का बिंदु है

Question Number : 132 Question Id : 50389010276 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

The integral $\int_0^\infty \frac{|\sin x|}{x} dx$

Options :

1. ✔ is convergent but not absolutely
2. ✖ is not convergent
3. ✖ is absolutely convergent
4. ✖ is absolutely divergent

Question Number : 132 Question Id : 50389010276 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

समाकलन $\int_0^\infty \frac{|\sin x|}{x} dx -$

Options :

1. ✔ अभिसारी है किन्तु पूर्ण रूप से नहीं
2. ✖ अभिसारी नहीं है
3. ✖ पूर्ण रूप से अभिसारी है
4. ✖ पूर्ण रूप से अपसारी है

Question Number : 133 Question Id : 50389010277 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

The integral $\int_0^{\infty} \sin x \, dx$

Options :

1. ✖ Exists and is equal to 1
2. ✖ Exists and is equal to 0
3. ✖ Exists and is equal to -1
4. ✔ Does not exist

Question Number : 133 Question Id : 50389010277 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

समाकलन $\int_0^{\infty} \sin x \, dx$ –

Options :

1. ✖ अस्तित्व में है और उसका मान 1 है
2. ✖ अस्तित्व में है और उसका मान 0 है
3. ✖ अस्तित्व में है और उसका मान -1 है
4. ✔ अस्तित्व में नहीं है

Question Number : 134 Question Id : 50389010278 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

If f(x) satisfies the requirements of Rolle's theorem in [1, 2] and f'(x) is continuous in [1, 2], then the value of $\int_1^2 f'(x)dx$ is:

Options :

1. ✔ 0

2. ✖ 1
3. ✖ -1
4. ✖ 2

Question Number : 134 Question Id : 50389010278 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

यदि f(x) अंतराल [1, 2] में रोले के प्रमेय की आवश्यकताओं को पूरा करता है और f'(x) अंतराल [1, 2] में संतत है, तो $\int_1^2 f'(x)dx$ का मान है –

Options :

1. ✔ 0
2. ✖ 1
3. ✖ -1
4. ✖ 2

Question Number : 135 Question Id : 50389010279 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

The integral $\int_1^\infty \frac{\sin x}{x^p} dx$ converges –

Options :

1. ✖ Absolutely for P > -1
2. ✖ Absolutely for P > 0
3. ✔ Absolutely for P > 1
4. ✖ Absolutely for P = 1

Question Number : 135 Question Id : 50389010279 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

समाकलन $\int_1^{\infty} \frac{\sin x}{x^p} dx$ अभिसारी होता है -

Options :

1. ✖ P > -1 पर पूर्ण रूप से
2. ✖ P > 0 पर पूर्ण रूप से
3. ✔ P > 1 पर पूर्ण रूप से
4. ✖ P = 1 पर पूर्ण रूप से

Question Number : 136 Question Id : 50389010280 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

$\int_0^{\infty} e^{-a^2t^2} dt$ is equal to:

Options :

1. ✖ $\frac{\sqrt{\pi}}{3a}$
2. ✖ $\frac{\sqrt{\pi}}{2}$
3. ✖ $a\sqrt{\pi}$
4. ✔ $\frac{\sqrt{\pi}}{2a}$

Question Number : 136 Question Id : 50389010280 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

$\int_0^\infty e^{-a^2t^2}dt$ का मान है –

Options :

1. ✖ $\frac{\sqrt{\pi}}{3a}$

2. ✖ $\frac{\sqrt{\pi}}{2}$

3. ✖ $a\sqrt{\pi}$

4. ✔ $\frac{\sqrt{\pi}}{2a}$

Question Number : 137 Question Id : 50389010281 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

If f is Riemann integrable with respect to α on [a, b], then:

Options :

1. ✔ f is bounded and α is increasing function

2. ✖ f and α are both bounded

3. ✖ f is increasing and α is bounded function

4. ✖ f and α are increasing

Question Number : 137 Question Id : 50389010281 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

यदि f, अंतराल [a, b] पर α के संबंध में रीमैन समाकलानीय है, तो:

Options :

1. ✔ f परिबद्ध है और α एक वर्धमान फलन है

2. ✖ f और α दोनों परिबद्ध है
3. ✖ f वर्धमान है और α एक परिबद्ध फलन है
4. ✖ f और α वर्धमान है

Question Number : 138 Question Id : 50389010282 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Which one of the following is not correct on an interval [a, b]?

Options :

1. ✖ Every integrable function is bounded
2. ✔ Every discontinuous function is integrable
3. ✖ Every continuous function is integrable
4. ✖ Every continuous function has a primitive

Question Number : 138 Question Id : 50389010282 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

अंतराल [a, b] में निम्नलिखित में से कौनसा सही नहीं है?

Options :

1. ✖ प्रत्येक समाकलानीय फलन परिबद्ध है
2. ✔ प्रत्येक असंतत फलन समाकलनीय है
3. ✖ प्रत्येक संतत फलन समाकलनीय है
4. ✖ प्रत्येक संतत फलन का एक पूर्वग होता है

Question Number : 139 Question Id : 50389010283 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Let f: [a, b] → **R** and P and Q are partitions of [a, b] such that $Q \subset P$. Then –

Options :

1. ✖ $U(P, f) \geq U(Q, f)$

2. ✖ $U(P, f) \leq L(Q, f)$

3. ✖ $L(P, f) \leq L(Q, f)$

4. ✔ $L(P, f) \leq U(Q, f)$

Question Number : 139 Question Id : 50389010283 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

मान लीजिये की f: [a, b] → **R** है एवं P और Q अंतराल [a, b] के विभाजन (पार्टीशन) है जैसे की $Q \subset P$, तो –

Options :

1. ✖ $U(P, f) \geq U(Q, f)$

2. ✖ $U(P, f) \leq L(Q, f)$

3. ✖ $L(P, f) \leq L(Q, f)$

4. ✔ $L(P, f) \leq U(Q, f)$

Question Number : 140 Question Id : 50389010284 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

The value of definite integral $\int_{-a}^{a} |x| \, dx$ is equal to:

Options :

1. ✖ 2a
2. ✔ a^2
3. ✖ O
4. ✖ a

Question Number : 140 Question Id : 50389010284 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

निश्चित समाकलन $\int_{-a}^{a}|x|dx$ का मान है:

Options :

1. ✖ 2a
2. ✔ a^2
3. ✖ O
4. ✖ a

Discipline3

Group Number :	8
Group Id :	503890268
Group Maximum Duration :	0
Group Minimum Duration :	0
Show Attended Group? :	No
Edit Attended Group? :	No
Break time :	0
Group Marks :	20
Is this Group for Examiner? :	No

Discipline3

Section Id :	503890404
Section Number :	1
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	20
Number of Questions to be attempted :	20
Section Marks :	20
Enable Mark as Answered Mark for Review and Clear Response :	Yes
Sub-Section Number :	1
Sub-Section Id :	503890477
Question Shuffling Allowed :	Yes

Question Number : 141 Question Id : 50389010285 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

If $x = 3 + 3^{2/3} + 3^{1/3}$, then find the value of $x^3 - 9x^2 + 18x - 12$

Options :

1. ✖ $\frac{1}{2}$

2. ✖ 1

3. ✔ 0

4. ✖ -1

Question Number : 141 Question Id : 50389010285 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

यदि $x = 3 + 3^{2/3} + 3^{1/3}$ हो, तो $x^3 - 9x^2 + 18x - 12$ का मान होगा –

Options :

1. ✖ $\frac{1}{2}$

2. ✖ 1

3. ✔ 0

4. ✖ -1

Question Number : 142 Question Id : 50389010286 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Arrange the values in ascending order 2^{63}, 3^{45}, 5^{27}, 6^{18}

Options :

1. ✖ 2^{63}, 5^{27}, 6^{18}, 3^{45}

2. ✖ 5^{27},6^{18}, 2^{63}, 3^{45}

3. ✖ 3^{45}, 5^{27},2^{63}, 6^{18}

4. ✔ 6^{18}, 5^{27},2^{63}, 3^{45}

Question Number : 142 Question Id : 50389010286 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

$2^{63}, 3^{45}, 5^{27}, 6^{18}$, के मान को आरोही क्रम में व्यवस्थित कीजिये –

Options :

1. ✖ $2^{63}, 5^{27}, 6^{18}, 3^{45}$

2. ✖ $5^{27}, 6^{18}, 2^{63}, 3^{45}$

3. ✖ $3^{45}, 5^{27}, 2^{63}, 6^{18}$

4. ✔ $6^{18}, 5^{27}, 2^{63}, 3^{45}$

Question Number : 143 Question Id : 50389010287 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

If $3^x + 3^y = 4$, then the value of $3^{-x} + 3^{-y}$ is -

Options :

1. ✖ $\frac{1}{2}$

2. ✔ $\frac{4}{3}$

3. ✖ 1

4. ✖ $\frac{3}{4}$

Question Number : 143 Question Id : 50389010287 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

यदि $3^x + 3^y = 4$ हो, तो $3^{-x} + 3^{-y}$ का मान होगा –

Options :

1. ✖ $\frac{1}{2}$

2. ✔ $\frac{4}{3}$

3. ✖ 1

4. ✖ $\frac{3}{4}$

Question Number : 144 Question Id : 50389010288 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

If $x = \sqrt{\frac{\sqrt{5}+1}{\sqrt{5}-1}}$, then the value of $x^2 - x - 1$ is -

Options :

1. ✖ $-\frac{1}{2}$

2. ✖ $\frac{1}{2}$

3. ✔ 0

4. ✖ 1

Question Number : 144 Question Id : 50389010288 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

यदि $x = \sqrt{\frac{\sqrt{5}+1}{\sqrt{5}-1}}$ हो, तो $x^2 - x - 1$ का मान होगा -

Options :

1. ✖ $-\frac{1}{2}$

2. ✖ $\frac{1}{2}$

3. ✔ 0

4. ✖ 1

Question Number : 145 Question Id : 50389010289 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Find the argument of this complex number $(1 + i)(\sqrt{3} + i)$:

Options :

1. ✔ $\frac{5\pi}{12}$

2. ✖ $\frac{\pi}{12}$

3. ✖ π

4. ✖ $\frac{\pi}{4}$

Question Number : 145 Question Id : 50389010289 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

सम्मिश्र संख्या $(1+i)(\sqrt{3}+i)$ का कोणांक है –

Options :

1. ✔ $\frac{5\pi}{12}$

2. ✖ $\frac{\pi}{12}$

3. ✖ π

4. ✖ $\frac{\pi}{4}$

Question Number : 146 Question Id : 50389010290 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

If ω be a cube root of 1, then what is the value of $(1-\omega)(1-\omega^2)(1-\omega^4)(1-\omega^5)$?

Options :

1. ✔ 9
2. ✖ 8
3. ✖ 7
4. ✖ 1

Question Number : 146 Question Id : 50389010290 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

यदि ω, 1 का घनमूल है, तो $(1-\omega)(1-\omega^2)(1-\omega^4)(1-\omega^5)$ का मान क्या है?

Options :

1. ✔ 9
2. ✖ 8
3. ✖ 7
4. ✖ 1

Question Number : 147 Question Id : 50389010291 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Complete the series:
34,___, ___, ___, ___,48

Options :

1. ✖ 36.4, 39.8, 42.6, 46.2
2. ✔ 36.8, 39.6, 42.4, 45.2
3. ✖ 36.9, 39.7, 42.6, 46.8
4. ✖ 37.0, 39.9, 43.1, 46.2

Question Number : 147 Question Id : 50389010291 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

दी गयी श्रेणी को पूरा करें –

34,___, ___, ___, ___,48

Options :

1. ✖ 36.4, 39.8, 42.6, 46.2
2. ✔ 36.8, 39.6, 42.4, 45.2
3. ✖ 36.9, 39.7, 42.6, 46.8
4. ✖ 37.0, 39.9, 43.1, 46.2

Question Number : 148 Question Id : 50389010292 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

If 5, x, 405 is in G.P., then what is the value of x?

Options :

1. ✔ +45
2. ✖ -45
3. ✖ ±15
4. ✖ ±45

Question Number : 148 Question Id : 50389010292 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

यदि 5, x, 405 गुणोत्तर श्रेणी में हो तो x का मान क्या होगा?

Options :

1. ✔ +45
2. ✖ -45
3. ✖ ±15
4. ✖ ±45

Question Number : 149 Question Id : 50389010293 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

If the multiplication of two roots is -3, then what is the value of 'b' from this equation $2x^2 - 7x + b = 0$

Options :

1. ✖ $-\frac{3}{2}$

2. ✖ $+\frac{3}{2}$

3. ✔ -6

4. ✖ +6

Question Number : 149 Question Id : 50389010293 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

यदि दो मूलों का गुणन -3 है, तो समीकरण $2x^2 - 7x + b = 0$, में 'b' का मान क्या होगा?

Options :

1. ✖ $-\frac{3}{2}$

2. ✖ $+\frac{3}{2}$

3. ✔ -6

4. ✖ +6

Question Number : 150 Question Id : 50389010294 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

If ${}^{2n+1}P_{n-1} : {}^{2n-1}P_n = 3 : 5$, then find the value of n.

Options :

1. ✖ -4
2. ✔ 4
3. ✖ 5
4. ✖ 3

Question Number : 150 Question Id : 50389010294 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

यदि ${}^{2n+1}P_{n-1} : {}^{2n-1}P_n = 3 : 5$, है, तो n का मान होगा –

Options :

1. ✖ -4
2. ✔ 4
3. ✖ 5
4. ✖ 3

Question Number : 151 Question Id : 50389010295 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

If a, b, c are positive real numbers then the least value of $\frac{a+b}{c}+\frac{b+c}{a}+\frac{c+a}{b}$ is:

Options :

1. ✖ 5
2. ✔ 6
3. ✖ 2
4. ✖ 1

Question Number : 151 Question Id : 50389010295 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

यदि a, b, c धनात्मक वास्तविक संख्याएं हैं, तो $\frac{a+b}{c}+\frac{b+c}{a}+\frac{c+a}{b}$ का न्यूनतम मान होगा -

Options :

1. ✖ 5
2. ✔ 6
3. ✖ 2
4. ✖ 1

Question Number : 152 Question Id : 50389010296 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

If the arithmetic-mean of the two numbers a and b $(a, b > 0)$ is five times their geometric mean, then $\frac{a+b}{a-b}$ is equal to:

Options :

1. ✔ $\frac{5\sqrt{6}}{12}$

2. ✖ $\frac{7\sqrt{3}}{12}$

3. ✖ $\frac{3\sqrt{2}}{4}$

4. ✖ $\frac{\sqrt{6}}{2}$

Question Number : 152 Question Id : 50389010296 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

यदि दो संख्याएं a और b (a, b > 0) का समान्तर माध्य, उसके गुणोत्तर माध्य के पांच गुना होता है, तो $\frac{a+b}{a-b}$ का मान होगा –

Options :

1. ✔ $\frac{5\sqrt{6}}{12}$

2. ✖ $\frac{7\sqrt{3}}{12}$

3. ✖ $\frac{3\sqrt{2}}{4}$

4. ✖ $\frac{\sqrt{6}}{2}$

Question Number : 153 Question Id : 50389010297 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

If a, b are positive real numbers and a + b = 4, then the minimum value of $\left(a+\frac{1}{a}\right)^2+\left(b+\frac{1}{b}\right)^2$ is.....

Options :

1. ✖ $\frac{5}{3}$

2. ✖ $\frac{25}{3}$

3. ✔ $\frac{25}{2}$

4. ✖ $\frac{15}{5}$

Question Number : 153 Question Id : 50389010297 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

यदि a, b धनात्मक वास्तविक संख्याएं है और a + b = 4 है, तो $\left(a+\frac{1}{a}\right)^2+\left(b+\frac{1}{b}\right)^2$ का न्यूनतम मान है –

Options :

1. ✖ $\frac{5}{3}$

2. ✖ $\frac{25}{3}$

3. ✔ $\frac{25}{2}$

4. ✖ $\frac{15}{5}$

Question Number : 154 Question Id : 50389010298 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

If m is the AM (Arithmetic-Mean) of two distinct real numbers l and n (l, n > 1) and G_1, G_2 and G_3 are their geometric means between l and n, then $G_1^4 + 2G_2^4 + G_3^4$ equals:

Options :

1. ✔ $4lm^2n$

2. ✖ $4l^2mn$

3. ✖ $4l^2m^2n^2$

4. ✖ $4lmn^2$

Question Number : 154 Question Id : 50389010298 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

यदि m, दो भिन्न वास्तविक संख्याएँ l और n (l, n > 1) का समान्तर माध्य हो और G_1, G_2 and G_3, l एवं n के बीच उनका गुणोत्तर माध्य हो, तो $G_1^4 + 2G_2^4 + G_3^4$ का मान होगा –

Options :

1. ✔ $4lm^2n$

2. ✖ $4l^2mn$

3. ✖ $4l^2m^2n^2$

4. ✖ $4lmn^2$

Question Number : 155 Question Id : 50389010299 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

If $p^2 + q^2 = 1$ and $m^2 + n^2 = 1$ then-

Options :

1. ✖ $|pq + mn| > 1$

2. ✖ $|pq - mn| < 2$

3. ✖ $|pm + qn| \geq 1$

4. ✔ $|pm + qn| \leq 1$

Question Number : 155 Question Id : 50389010299 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

यदि $p^2 + q^2 = 1$ और $m^2 + n^2 = 1$, तो –

Options :

1. ✖ $|pq + mn| > 1$

2. ✖ $|pq - mn| < 2$

3. ✖ $|pm + qn| \geq 1$

4. ✔ $|pm + qn| \leq 1$

Question Number : 156 Question Id : 50389010300 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

If $|a| < 1, |b| < 1$, then which of the following is correct?

Note: For this question, discrepancy is found in question/answer. So,this question is ignored for all candidates.

Options :

1. $|a - b| > |1 + ab|$

2. $|a - b| > |1 + ab|$

3. $|a - b| = |1 + ab|$

4. $|a + b| = |1 + ab|$

Question Number : 156 Question Id : 50389010300 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

यदि $|a| < 1, |b| < 1$ है, तो निम्नलिखित में से कौनसा सही है?

Note: For this question, discrepancy is found in question/answer. So,this question is ignored for all candidates.

Options :

1. $|a - b| > |1 + ab|$

2. $|a - b| > |1 + ab|$

3. $|a - b| = |1 + ab|$

4. $|a + b| = |1 + ab|$

Question Number : 157 Question Id : 50389010301 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

If a, b, c are positive real numbers and $2a + 3b + 6c = 3$, then the minimum value of $a^2 + b^2 + c^2$ is:

Options :

1. ✖ $\frac{7}{49}$

2. ✔ $\frac{9}{49}$

3. ✖ $\frac{8}{49}$

4. ✖ $\frac{6}{49}$

Question Number : 157 Question Id : 50389010301 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

यदि a, b, c धनात्मक वास्तविक संख्याएँ हैं और $2a + 3b + 6c = 3$ हैं, तो $a^2 + b^2 + c^2$ का न्यूनतम मान है –

Options :

1. ✖ $\frac{7}{49}$

2. ✔ $\frac{9}{49}$

3. ✖ $\frac{8}{49}$

4. ✖ $\frac{6}{49}$

Question Number : 158 Question Id : 50389010302 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

For any two positive numbers a and x, least value of $ax + \frac{a}{x}$ is:

Options :

1. ✖ a

2. ✔ 2a

3. ✖ $\sqrt{2}\,a^2$

4. ✖ a^2

Question Number : 158 Question Id : 50389010302 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

किसी दो धनात्मक संख्याओं a और x, के लिए $ax + \frac{a}{x}$ का न्यूनतम मान है –

Options :

1. ✖ a

2. ✔ 2a

3. ✖ $\sqrt{2}\,a^2$

4. ✖ a^2

Question Number : 159 Question Id : 50389010303 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option

Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

If a, b, c are positive real numbers and all are not equal, and $a+b+c=1$ then the least value of $\left(\frac{1}{a}-1\right)^2\left(\frac{1}{b}-1\right)^2\left(\frac{1}{c}-1\right)^2$ is:

Options :

1. ✔ 64
2. ✖ 16
3. ✖ 80
4. ✖ 32

Question Number : 159 Question Id : 50389010303 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

यदि a, b, c धनात्मक वास्तविक संख्याएँ हैं और सभी समान नहीं हैं, और $a+b+c=1$ है, तो $\left(\frac{1}{a}-1\right)^2\left(\frac{1}{b}-1\right)^2\left(\frac{1}{c}-1\right)^2$ का न्यूनतम मान है:

Options :

1. ✔ 64
2. ✖ 16
3. ✖ 80
4. ✖ 32

Question Number : 160 Question Id : 50389010304 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

If the product of n positive real numbers $a_1, a_2, a_3 \ldots\ldots a_n$ is unity, then their sum is:

Options :

1. ✖ Divisible by n

2. ✖ A positive integer
3. ✔ Never less than n
4. ✖ Equal to n^2

Question Number : 160 Question Id : 50389010304 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0.25

If the product of n positive real numbers $a_1, a_2, a_3 \ldots\ldots a_n$ is unity, then their sum is:

Options :
1. ✖ n से विभाज्य है
2. ✖ एक सकारात्मक पूर्णांक है
3. ✔ कभी भी n से कम नहीं है
4. ✖ n^2 के समान

Discipline4

Group Number :	9
Group Id :	503890269
Group Maximum Duration :	0
Group Minimum Duration :	0
Show Attended Group? :	No
Edit Attended Group? :	No
Break time :	0
Group Marks :	20
Is this Group for Examiner? :	No

Discipline4

Section Id :	503890405

Section Number :	1
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	20
Number of Questions to be attempted :	20
Section Marks :	20
Enable Mark as Answered Mark for Review and Clear Response :	Yes
Sub-Section Number :	1
Sub-Section Id :	503890478
Question Shuffling Allowed :	Yes

Question Number : 161 Question Id : 50389010305 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

The hyperbolas $x^2 - y^2 = a^2$ and $xy = c^2$

Options :

1. ✔ Intersect orthogonally
2. ✖ Intersect but not orthogonally
3. ✖ Do not intersect
4. ✖ Meet at imaginary points

Question Number : 161 Question Id : 50389010305 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

अतिपरवलय $x^2 - y^2 = a^2$ और $xy = c^2$

Options :

1. ✔ लंबवत रूप से काटते हैं
2. ✖ काटते है पर लंबवत रूप से नहीं
3. ✖ काटते नहीं है
4. ✖ काल्पनिक बिंदुओं पर मिलते हैं

Question Number : 162 Question Id : 50389010306 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

The locus of the middle points of the parallel chords of a parabola is -

Options :

1. ✖ A straight line passing through its vertex
2. ✔ A straight parallel to the axis of the parabola
3. ✖ A directrix
4. ✖ A straight perpendicular to the axis of the parabola

Question Number : 162 Question Id : 50389010306 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

एक परवलय के समांतर जीवाएं के केन्द्रीय-बिन्दुओं का बिंदु-पथ है –

Options :

1. ✖ उसके उपगम्यता से गुजरने वाली एक सरल रेखा
2. ✔ परवलय के अक्ष से गुजरने वाली सरल समान्तर
3. ✖ एक नियता (directrix)
4. ✖ परवलय के अक्ष से गुजरने वाली एक सरल लंबवत

Question Number : 163 Question Id : 50389010307 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

If the straight lines $y = mx$ and $y = m'x$ be a pair of conjugate diameters of an ellipse $\frac{x^2}{a^2} + \frac{y^2}{b^2} = 1$, then-

Options :

1. ✖ $mm' = \frac{a^2}{b^2}$

2. ✖ $mm' = \frac{b^2}{a^2}$

3. ✖ $mm' = -\frac{a^2}{b^2}$

4. ✔ $mm' = -\frac{b^2}{a^2}$

Question Number : 163 Question Id : 50389010307 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

यदि सरल रेखाओं $y = mx$ और $y = m'x$, दीर्घवृत्त $\frac{x^2}{a^2} + \frac{y^2}{b^2} = 1$, के संयुग्म व्यास के जोड़े है, तो –

Options :

1. ✖ $mm' = \frac{a^2}{b^2}$

2. ✖ $mm' = \frac{b^2}{a^2}$

3. ✖ $mm' = -\frac{a^2}{b^2}$

4. ✔ $mm' = -\frac{b^2}{a^2}$

Question Number : 164 Question Id : 50389010308 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

The equation $3x^2 + 2xy + 3y^2 - 16x + 20 = 0$ represents –

Options :

1. ✖ A parabola
2. ✔ An ellipse
3. ✖ A circle
4. ✖ A hyperbola

Question Number : 164 Question Id : 50389010308 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

समीकरण $3x^2 + 2xy + 3y^2 - 16x + 20 = 0$ दर्शाता है -

Options :

1. ✖ एक परवलय
2. ✔ एक दीर्घवृत्त
3. ✖ एक वृत्त
4. ✖ एक अतिपरवलय

Question Number : 165 Question Id : 50389010309 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

The eccentricity and semi–latus rectum of the curve $\frac{1}{r} = 8 + 5\cos\theta$ are respectively –

Options :

1. ✖ $\frac{1}{8}, 8$

2. ✔ $\frac{5}{8}, \frac{1}{8}$

3. ✖ $\frac{1}{8}, \frac{5}{8}$

4. ✖ $\frac{5}{8}, 8$

Question Number : 165 Question Id : 50389010309 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

वक्र $\frac{1}{r} = 8 + 5\cos\theta$ के उत्केन्द्रता एवं अर्ध-नाभिलंब जीवा क्रमशः है –

Options :

1. ✖ $\frac{1}{8}, 8$

2. ✔ $\frac{5}{8}, \frac{1}{8}$

3. ✖ $\frac{1}{8}, \frac{5}{8}$

4. ✖ $\frac{5}{8}, 8$

Question Number : 166 Question Id : 50389010310 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

The diameter of the parabola $x^2 = 4ay$ is parallel to-

Options :

1. ✔ y'- axis
2. ✖ x'- axis
3. ✖ A line equally inclined to co-ordinate axis
4. ✖ The straight line $y + 3x = 0$

Question Number : 166 Question Id : 50389010310 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

परावलय $x^2 = 4ay$ का व्यास समान्तर है –

Options :

1. ✔ y'- अक्ष से
2. ✖ x'- अक्ष से
3. ✖ एक रेखा से जो निर्देशांक्षों से सामान रूप में प्रतिच्छेदित है
4. ✖ सरल रेखा $y + 3x = 0$ से

Question Number : 167 Question Id : 50389010311 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

The equation of the diameter of the ellipse $3x^2 + 4y^2 = 5$ conjugate to the diameter $y + 3x = 0$ is-

Options :

1. ✖ $3y - x = 0$

2. ✖ y – 4x = 0
3. ✔ x - 4y = 0
4. ✖ y - 3x = 0

Question Number : 167 Question Id : 50389010311 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

परवलय $3x^2 + 4y^2 = 5$ का व्यास, जो व्यास $y + 3x = 0$ का संयुग्म है का समीकरण है –

Options :

1. ✖ 3y – x = 0
2. ✖ y – 4x = 0
3. ✔ x - 4y = 0
4. ✖ y - 3x = 0

Question Number : 168 Question Id : 50389010312 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

For what value of a, the equation axy - 8x + 9y – 12 = 0 represents a pair of straight lines?

Options :

1. ✔ a = 6
2. ✖ a = 0, 6
3. ✖ a = 0, 2
4. ✖ a = 0

Question Number : 168 Question Id : 50389010312 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

समीकरण axy - 8x + 9y – 12 = 0 में a का मान क्या होना चाहिए जिससे की वह एक सरल रेखाओं का युग्म दर्शाए?

Options :

1. ✔ a = 6

2. ✖ a = 0, 6
3. ✖ a = 0, 2
4. ✖ a = 0

Question Number : 169 Question Id : 50389010313 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0.25

The equation of the bisectors of the angle between the lines $x^2 - 4xy - y^2 = 0$ is -

Options :

1. ✖ $x^2 - y^2 - 2xy = 0$

2. ✔ $x^2 - y^2 + xy = 0$

3. ✖ $x^2 - y^2 - xy = 0$

4. ✖ $2x^2 - 2y^2 + xy = 0$

Question Number : 169 Question Id : 50389010313 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0.25

रेखाएं $x^2 - 4xy - y^2 = 0$ के बीच कोण के समद्विभाजक का समीकरण होगा -

Options :

1. ✖ $x^2 - y^2 - 2xy = 0$

2. ✔ $x^2 - y^2 + xy = 0$

3. ✖ $x^2 - y^2 - xy = 0$

4. ✖ $2x^2 - 2y^2 + xy = 0$

Question Number : 170 Question Id : 50389010314 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Which of the following is the eccentricity of parabola $x^2 = 4ay$?

Options :

1. ✖ $\sqrt{\frac{2}{7}}$

2. ✖ $\frac{1}{2}$

3. ✖ $\frac{5}{2}$

4. ✔ 1

Question Number : 170 Question Id : 50389010314 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

निम्नलिखित में से परवलय $x^2 = 4ay$ का उत्केन्द्रता क्या है?

Options :

1. ✖ $\sqrt{\frac{2}{7}}$

2. ✖ $\frac{1}{2}$

3. ✖ $\frac{5}{2}$

4. ✔ 1

Question Number : 171 Question Id : 50389010315 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

A solution-curve of the equation xy' = 2y, passing through (1, 2) also passes through

Options :

1. ✖ (24, 5)
2. ✔ (0, 0)
3. ✖ (4, 12)
4. ✖ (2, 3)

Question Number : 171 Question Id : 50389010315 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

समीकरण xy' = 2y का हल-वक्र, जो की (1, 2) से गुजर रहा है _____ से भी गुजरता है –

Options :

1. ✖ (24, 5)
2. ✔ (0, 0)
3. ✖ (4, 12)

4. ✖ (2, 3)

Question Number : 172 Question Id : 50389010316 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

The singular solution of p = log(px - y) is

Note: For this question, discrepancy is found in question/answer. So,this question is ignored for all candidates.

Options :

1. y = x logx - 1
2. y = x logx
3. y = x(log - 1)
4. y = logx - 1

Question Number : 172 Question Id : 50389010316 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

log(px - y) का विशिष्ट हल (सिंगुलर सलूशन) है –

Note: For this question, discrepancy is found in question/answer. So,this question is ignored for all candidates.

Options :

1. y = x logx - 1
2. y = x logx
3. y = x(log - 1)
4. y = logx - 1

Question Number : 173 Question Id : 50389010317 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

The singular solution of $(xp-y)^2 = p^2 - 1$, where $p = \frac{dy}{dx}$ is –

Options :

1. ✖ $x^2 + y^2 = 2$

2. ✔ $x^2 - y^2 = 1$

3. ✖ $x^2 - y^2 = 2$

4. ✖ $x^2 + y^2 = 1$

Question Number : 173 Question Id : 50389010317 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

$(xp-y)^2 = p^2 - 1$, जहां $p = \frac{dy}{dx}$ है, का विशिष्ट हल (सिंगुलर सलूशन) है-

Options :

1. ✖ $x^2 + y^2 = 2$

2. ✔ $x^2 - y^2 = 1$

3. ✖ $x^2 - y^2 = 2$

4. ✖ $x^2 + y^2 = 1$

Question Number : 174 Question Id : 50389010318 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Which one of the following is a solution of the differential equation

$\left(\frac{dy}{dx}\right)^2 + x\frac{dy}{dx} - y = 0$

Options :

1. ✔ $x^2 + 4y = 0$

2. ✖ $y^2 - 4x = 0$

3. ✖ $y = x + 1$

4. ✖ $y = x - 1$

Question Number : 174 Question Id : 50389010318 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

निम्नलिखित में से कौनसा अवकल समीकरण $\left(\frac{dy}{dx}\right)^2 + x\frac{dy}{dx} - y = 0$ का हल है?

Options :

1. ✔ $x^2 + 4y = 0$

2. ✖ $y^2 - 4x = 0$

3. ✖ $y = x + 1$

4. ✖ $y = x - 1$

Question Number : 175 Question Id : 50389010319 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

The differential equation ydx - 2xdy = 0, represents

Options :

1. ✔ A family of parabolas
2. ✖ A family of catenaries
3. ✖ A family of straight lines
4. ✖ A family of circles

Question Number : 175 Question Id : 50389010319 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

अवकल समीकरण ydx - 2xdy = 0 दर्शाता है–

Options :

1. ✔ परवलयों के एक कुल
2. ✖ कैटेनरी के एक कुल
3. ✖ सरल रेखाओं के एक कुल
4. ✖ वृत्तों के एक कुल

Question Number : 176 Question Id : 50389010320 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

If the equation Mdx + Ndy = 0 has one and only one solution, then the number of integrating-factor is

Options :

1. ✖ Two
2. ✖ One

3. ✔ Infinite
4. ✖ Finite

Question Number : 176 Question Id : 50389010320 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

यदि समीकरण $Mdx + Ndy = 0$ का एक और केवल एक ही हल है, तो समाकलन गुणकों की संख्या है –

Options :

1. ✖ दो
2. ✖ एक
3. ✔ अनंत
4. ✖ परिमित

Question Number : 177 Question Id : 50389010321 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Which of the following is not an integrating factor to the equation $xdy - ydx = 0$?

Options :

1. ✖ $\frac{1}{xy}$
2. ✖ $\frac{1}{x^2}$
3. ✔ $\frac{1}{x}$
4. ✖ $\frac{1}{x^2 + y^2}$

Question Number : 177 Question Id : 50389010321 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

समीकरण $xdy - ydx = 0$ का कौनसा समाकलन गुणक नहीं है?

Options :

1. ✖ $\frac{1}{xy}$

2. ✖ $\frac{1}{x^2}$

3. ✔ $\frac{1}{x}$

4. ✖ $\frac{1}{x^2 + y^2}$

Question Number : 178 Question Id : 50389010322 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

The solution $y = 0$ of the equation $9yp^2 + 4 = 0, \left(p = \frac{dy}{dx}\right)$ is –

Options :

1. ✖ Nodal-locus

2. ✖ Singular solution

3. ✖ Tac - locus

4. ✔ Cuspidal - locus

Question Number : 178 Question Id : 50389010322 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

समीकरण $9yp^2 + 4 = 0, \left(p = \frac{dy}{dx}\right)$ का हल $y = 0$ है –

Options :

1. ✖ नोड पथ
2. ✖ विशिष्ट हल
3. ✖ स्पर्श बिंदु-पथ
4. ✔ उभयाग्र पथ

Question Number : 179 Question Id : 50389010323 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

The p – discriminant does not contain one of the following:

Options :

1. ✔ Nodal-locus
2. ✖ Envelop
3. ✖ Tac - locus
4. ✖ Cuspidal - locus

Question Number : 179 Question Id : 50389010323 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

p-विविक्तकर में निम्नलिखित में से क्या उपस्थित नहीं होता?

Options :

1. ✔ नोड पथ
2. ✖ एन्वालोप
3. ✖ स्पर्श बिंदु-पथ
4. ✖ उभयाग्र पथ

Question Number : 180 Question Id : 50389010324 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

The integrating factor of the differential equation xp – y = x cosx is

Options :

1. ✖ $e^{\frac{1}{x}}$

2. ✔ $\frac{1}{x}$

3. ✖ x

4. ✖ $e^{-\frac{1}{x^2}}$

Question Number : 180 Question Id : 50389010324 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

अवकलन समीकरण xp – y = x cosx का समाकलन गुणक है –

Options :

1. ✖ $e^{\frac{1}{x}}$

2. ✔ $\frac{1}{x}$

3. ✖ x

4. ✖ $e^{-\frac{1}{x^2}}$

Discipline5

Group Number :	10
Group Id :	503890270
Group Maximum Duration :	0
Group Minimum Duration :	0
Show Attended Group? :	No
Edit Attended Group? :	No
Break time :	0
Group Marks :	20
Is this Group for Examiner? :	No

Discipline5

Section Id :	503890406
Section Number :	1
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	20
Number of Questions to be attempted :	20
Section Marks :	20
Enable Mark as Answered Mark for Review and Clear Response :	Yes
Sub-Section Number :	1
Sub-Section Id :	503890479
Question Shuffling Allowed :	Yes

Question Number : 181 Question Id : 50389010325 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

If A is an idempotent matrix and A + B = I, then B is:

Options :

1. ✖ An involuntary matrix
2. ✔ An idempotent matrix
3. ✖ A null matrix
4. ✖ A nilpotent matrix

Question Number : 181 Question Id : 50389010325 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

यदि A एक वर्गसम (Idempotent) आव्यूह है और A + B = I, तो B है –

Options :

1. ✖ एक अनैच्छिक आव्यूह (involuntary matrix)
2. ✔ एक वर्गसम आव्यूह
3. ✖ एक शून्य आव्यूह (null matrix)
4. ✖ एक शून्यंभावी आव्यूह (nilpotent matrix)

Question Number : 182 Question Id : 50389010326 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

If A and B are idempotent matrices of same order, then AB is idempotent matrix if and only if:

Options :

1. ✖ AB = 0
2. ✖ AB + BA = 0
3. ✖ BA = 0
4. ✔ AB = BA

Question Number : 182 Question Id : 50389010326 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

यदि A और B समान कोटि के वर्गसम आव्यूह है, तो AB एक वर्गसम आव्यूह हो सकता है, यदि और केवल यदि –

Options :

1. ✖ AB = 0 हो तो

2. ✖ AB + BA = 0 हो तो

3. ✖ BA = 0 हो तो

4. ✔ AB = BA हो तो

Question Number : 183 Question Id : 50389010327 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

If $M = \begin{pmatrix} -5 & -8 & 0 \\ 3 & 5 & 0 \\ 1 & 2 & -1 \end{pmatrix}$, then M is –

Note: For this question, discrepancy is found in question/answer. So,this question is ignored for all candidates.

Options :

1. Involuntary

2. Periodic

3. Nilpotent

4. Orthogonal

Question Number : 183 Question Id : 50389010327 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

यदि $M = \begin{pmatrix} -5 & -8 & 0 \\ 3 & 5 & 0 \\ 1 & 2 & -1 \end{pmatrix}$, तो M है –

Note: For this question, discrepancy is found in question/answer. So,this question is ignored for all candidates.

Options :

1. अनैच्छिक (involuntary) आव्यूह
2. सामयिक (periodic) आव्यूह
3. शून्यंभावी (nilpotent) आव्यूह
4. लाम्बिक (orthogonal) आव्यूह

Question Number : 184 Question Id : 50389010328 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

If A and B are orthogonal matrices and det(A) + det(B) = 0 then (A + B) is a

Options :

1. ✔ Singular
2. ✖ Idempotent
3. ✖ Non-singular
4. ✖ Orthogonal

Question Number : 184 Question Id : 50389010328 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

यदि A और B लाम्बिक आव्यूह हो और det(A) + det(B) = 0, तो (A + B) है -

Options :

1. ✔ अव्युत्क्रमणीय (singular) आव्यूह
2. ✖ वर्गसम (idempotent) आव्यूह
3. ✖ व्युत्क्रमणीय (non-singular) आव्यूह
4. ✖ लाम्बिक (orthogonal) आव्यूह

Question Number : 185 Question Id : 50389010329 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

For what value of λ, the system of equation $3x + 2y + z = 10$, $2x + 3y + 2z = 10$, $x + 2y + \lambda z = 10$ is inconsistent?

Options :

1. ✖ 1.3
2. ✖ 1.5
3. ✔ 1.4
4. ✖ 1.6

Question Number : 185 Question Id : 50389010329 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

यदि समीकरणों के निकाय $3x + 2y + z = 10$, $2x + 3y + 2z = 10$, $x + 2y + \lambda z = 10$ असंगत निकाय हो तो, λ का मान क्या होगा?

Options :

1. ✖ 1.3
2. ✖ 1.5
3. ✔ 1.4
4. ✖ 1.6

Question Number : 186 Question Id : 50389010330 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

The skew symmetric determinant of odd order is

Options :

1. ✖ -1
2. ✔ 0
3. ✖ 1
4. ✖ Square of a polynomial function of its elements

Question Number : 186 Question Id : 50389010330 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

विषम कोटि के विषम सममित सारणिक (skew symmetric determinant) का मान होगा –

Options :

1. ✖ -1
2. ✔ 0

3. ✖ 1

4. ✖ उसके अवयवों के बहुपद फलन का वर्ग

Question Number : 187 Question Id : 50389010331 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

If A and B be two 4 × 4 non-zero matrices such that rank(A) = 2, then rank(BA) cannot be:

Note: For this question, discrepancy is found in question/answer. So,this question is ignored for all candidates.

Options :

1. 4
2. 1
3. 3
4. 2

Question Number : 187 Question Id : 50389010331 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

यदि A और B दो 4 × 4 शुन्येतर आव्यूह हो, जैसे कि rank(A) = 2, तो rank(BA) का मान _____ नहीं होगा:

Note: For this question, discrepancy is found in question/answer. So,this question is ignored for all candidates.

Options :

1. 4
2. 1
3. 3
4. 2

Question Number : 188 Question Id : 50389010332 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

If $A = \begin{pmatrix} 5a & -b \\ 3 & 2 \end{pmatrix}$ and $AdjA = AA^T$, then $5a + b$ is equal to :

Note: For this question, discrepancy is found in question/answer. So,this question is ignored for all candidates.

Options :

1. 4
2. 5
3. -1
4. 13

Question Number : 188 Question Id : 50389010332 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

यदि $A = \begin{pmatrix} 5a & -b \\ 3 & 2 \end{pmatrix}$ और $AdjA = AA^T$, , तो $5a + b$ का मान होगा:

Note: For this question, discrepancy is found in question/answer. So,this question is ignored for all candidates.

Options :

1. 4
2. 5
3. -1
4. 13

Question Number : 189 Question Id : 50389010333 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Rank of singular matrix of order 5 can be at most

Options :

1. ✖ 5
2. ✖ 2
3. ✖ 3
4. ✔ 4

Question Number : 189 Question Id : 50389010333 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

एक अव्युत्क्रमणीय आव्यूह जिसकी कोटि 5 हो, उसकी जाति अधिकतम _____ हो सकता है।

Options :

1. ✖ 5
2. ✖ 2
3. ✖ 3
4. ✔ 4

Question Number : 190 Question Id : 50389010334 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

If A and B are orthogonal matrices then $\begin{pmatrix} A & O \\ O & B \end{pmatrix}$ is:

Options :

1. ✖ Symmetric
2. ✖ Singular
3. ✖ Skew-symmetric
4. ✔ Orthogonal

Question Number : 190 Question Id : 50389010334 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

यदि A और B लाम्बिक आव्यूह हो, तो $\begin{pmatrix} A & O \\ O & B \end{pmatrix}$ होगा:

Options :

1. ✖ सममित (symmetric) आव्यूह
2. ✖ अव्युत्क्रमणीय (singular) आव्यूह
3. ✖ विषम सममित (skew-symmetric) आव्यूह
4. ✔ लाम्बिक (orthogonal) आव्यूह

Question Number : 191 Question Id : 50389010335 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

If LCM and HCF of two quadratic equations are $(x^3 + 2x^2 - x - 2)$ and $(x + 2)$ respectively then, the equations are -

Options :

1. ✖ $x^2 - 3x + 2$ and $x^2 - x - 2$

2. ✔ $x^2 + 3x + 2$ and $x^2 + x - 2$

3. ✖ $x^2 + 3x + 2$ and $x^2 + x + 2$

4. ✖ $x^2 - 3x + 2$ and $x^2 + x - 2$

Question Number : 191 Question Id : 50389010335 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

दो द्विघात समीकारणों के लघुतम समापवर्त्य और महत्तम समापवर्तक क्रमशः $(x^3 + 2x^2 - x - 2)$ और $(x + 2)$ है, तो समीकरण हैं –

Options :

1. ✖ $x^2 - 3x + 2$ और $x^2 - x - 2$

2. ✔ $x^2 + 3x + 2$ और $x^2 + x - 2$

3. ✖ $x^2 + 3x + 2$ और $x^2 + x + 2$

4. ✖ $x^2 - 3x + 2$ और $x^2 + x - 2$

Question Number : 192 Question Id : 50389010336 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Two quadratic equations f(x) and g(x) are having G.C.D. and L.C.M. $(x^2 + x - 2)$ and $(x^4 + 3x^3 - 3x^2 - 7x + 6)$ respectively.

If $f(x) = x^3 + 4x^2 + x - 6$, then what is the value of g(x) -

Options :

1. ✖ $x^3 - 3x - 2$

2. ✖ $x^3 - 3x^2 - 2$

3. ✖ $x^3 - 3x^2 + 2$

4. ✔ $x^3 - 3x + 2$

Question Number : 192 Question Id : 50389010336 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option

Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

दो द्विघात समीकरणों $f(x)$ और $g(x)$ के सार्व भाजक और लघुतम समापवर्त्य क्रमशः $(x^2 + x - 2)$ और $(x^4 + 3x^3 - 3x^2 - 7x + 6)$ है.

यदि $f(x) = x^3 + 4x^2 + x - 6$, तो $g(x)$ का मान होगा –

Options :

1. ✖ $x^3 - 3x - 2$

2. ✖ $x^3 - 3x^2 - 2$

3. ✖ $x^3 - 3x^2 + 2$

4. ✔ $x^3 - 3x + 2$

Question Number : 193 Question Id : 50389010337 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Which of the following is false?

Note: For this question, discrepancy is found in question/answer. So,this question is ignored for all candidates.

Options :

1. If m, n are integers, the equations $x^n - 1 = 0$ and $x^m - 1 = 0$ have no common root except 1.

2. If $\propto$, be any root of $x^n - 1 = 0$ then a^m is also a root, where m is integer number.

3. If n, be prime and $\propto$ be an imaginary root of $x^n - 1 = 0$ then 1, $\propto$, $\propto^2$,..... $\propto^{n-1}$ are the roots of $x^n - 1 = 0$

4. If d be the G.C.D. of m and n, the common roots of $x^m - 1 = 0$ and $x^n - 1 = 0$ are roots of $x^d - 1 = 0$ conversely.

Question Number : 193 Question Id : 50389010337 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

निम्नलिखित में से कौनसा असत्य है?

Note: For this question, discrepancy is found in question/answer. So,this question is ignored for all candidates.

Options :

1. यदि m, n पूर्णांक है, तो समीकरण $x^n - 1 = 0$ और $x^m - 1 = 0$, के 1 को छोड़कर और कोई उभयनिष्ठ मूल नहीं है

2. यदि $\propto$, $x^n - 1 = 0$, का कोई एक मूल हो, तो a^m भी एक मूल होगा, जहां m एक पूर्णांक है

3. **यदि n, अभाज्य हो और $\propto$, समीकरण $x^n - 1 = 0$ के काल्पनिक मूल हो, तो 1, $\propto$, $\propto^2$,..... $\propto^{n-1}$ मूल होंगे समीकरण $x^n - 1 = 0$ के**

4. यदि m और n के सार्व भाजक d हो तो विलोमतः $x^m - 1 = 0$ और $x^n - 1 = 0$ के उभयनिष्ठ मूल $x^d - 1 = 0$ के मूल होंगे

Question Number : 194 Question Id : 50389010338 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

If $x^n - px^2 + r = 0$ is having equal roots, then relation between n, p and r is -

Options :

1. ✔ $n^n r^{n-2} = 4p^n(n - 2)^{n-2}$

2. ✖ $n^n r^{n-1} = 4p(n - 2)^{n-1}$

3. ✖ $n^n r^n = 4p(n - 2)^n$

4. ✖ $n^{n-2} r^{n-1} = 4p^n(n - 2)^{n-2}$

Question Number : 194 Question Id : 50389010338 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

यदि $x^n - px^2 + r = 0$ के समान मूल हो, तो n, p और r के बीच संबंध होगा –

Options :

1. ✔ $n^n r^{n-2} = 4p^n(n - 2)^{n-2}$

2. ✖ $n^n r^{n-1} = 4p(n - 2)^{n-1}$

3. ✖ $n^n r^n = 4p(n - 2)^n$

4. ✖ $n^{n-2}\, r^{n-1} = 4p^n(n-2)^{n-2}$

Question Number : 195 Question Id : 50389010339 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

The sum of coefficients of integral power of x in the binomial expansion of $(1 - 2\sqrt{x})^{50}$ is -

Options :

1. ✖ $\frac{1}{2}(3^{50} - 1)$

2. ✖ $\frac{1}{2}(2^{50} + 1)$

3. ✔ $\frac{1}{2}(3^{50} + 1)$

4. ✖ $\frac{1}{2}(3^{50})$

Question Number : 195 Question Id : 50389010339 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

$(1 - 2\sqrt{x})^{50}$ के द्विपद प्रसार में x के घात पूर्णांकों के गुणांकों का योग होगा –

Options :

1. ✖ $\frac{1}{2}(3^{50} - 1)$

2. ✖ $\frac{1}{2}(2^{50}+1)$

3. ✔ $\frac{1}{2}(3^{50}+1)$

4. ✖ $\frac{1}{2}(3^{50})$

Question Number : 196 Question Id : 50389010340 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

If the polynomial $8x^4 - 2x^3 - ax^2 + bx - 3$ is divisible by $2x^2 + x - 3$, then the value of a and b are respectively-

Note: For this question, discrepancy is found in question/answer. So,this question is ignored for all candidates.

Options :

1. -8 and -5
2. 10 and 13
3. 8 and 5
4. -13 and -10

Question Number : 196 Question Id : 50389010340 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

यदि बहुपद $8x^4 - 2x^3 - ax^2 + bx - 3$, $2x^2 + x - 3$ से विभाज्य हो तो a और b का क्रमशः मान होगा –

Note: For this question, discrepancy is found in question/answer. So,this question is ignored for all candidates.

Options :

1. -8 और -5
2. 10 और 13
3. 8 और 5
4. -13 और -10

Question Number : 197 Question Id : 50389010341 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Which of the following is an example of a polynomial equation not having any real roots?

Note: For this question, discrepancy is found in question/answer. So,this question is ignored for all candidates.

Options :

1. $x^4 - 9 = 0$
2. $x^3 + 7 = 0$
3. $x^2 - x + 4 = 0$
4. $x^3 + 3 = 0$

Question Number : 197 Question Id : 50389010341 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

निम्नलिखित में से कौनसा एक बिना वास्तविक मूलों के बहुपद समीकरण का उदाहरण है?

Note: For this question, discrepancy is found in question/answer. So,this question is ignored for all candidates.

Options :

1. $x^4 - 9 = 0$

2. $x^3 + 7 = 0$

3. $x^2 - x + 4 = 0$

4. $x^3 + 3 = 0$

Question Number : 198 Question Id : 50389010342 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Let P(x) be a quadratic polynomial such that P(0) = 1. If P(x) leaves remainder 4 when divided by x - 1 and it leaves remainder 6 when divided by x + 1, then

Options :

1. ✖ P(-2) = 11
2. ✔ P(-2) = 19
3. ✖ P(2) = 11
4. ✖ P(2) = 19

Question Number : 198 Question Id : 50389010342 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

मान लीजिये कि P(x) एक द्विघात बहुपद है, जिससे की P(0) = 1 है | यदि P(x) को x-1 से विभाजित करने पर शेषफल 4 रहता है और x + 1 से विभाजित करने पर शेषफल 6 रहता है, तो–

Options :

1. ✖ P(-2) = 11

2. ✔ P(-2) = 19

3. ✖ P(2) = 11

4. ✖ P(2) = 19

Question Number : 199 Question Id : 50389010343 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

If b > a, the equation (x - a) (x - b) = 0 has

Note: For this question, discrepancy is found in question/answer. So,this question is ignored for all candidates.

Options :

1. One root in (-∞, a) and other in (b, ∞)

2. Both roots in (-∞, a)

3. Both roots in (b, ∞)

4. Both roots in (a, b)

Question Number : 199 Question Id : 50389010343 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

यदि b > a हो, तो समीकरण (x - a) (x - b) = 0–

Note: For this question, discrepancy is found in question/answer. So,this question is ignored for all candidates.

Options :

1. का एक मूल (-∞, a) में है और दूसरा (b, ∞) में

2. के दोनों मूल (-∞, a) में है

3. के दोनों मूल (b, ∞) में है

4. के दोनों मूल (a, b) में है

Question Number : 200 Question Id : 50389010344 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

The value of b, if $x^3 - 5x^2 + 4bx + 3$ be divisible by $(x - 3)$, is -

Options :

1. ✖ $\frac{2}{5}$

2. ✖ $\frac{7}{3}$

3. ✖ $\frac{3}{4}$

4. ✔ $\frac{5}{4}$

Question Number : 200 Question Id : 50389010344 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

यदि $x^3 - 5x^2 + 4bx + 3$, $(x - 3)$ से विभाज्य हो तो, b का मान होगा -

Options :

1. ✖ $\frac{2}{5}$

2. ✖ $\frac{7}{3}$

3. ✖ $\frac{3}{4}$

4. ✔ $\frac{5}{4}$

Discipline6

Group Number :	11
Group Id :	503890271
Group Maximum Duration :	0
Group Minimum Duration :	0
Show Attended Group? :	No
Edit Attended Group? :	No
Break time :	0
Group Marks :	20
Is this Group for Examiner? :	No

Discipline6

Section Id :	503890407
Section Number :	1
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	20
Number of Questions to be attempted :	20
Section Marks :	20
Enable Mark as Answered Mark for Review and Clear Response :	Yes
Sub-Section Number :	1
Sub-Section Id :	503890480

Question Shuffling Allowed : Yes

Question Number : 201 Question Id : 50389010345 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

The equation $(x - a)^3 + (x - b)^3 + (x - c)^3 + (x - d)^3 = 0$, where a, b, c, d are positive and not all equal, has-

Options :

1. ✔ Only one real root
2. ✖ Two real roots
3. ✖ No real root
4. ✖ All roots are equal

Question Number : 201 Question Id : 50389010345 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

समीकरण $(x - a)^3 + (x - b)^3 + (x - c)^3 + (x - d)^3 = 0$, जहां a, b, c, d धनात्मक और असामान है, -

Options :

1. ✔ का एक ही वास्तविक मूल है
2. ✖ के दो वास्तविक मूल है
3. ✖ का कोई वास्तविक मूल नहीं है
4. ✖ के सारे मूल समान है

Question Number : 202 Question Id : 50389010346 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

The polynomial $ax^3 + bx + c$ is divisible by $x^2 + px + 1$ if:

Options :

1. ✖ $ac = b^2$

2. ✖ $b^2 - c^2 = ab$

3. ✖ $a^2 + b^2 = ac$

4. ✔ $a^2 - c^2 = ab$

Question Number : 202 Question Id : 50389010346 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

बहुपद $ax^3 + bx + c$ विभाज्य होगा $x^2 + px + 1$ से, यदि:

Options :

1. ✖ $ac = b^2$

2. ✖ $b^2 - c^2 = ab$

3. ✖ $a^2 + b^2 = ac$

4. ✔ $a^2 - c^2 = ab$

Question Number : 203 Question Id : 50389010347 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

The remainder when $4x^4 - 10x^2 + 1$ is divided by $(x + 2)$ is:

Options :

1. ✖ 2
2. ✖ 32
3. ✖ 24
4. ✔ 25

Question Number : 203 Question Id : 50389010347 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

यदि $4x^4 - 10x^2 + 1$ को $(x + 2)$ से विभाजित किया जाए तो शेषफल होगा –

Options :

1. ✖ 2
2. ✖ 32
3. ✖ 24
4. ✔ 25

Question Number : 204 Question Id : 50389010348 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

The rate at which the radius of a sphere changes over time is $\frac{1}{2\pi}$. When the radius is 5 cm, then the rate of change of the lightning surface area of the sphere will be:

Options :

1. ✔ 20 cm^2/sec
2. ✖ 10 cm^2 /sec
3. ✖ 15 cm^2 /sec
4. ✖ 5 cm^2 /sec

Question Number : 204 Question Id : 50389010348 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

एक गोले की त्रिज्या, समय के साथ $\frac{1}{2\pi}$ के दर से बदलती है। जब त्रिज्या 5 सेमी हो, तब गोले का उपरी पृष्ठीय क्षेत्रफल (lightning surface area) के बदलने का दर होगा –

Options :

1. ✔ 20 सेमी वर्ग / सेकंड
2. ✖ 10 सेमी वर्ग / सेकंड
3. ✖ 15 सेमी वर्ग / सेकंड
4. ✖ 5 सेमी वर्ग / सेकंड

Question Number : 205 Question Id : 50389010349 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

The arm length of an equilateral triangle increases at a rate of $\sqrt{3}$ cm/sec. When the length of arm is 10 cm, then the area of triangle will increase by–

Options :

1. ✖ 10 cm^2/sec
2. ✖ 20 cm^2 /sec
3. ✔ 15 cm^2 /sec
4. ✖ 25 cm^2 /sec

Question Number : 205 Question Id : 50389010349 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

एक समद्विबाहु त्रिभुज की भुजा की लंबाई $\sqrt{3}$ सेमी/सेकंड की दर से बढ़ती है | जब भुजा की लंबाई 10 सेमी है, तब त्रिभुज का क्षेत्रफल की वृद्धि _____ के दर से होगी |

Options :

1. ✖ 10 सेमी वर्ग / सेकंड

2. ✖ 20 सेमी वर्ग / सेकंड
3. ✔ 15 सेमी वर्ग / सेकंड
4. ✖ 25 सेमी वर्ग / सेकंड

Question Number : 206 Question Id : 50389010350 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

A particle moving in a straight line has displacement x feet in t second, where $x = t^3 + 6t^2 + 15t$. Then at the end of first second the velocity and acceleration of the particle will be –

Options :

1. ✖ 20 feet/sec^2 and 12 feet/sec^2

2. ✔ 30 feet /sec^2 and 18 feet/sec^2

3. ✖ 20 feet /sec^2 and 18 feet/sec^2

4. ✖ 30 feet /sec^2 and 12 feet/sec^2

Question Number : 206 Question Id : 50389010350 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

एक सीधी रेखा में गतिमान कण का विस्थापन x feet (फीट) t sec (सेकंड) में होता है, जहाँ $x = t^3 + 6t^2 + 15t$ है, फिर पहले सेकंड के अंत में कण का वेग और त्वरण होगा–

Options :

1. ✖ 20 फीट/सेकंड^2 और 12 फीट/सेकंड^2

2. ✔ 30 फीट/सेकंड^2 और 18 फीट/सेकंड^2

3. ✖ 20 फीट/सेकंड^2 और 18 फीट/सेकंड^2

4. ✖ 30 फीट/सेकंड^2 और 12 फीट/सेकंड^2

Question Number : 207 Question Id : 50389010351 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

The arm length of a cube is 10 cm. If the error in measuring the length of arm is 0.08 cm, the approximate value of the error in the volume of the cube will be:

Options :

1. ✔ 24 cm^3

2. ✖ 15 cm^3

3. ✖ 8 cm^3

4. ✖ 12 cm^3

Question Number : 207 Question Id : 50389010351 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

एक घन की भुजा की लंबाई 10 सेमी है। यदि भुजा की लंबाई मापने में त्रुटि 0.08 सेमी की है, तो घन के आयतन में त्रुटि का अनुमानित मान होगा:

Options :

1. ✔ 24 सेमी^{3}

2. ✖ 15 सेमी^{3}

3. ✖ 8 सेमी^{3}

4. ✖ 12 सेमी^{3}

Question Number : 208 Question Id : 50389010352 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

The volume of a gas $V = \frac{600}{P}$ varies with the pressure according to Boyle's Law. If the pressure increases from $P = 20$ to $P = 20.5$, then the rate of change of volume with pressure will be:

Options :

1. ✖ -1.42
2. ✖ -1.44
3. ✖ -1.45
4. ✔ -1.48

Question Number : 208 Question Id : 50389010352 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

बॉयल के नियम के अनुसार गैस का आयतन $V = \frac{600}{P}$ दाब के साथ बदलता रहता है। यदि दाब $P = 20$ से बढ़कर $P = 20.5$ हो जाता है, तो दाब के साथ आयतन के परिवर्तन की दर होगी:

Options :

1. ✖ -1.42
2. ✖ -1.44
3. ✖ -1.45
4. ✔ -1.48

Question Number : 209 Question Id : 50389010353 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Let $y^2 = 4x$ be the coordinates of particle moving over an ellipse at a point where the growth rate of the ground is twice, then the rate of the y-axis is

Options :

1. ✖ (2, 4)

2. ✖ (4, 2)
3. ✖ (2, 2)
4. ✔ (4, 4)

Question Number : 209 Question Id : 50389010353 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

मान लीजिये की जिस बिंदु पर जमीन की वृद्धि दर दोगुनी है, वहां एक कण, दीर्घवृत्त $y^2 = 4x$, पर गतिमान है, तो y-अक्ष की दर है -

Options :

1. ✖ (2, 4)
2. ✖ (4, 2)
3. ✖ (2, 2)
4. ✔ (4, 4)

Question Number : 210 Question Id : 50389010354 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

In the equation $f(x) = 2x^2 + 3x + 5$ the value of x changes from 2 to 2.02 then the expectation will increase and decrease respectively

Options :

1. ✔ 0.2208 and 0.22
2. ✖ 0.2204 and 0.22
3. ✖ 0.2204 and 0.24
4. ✖ 0.2208 and 0.24

Question Number : 210 Question Id : 50389010354 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

समीकरण $f(x) = 2x^2 + 3x + 5$ में जहाँ x का मान 2 से 2.02 में बदल जाता है तो अपेक्षा क्रमशः _____ बढ़ेगी और _____ घटेगी-

Options :

1. ✔ 0.2208, 0.22
2. ✖ 0.2204, 0.22

3. ✖ 0.2204, 0.24

4. ✖ 0.2208, 0.24

Question Number : 211 Question Id : 50389010355 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

The function $f(z) = \frac{(z-1)}{(z-2)} \sin\frac{1}{z-\frac{1}{2}}$ has-

Note: For this question, discrepancy is found in question/answer. So,this question is ignored for all candidates.

Options :

1. A double pole at $z = 1$ and isolated essential singularity at $z = \frac{1}{2}$

2. A zero at $z = 1$ of order two and isolated essential singularity at $z = \frac{1}{2}$

3. A zero at $z = 2$ of order one and isolated essential singularity at $z = \frac{1}{2}$

4. A simple pole at $z = 2$ and non-isolated essential singularity at $z = \frac{1}{2}$

Question Number : 211 Question Id : 50389010355 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

$f(z) = \frac{(z-1)}{(z-2)} \sin\frac{1}{z-\frac{1}{2}}$ **का फलन-**

Note: For this question, discrepancy is found in question/answer. So,this question is ignored for all candidates.

Options :

1. $z = 1$ पर दो ध्रुव और $z = \frac{1}{2}$ पर आवश्यक विलग विचित्रता है

2. $z = 1$ पर दो कोटि के शून्य है और $z = \frac{1}{2}$ पर आवश्यक विलग विचित्रता है

3. $z = 2$ पर एक कोटि के शून्य है और $z = \frac{1}{2}$ पर आवश्यक विलग विचित्रता है

4. $z = 2$ पर एक सरल ध्रुव है और $z = \frac{1}{2}$ पर आवश्यक गैर- विलग विचित्रता है

Question Number : 212 Question Id : 50389010356 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Consider the integrals,

$I_1 = \int_c \frac{e^z}{(z+1)^4} dz$, where c is a circle $|z| = 2$

And $I_2 = \int_c \frac{\sin 3z}{z^2} dz$, where c is a circle $|z| = 1$

Then:

Options :

1. ✖ $I_1 = \frac{\pi i e}{3}, I_2 = 2\pi i$

2. ✖ $I_1 = \frac{\pi i}{3e}, I_2 = -6\pi i$

3. ✖ $I_1 = \frac{\pi ie}{3}, I_2 = 0$

4. ✔ $I_1 = \frac{\pi i}{3e}, I_2 = 6\pi i$

Question Number : 212 Question Id : 50389010356 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

समाकलन पर विचार करें –

$I_1 = \int_c \frac{e^z}{(z+1)^4} dz$, जहां c एक गोला है $|z| = 2$

और $I_2 = \int_c \frac{\sin 3z}{z^2} dz$, जहां c एक गोला है $|z| = 1$

तो –

Options :

1. ✖ $I_1 = \frac{\pi ie}{3}, I_2 = 2\pi i$

2. ✖ $I_1 = \frac{\pi i}{3e}, I_2 = -6\pi i$

3. ✖ $I_1 = \frac{\pi ie}{3}, I_2 = 0$

4. ✔ $I_1 = \frac{\pi i}{3e}, I_2 = 6\pi i$

Question Number : 213 Question Id : 50389010357 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Consider the bilinear transformation $\omega = \frac{z-1}{z+1}$. Which of the following is true?

Options :

1. ✖ The fixed point are z = ±i and the transformation is hyperbolic
2. ✖ The fixed point are z = 1,2 and the transformation is elliptic
3. ✔ The fixed point are z = ±i and the transformation is elliptic
4. ✖ The fixed point are z = ±1 and the transformation is hyperbolic

Question Number : 213 Question Id : 50389010357 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

एकैकी परिवर्तन $\omega = \frac{z-1}{z+1}$ पर विचार करें | निम्नलिखित में से कौनसा सही है?

Options :

1. ✖ नियत बिंदु z = ±i है और परिवर्तन अतिपरवालिक है
2. ✖ नियत बिंदु z = 1,2 है और परिवर्तन अंडाकार है
3. ✔ नियत बिंदु z = ±i है और परिवर्तन अंडाकार है
4. ✖ नियत बिंदु z = ±1 है और परिवर्तन अतिपरवालिक है

Question Number : 214 Question Id : 50389010358 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Let T: $\mathbf{C} \cup \{\infty\} \Longrightarrow \mathbf{C} \cup \{\infty\}$ be the bilinear transformation such that T(i) = 0, T (0) = - 1, T (-i) = ∞.

Then the image of the region, $\{z \in \mathbf{C}: \mathrm{Im}(z) = 0\}$ under the mapping $\omega = T(z)$ is:

Options :

1. ✖ $\{\omega \in \mathbf{C}: |\omega| > 1\}$

2. ✖ $\{\omega \in \mathbf{C}: |\omega| < 1\}$

3. ✔ $\{\omega \in \mathbf{C}: |\omega| = 1\}$

4. ✖ $\{\omega \in \mathbf{C}: \mathrm{Re}(\omega) = 0, \mathrm{Im}(\omega) = 0\}$

Question Number : 214 Question Id : 50389010358 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

मान लीजिये की $T: \mathbf{C} \cup \{\infty\} \Longrightarrow \mathbf{C} \cup \{\infty\}$ एक एकैकी परिवर्तन है जैसे की $T(i) = 0$, $T(0) = -1$, $T(-i) = \infty$.

तो मानचित्र $\omega = T(z)$ के अंतर्गत क्षेत्र $\{z \in C: \mathrm{Im}(z) = 0\}$ की छवि है:

Options :

1. ✖ $\{\omega \in \mathbf{C}: |\omega| > 1\}$

2. ✖ $\{\omega \in \mathbf{C}: |\omega| < 1\}$

3. ✔ $\{\omega \in \mathbf{C}: |\omega| = 1\}$

4. ✖ $\{\omega \in \mathbf{C}: \mathrm{Re}(\omega) = 0, \mathrm{Im}(\omega) = 0\}$

Question Number : 215 Question Id : 50389010359 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Consider the series $\sum_{n=1}^{\infty} \frac{1}{(z^2+1)^n}$ Which of the following is true?

Options :

1. ✖ The sum of the series is $z^2 + 1$

2. ✔ The sum of the series is $\frac{1}{z^2}$

3. ✖ The series converges if $|z| < 1$

4. ✖ The sum of the series is $z^2 - 1$

Question Number : 215 Question Id : 50389010359 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

अनुक्रम $\sum_{n=1}^{\infty} \frac{1}{(z^2+1)^n}$ पर विचार करें | निम्नलिखित में से कौनसा सही है?

Options :

1. ✖ अनुक्रम का योग है $z^2 + 1$

2. ✔ अनुक्रम का योग है $\frac{1}{z^2}$

3. ✖ अनुक्रम अभिसारी होगा यदि $|z| < 1$

4. ✖ अनुक्रम का योग है $z^2 - 1$

Question Number : 216 Question Id : 50389010360 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Let $f(z) = \frac{\cos(z-1)}{z-1}$, then,

Options :

1. ✖ f(z) has isolated essential singularity at z = 1
2. ✔ f(z) has simple pole at z = 1
3. ✖ Residue of f at z =1 is undefined
4. ✖ Residue of f at z =1 is not equal to 1

Question Number : 216 Question Id : 50389010360 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

मान लीजिये कि $f(z)=\frac{\cos(z-1)}{z-1}$, तो –

Options :

1. ✖ z = 1 पर f(z) का आवश्यक विलग विचित्रता है
2. ✔ z = 1 पर f(z) का एक सरल ध्रुव है
3. ✖ z =1 पर f का अवशेष परिभाषित है
4. ✖ z =1 पर f का अवशेष 1 के समान नहीं है

Question Number : 217 Question Id : 50389010361 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option

Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

The function $f(z) = e^{-\frac{1}{z^2}}$ has-

Options :

1. ✖ An essential singularity at z = 0
2. ✖ A pole at z = 0
3. ✖ An essential singularity at z = ∞
4. ✔ No singularity

Question Number : 217 Question Id : 50389010361 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

$f(z) = e^{-\frac{1}{z^2}}$ का फलन:

Options :

1. ✖ z = 0 पर एक आवश्यक विलग विचित्रता है
2. ✖ z = 0 पर एक ध्रुव है
3. ✖ z = ∞ पर एक आवश्यक विलग विचित्रता है
4. ✔ कोई विचित्रता नहीं है

Question Number : 218 Question Id : 50389010362 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

If $f(z) = |z|^2$, then:

Options :

1. ✖ f is continuous but not differentiable at 0
2. ✖ f is neither continuous nor differentiable at 0
3. ✔ f is continuous and differentiable at 0
4. ✖ f is discontinuous at 1

Question Number : 218 Question Id : 50389010362 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

यदि $f(z) = |z|^2$ है, तो –

Options :

1. ✖ f संतत है 0 पर अवकलनीय नहीं है
2. ✖ f , 0 पर ना ही संतत है और ना ही अवकलनीय
3. ✔ f , 0 पर संतत व अवकलनीय है
4. ✖ f , 1 पर असंतत है

Question Number : 219 Question Id : 50389010363 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

The residue of the function $f(x) = e^{-\frac{1}{x}}$ at $x = 0$

Note: For this question, discrepancy is found in question/answer. So,this question is ignored for all candidates.

Options :

1. is 1
2. Does not exist, since 0 is not a singular point
3. is 0
4. Does not exist, since 0 is not a non-isolated singular point

Question Number : 219 Question Id : 50389010363 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

फलन $f(x) = e^{-\frac{1}{x}}$ का $x = 0$ में अवशेष –

Note: For this question, discrepancy is found in question/answer. So,this question is ignored for all candidates.

Options :

1. 1 है
2. अस्तित्व में नहीं है, क्योंकि 0 एक विचित्र बिंदु नहीं है
3. 0 है
4. अस्तित्व में नहीं है, क्योंकि 0 एक गैर-विलग विचित्र बिंदु है

Question Number : 220 Question Id : 50389010364 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Let $f(z) = \frac{z^2+1}{z(z-1)}$ then the product of the residues of f at the poles is:

Options :

1. ✖ 1
2. ✖ 0
3. ✖ 2
4. ✔ -2

Question Number : 220 Question Id : 50389010364 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

मान लीजिये की $f(z) = \frac{z^2+1}{z(z-1)}$ है, ध्रुव पर f के अवशेषों के गुणन है –

Options :

1. ✖ 1
2. ✖ 0

3. ✖ 2

4. ✔ -2

Discipline7

Group Number :	12
Group Id :	503890272
Group Maximum Duration :	0
Group Minimum Duration :	0
Show Attended Group? :	No
Edit Attended Group? :	No
Break time :	0
Group Marks :	20
Is this Group for Examiner? :	No

Discipline7

Section Id :	503890408
Section Number :	1
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	20
Number of Questions to be attempted :	20
Section Marks :	20
Enable Mark as Answered Mark for Review and Clear Response :	Yes
Sub-Section Number :	1
Sub-Section Id :	503890481
Question Shuffling Allowed :	Yes

Question Number : 221 Question Id : 50389010365 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Which one of the following in not a convex set?

Options :

1. ✖ $X = \{(x, y) : x \geq 3, y \leq 5\}$

2. ✖ $X = \{(x, y) : x^2 + y^2 < 9\}$

3. ✔ $X = \{(x, y) : 4 \leq x^2 + y^2 \leq 9\}$

4. ✖ $X = \{(x, y) : x^2 + y^2 \leq 9\}$

Question Number : 221 Question Id : 50389010365 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

निम्नलिखित में से कौनसा अवमुख समुच्चय नहीं है?

Options :

1. ✖ $X = \{(x, y) : x \geq 3, y \leq 5\}$

2. ✖ $X = \{(x, y) : x^2 + y^2 < 9\}$

3. ✔ $X = \{(x, y) : 4 \leq x^2 + y^2 \leq 9\}$

4. ✖ $X = \{(x, y) : x^2 + y^2 \leq 9\}$

Question Number : 222 Question Id : 50389010366 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

In hyperplane $2x_1 + 3x_2 + 4x_3 - x_4 = 5$, the point (1, 2, 3, 4) lies in -

Options :

1. ✔ Open half space of type $cx > z$
2. ✖ Open half space of type $cx < z$
3. ✖ Closed half space of type $cx \leq z$
4. ✖ Closed half space of type $cx \geq z$

Question Number : 222 Question Id : 50389010366 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

अधिसमतल $2x_1 + 3x_2 + 4x_3 - x_4 = 5$ में, बिंदु (1, 2, 3, 4) उपस्थित है –

Options :

1. ✔ प्रकार $cx > z$ का विवृत अर्ध समष्टि
2. ✖ प्रकार $cx < z$ का विवृत अर्ध समष्टि
3. ✖ प्रकार $cx \leq z$ का संवृत अर्ध समष्टि
4. ✖ प्रकार $cx \geq z$ का संवृत अर्ध समष्टि

Question Number : 223 Question Id : 50389010367 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

The number of basic solution to the system -
$3x_1 + 4x_2 + 3x_3 + 8x_4 = 7$
$2x_1 - 3x_2 + 2x_3 - 6x_4 = 13$ is

Options :

1. ✖ 12
2. ✔ 4
3. ✖ 9

4. ✖ 6

Question Number : 223 Question Id : 50389010367 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

दिए गए प्रणाली -

$3x_1 + 4x_2 + 3x_3 + 8x_4 = 7$

$2x_1 - 3x_2 + 2x_3 - 6x_4 = 13$

के सामान्य हलों की संख्या है –

Options :

1. ✖ 12
2. ✔ 4
3. ✖ 9
4. ✖ 6

Question Number : 224 Question Id : 50389010368 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

If a constraint is multiplied by a non-zero constant of a L.P.P, then the solution

Options :

1. ✔ Does not change with original solution
2. ✖ is increased by addition of that non-zero constant
3. ✖ is increased by multiplication of that non-zero constant
4. ✖ is decreased by subtraction of that non-zero constant

Question Number : 224 Question Id : 50389010368 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

यदि रैखिक प्रोग्रामन समस्या के एक व्यवरोध को एक गैर-शुन्य अचर से गुणा किया जाए, तो पाया गया हल –

Options :

1. ✔ मूल हल के साथ नहीं बदलता है
2. ✖ उस गैर-शून्य अचर के योग की मान के सामान बढ़ जाती है
3. ✖ उस गैर-शून्य अचर के गुणन की मान के सामान बढ़ जाति है
4. ✖ उस गैर-शून्य अचर के घटाव की मान के सामान घट जाती है

Question Number : 225 Question Id : 50389010369 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

For a L.P.P, Minimise
$z = x_1 + 5x_2 - 3x_3$,
Subjected to
$2x_1 + x_2 + x_3 = 5$,
$3x_1 - x_2 + 4x_3 = 5$,
$x_1, x_2, x_3 \geq 0$,
the solution (1, 2, 1) is –

Options :

1. ✖ A basic but not feasible solution
2. ✖ A basic feasible solution
3. ✔ A feasible but not basic solution
4. ✖ Neither basic nor feasible solution

Question Number : 225 Question Id : 50389010369 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

निम्नलिखित रैखिक प्रोग्रामन समस्या पर विचार करें - ,
निम्न व्यवरोधों के अंतर्गत
$2x_1 + x_2 + x_3 = 5$,
$3x_1 - x_2 + 4x_3 = 5$,
$x_1, x_2, x_3 \geq 0$,
$z = x_1 + 5x_2 - 3x_3$, का न्यूनतम मान ज्ञात कीजिये
इस समस्या का हल (1, 2, 1) है –

Options :

1. ✖ एक आधारी हल किन्तु सुसंगत हल नहीं
2. ✖ एक आधारी सुसंगत हल
3. ✔ एक सुसंगत हल किन्तु आधारी हल नहीं
4. ✖ ना ही आधारी हल और ना ही सुसंगत हल

Question Number : 226 Question Id : 50389010370 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

The solution (1, 0, 1) to the system
$x_1 + x_2 + x_3 = 2$, $x_1 - 3x_2 + x_3 = 2$,
$2x_1 + 3x_2 + 4x_3 = 6$ is

Options :

1. ✔ A basic feasible solution
2. ✖ Not a basic solution
3. ✖ A basic but not feasible solution
4. ✖ A non-degenerate basic feasible solution

Question Number : 226 Question Id : 50389010370 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

दिए गए निकाय –
$x_1 + x_2 + x_3 = 2$, $x_1 - 3x_2 + x_3 = 2$,
$2x_1 + 3x_2 + 4x_3 = 6$
का हल (1, 0, 1) –

Options :

1. ✔ एक आधारी सुसंगत हल है
2. ✖ एक आधारी हल नहीं है

3. ✖ एक आधारी हल है किन्तु सुसंगत हल नहीं
4. ✖ एक अनपभ्रष्ट आधारी सुसंगत हल है

Question Number : 227 Question Id : 50389010371 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

The minimum cost of the assignment problem:

12	24	15
23	18	24
30	14	28

is -

Options :

1. ✖ 52
2. ✖ 45
3. ✖ 60
4. ✔ 50

Question Number : 227 Question Id : 50389010371 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

नियतन समस्या

12	24	15
23	18	24
30	14	28

का न्यूनतम मूल्य है –

Options :

1. ✖ 52
2. ✖ 45
3. ✖ 60

4. ✔ 50

Question Number : 228 Question Id : 50389010372 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

The optimal value of the objective function of the L.P.P,
Min $z = 5x_1 - 2x_2$;
subjected to $2x_1 + 3x_2 \geq 1$
$x_1, x_2 \geq 0$ is-

Options :

1. ✖ $-\frac{4}{3}$

2. ✖ $\frac{5}{2}$

3. ✖ 0

4. ✔ $-\frac{2}{3}$

Question Number : 228 Question Id : 50389010372 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

दिए गए रैखिक प्रोग्रामन समस्या पर विचार करें –

निम्न व्यवरोधों के अंतर्गत

$2x_1 + 3x_2 \geq 1$

$x_1, x_2 \geq 0$

$z = 5x_1 - 2x_2$ का न्यूनतम मान का ज्ञात करें –

Options :

1. ✖ $-\frac{4}{3}$

2. ✖ $\frac{5}{2}$

3. ✖ 0

4. ✔ $-\frac{2}{3}$

Question Number : 229 Question Id : 50389010373 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

The pay - off matrix for a strictly determinable game is -

b	5	2
-1	b	-8
-2	3	b

The value of b is -

Options :

1. ✔ $-1 \leq b \leq 2$
2. ✖ $0 \leq b \leq 2$
3. ✖ $-2 \leq b \leq 2$
4. ✖ $-8 \leq b \leq 5$

Question Number : 229 Question Id : 50389010373 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

एक कड़ाई से निर्धारित खेल का भुगतान आव्यूह है –

b	5	2
-1	b	-8
-2	3	b

b का मान है –

Options :

1. ✔ $-1 \leq b \leq 2$
2. ✖ $0 \leq b \leq 2$
3. ✖ $-2 \leq b \leq 2$
4. ✖ $-8 \leq b \leq 5$

Question Number : 230 Question Id : 50389010374 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Which one of the following is not a non-degenerate basic solution in a system of 2 equations with 4 unknowns?

Options :

1. ✖ (10, - 42, 0, 0)
2. ✖ (0, 22, - 43, 0)
3. ✔ (0, 0, - 8, 0)
4. ✖ (7, 0, - 9, 0)

Question Number : 230 Question Id : 50389010374 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option

Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

निम्नलिखित में से कौनसा 4 चर वाले दो समीकरणों का अनपभ्रष्ट आधारी सुसंगत हल नहीं हो सकता?

Options :

1. ✖ (10, - 42, 0, 0)
2. ✖ (0, 22, - 43, 0)
3. ✔ (0, 0, - 8, 0)
4. ✖ (7, 0, - 9, 0)

Question Number : 231 Question Id : 50389010375 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

If A = [a, b] be any usual metric in R then A^o (interior of A) equals to-

Options :

1. ✖ [a, b]
2. ✖ [a, b)
3. ✔ (a, b)
4. ✖ (a, b]

Question Number : 231 Question Id : 50389010375 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

यदि A = [a, b], R में एक सामान्य मीट्रिक हो तो A^o (A का आतंरिक) है –

Options :

1. ✖ [a, b]
2. ✖ [a, b)
3. ✔ (a, b)
4. ✖ (a, b]

Question Number : 232 Question Id : 50389010376 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

In a metric space (X, d), A be a metric space, then the largest open subset of A^C (complement of A) is

Options :

1. ✖ Interior of A
2. ✔ Exterior of A
3. ✖ Boundary of A
4. ✖ Closure of A

Question Number : 232 Question Id : 50389010376 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

यदि मीट्रिक स्थान (X, d) में A एक मीट्रिक स्थान हो, तो A^C (A का पूरक) का सबसे बड़ा खुला उप-समुच्चय है –

Options :

1. ✖ A का आतंरिक भाग
2. ✔ A का बाहरी भाग
3. ✖ A की सीमा
4. ✖ A के समीप

Question Number : 233 Question Id : 50389010377 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

If there are two subsets A and B of a metric space (X, d), then which of the following is false?

Options :

1. ✖ $(A^\circ)^\circ = A^\circ$

2. ✖ $(A \cap B)^\circ = A^\circ \cap B^\circ$

3. ✔ $(A \cup B)^\circ = A^\circ \cup B^\circ$

4. ✖ $A \subseteq B \Rightarrow A^\circ \subseteq B^\circ$

Question Number : 233 Question Id : 50389010377 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

यदि A और B दोनों उपसमुच्चय हो मीट्रिक स्थान (X, d) में, तो निम्नलिखित में से कौनसा असत्य है?

Options :

1. ✖ $(A^\circ)^\circ = A^\circ$

2. ✖ $(A \cap B)^\circ = A^\circ \cap B^\circ$

3. ✔ $(A \cup B)^\circ = A^\circ \cup B^\circ$

4. ✖ $A \subseteq B \Rightarrow A^\circ \subseteq B^\circ$

Question Number : 234 Question Id : 50389010378 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

In a metric space (X, d), A be any subset. A point $x \in X$ is called a limit point of A, if for every open ball B (X, r)-

1. $B(x ; r) \cap (A - \{x\}) \neq \phi$
2. $(B(x ; r) \cap A) - \{x\} \neq \phi$
3. $(B(x ; r) - \{x\}) \cap A \neq \phi$

Options :

1. ✖ Only 1
2. ✖ Only 2 and 3
3. ✖ Only 1 and 3

4. ✔ 1, 2 and 3

Question Number : 234 Question Id : 50389010378 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

मान लीजिए की मीट्रिक स्थान (X, d) में A एक उपसमुच्चय है| एक बिंदु $x \in X$ को A का सीमांक कहा जाता है, यदि प्रत्येक विवृत गोलक B (X, r) के लिए –

1. $B(x ; r) \cap (A - \{x\}) \neq \phi$ हो तो
2. $(B(x ; r) \cap A) - \{x\} \neq \phi$ हो तो
3. $(B(x ; r) - \{x\}) \cap A \neq \phi$ हो तो

Options :

1. ✖ केवल 1
2. ✖ केवल 2 और 3
3. ✖ केवल 1 और 3
4. ✔ 1, 2 और 3

Question Number : 235 Question Id : 50389010379 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

In any metric space (X, d), if A be any subset, then $A \subset X$ is closed if and only if

1. $A = A^{\circ}$
2. $A = \overline{A}$
3. $A \subset A^{\circ}$

Options :

1. ✖ Only 1
2. ✔ Only 2
3. ✖ Only 3
4. ✖ Only 1 and 3

Question Number : 235 Question Id : 50389010379 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

कोई मीट्रिक स्थान (X, d) में मान लिजिए की A एक उपसमुच्चय है, तो $A \subset x$ संवृत हो पाएगा यदि और केवल यदि –

1. $A = A^{\circ}$ हो तो
2. $A = \bar{A}$ हो तो
3. $A \subset A^{\circ}$ हो तो

Options :

1. ✖ केवल 1
2. ✔ केवल 2
3. ✖ केवल 3
4. ✖ केवल 1 और 3

Question Number : 236 Question Id : 50389010380 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

If a particle is thrown vertically upwards with a velocity u and v be its velocity at a time t at a height h above the starting point, then which of the following is not true?

1. $h = ut - \frac{1}{2} gt^2$
2. $v^2 - u^2 = 2gh$
3. $v = u - gt$

Options :

1. ✖ Only 1 and 2
2. ✔ Only 2
3. ✖ Only 3
4. ✖ Only 2 and 3

Question Number : 236 Question Id : 50389010380 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

यदि एक कण को u गति के साथ लंबवत ऊपर की फेंका जाता है और समय t पर उंचाई h में उसकी गति v हो, तो निम्नलिखित में से कौनसा असत्य है?

1. $h = ut - \frac{1}{2}gt^2$
2. $v^2 - u^2 = 2gh$
3. $v = u - gt$

Options :

1. ✖ केवल 1 और 2
2. ✔ केवल 2
3. ✖ केवल 3
4. ✖ केवल 2 और 3

Question Number : 237 Question Id : 50389010381 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

If a particle describes cardioid r = a (1 - cosθ) under a force to the pole then the law of force (P) is.

Options :

1. ✖ $P \propto \frac{1}{r^3}$

2. ✔ $P \propto \frac{1}{r^4}$

3. ✖ $P \propto \frac{1}{r^2}$

4. ✖ $P \propto \frac{1}{r^5}$

Question Number : 237 Question Id : 50389010381 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

यदि एक कण ध्रुव पर बल के तहत कार्डिऑइड $r = a(1 - \cos\theta)$ का वर्णन करता है तो बल का नियम (p) होगा –

Options :

1. ✖ $P \propto \frac{1}{r^3}$

2. ✔ $P \propto \frac{1}{r^4}$

3. ✖ $P \propto \frac{1}{r^2}$

4. ✖ $P \propto \frac{1}{r^5}$

Question Number : 238 Question Id : 50389010382 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

A stone is thrown horizontally with a velocity $\sqrt{2gh}$ from the top of a tower of height h. At what distance will it strike the horizontal ground from the foot of the tower?

Options :

1. ✖ 3h

2. ✖ h

3. ✔ 2h
4. ✖ 6h

Question Number : 238 Question Id : 50389010382 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

एक पत्थर को क्षैतिज रूप से $\sqrt{2gh}$ वेग के साथ h ऊंचाई के एक टॉवर के शीर्ष से फेंका जाता है। यह मीनार के पैर से क्षैतिज भूमि पर कितनी दूरी पर टकराएगा?

Options :

1. ✖ 3h
2. ✖ h
3. ✔ 2h
4. ✖ 6h

Question Number : 239 Question Id : 50389010383 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

A particle describes an ellipse under a force which is always directed towards the major axis. The law of force (F) is

Options :

1. ✔ $F \propto \frac{1}{y^3}$
2. ✖ $F \propto \frac{1}{x^2}$
3. ✖ $F \propto \frac{1}{x^3}$
4. ✖ $F \propto y^2$

Question Number : 239 Question Id : 50389010383 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

एक कण दीर्घ अक्ष की ओर निर्देशित बल के तहत एक दीर्घवृत्त का वर्णन करता है | बल का नियम (F) होगा –

Options :

1. ✔ $F \propto \frac{1}{y^3}$

2. ✖ $F \propto \frac{1}{x^2}$

3. ✖ $F \propto \frac{1}{x^3}$

4. ✖ $F \propto y^2$

Question Number : 240 Question Id : 50389010384 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

If a particle describes a curve $r = ae^{k\theta}$ under a central force towards the pole, then the law of force (P) is -

Options :

1. ✖ $P \propto \frac{1}{r^2}$

2. ✖ $P \propto \frac{1}{r}$

3. ✖ $P \propto r^3$

4. ✔ $P \propto \frac{1}{r^3}$

Question Number : 240 Question Id : 50389010384 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

यदि एक कण ध्रुव पर केन्द्रीय बल के तहत वक्र $r = ae^{k\theta}$ का वर्णन करता है, तो बल का नियम (P) है –

Options :

1. ✖ $P \propto \frac{1}{r^2}$

2. ✖ $P \propto \frac{1}{r}$

3. ✖ $P \propto r^3$

4. ✔ $P \propto \frac{1}{r^3}$

Discipline8

Group Number : 13

Group Id : 503890273

Group Maximum Duration :	0
Group Minimum Duration :	0
Show Attended Group? :	No
Edit Attended Group? :	No
Break time :	0
Group Marks :	20
Is this Group for Examiner? :	No

Discipline8

Section Id :	503890409
Section Number :	1
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	20
Number of Questions to be attempted :	20
Section Marks :	20
Enable Mark as Answered Mark for Review and Clear Response :	Yes
Sub-Section Number :	1
Sub-Section Id :	503890482
Question Shuffling Allowed :	Yes

Question Number : 241 Question Id : 50389010385 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

The distance s of a particle moving in a straight line in terms of time t is given by:

$s = a \cos (nt + \epsilon)$, where a, n, t are constant.
Then the retardation is proportional to:

Options :

1. ✖ s^2

2. ✖ $\frac{1}{s}$

3. ✖ $\frac{1}{s^2}$

4. ✔ s

Question Number : 241 Question Id : 50389010385 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

समय t के संदर्भ में एक सीधी रेखा में गतिमान एक कण की दूरी s दी गई है:

$s = a \cos (nt + \epsilon)$ जहां a, n, t स्थिर हैं।
तब मंदन समानुपाती होती है:

Options :

1. ✖ s^2

2. ✖ $\frac{1}{s}$

3. ✖ $\frac{1}{s^2}$

4. ✔ s

Question Number : 242 Question Id : 50389010386 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

If a particle thrown vertically upwards takes t sec to rise a height h and t’ sec in the subsequent time to reach the ground again, then:

Options :

1. ✔ $h = \frac{1}{2}gtt'$

2. ✖ $h = \frac{1}{2}g(t+t')^2$

3. ✖ $h = \frac{1}{2}g\,(t+t')$

4. ✖ $h = u(t+t') - \frac{1}{2}\,g(t+t')^2$

Question Number : 242 Question Id : 50389010386 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

यदि लंबवत ऊपर की ओर फेंका गया एक कण ऊंचाई h में पहुंचने के लिए t सेकंड लेता है और जमीन पर वापस पहुंचने में t' सेकंड लेता है, तब:

Options :

1. ✔ $h = \frac{1}{2}gtt'$

2. ✖ $h = \frac{1}{2}g(t+t')^2$

3. ✖ $h = \frac{1}{2}g\,(t+t')$

4. ✖ $h = u(t+t') - \frac{1}{2}\,g(t+t')^2$

Question Number : 243 Question Id : 50389010387 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

For rectilinear motion of a particle, if an impulse I changes its velocity from u to v and E is the change of kinetic energy, then:

Options :

1. ✖ $E = I\left(\frac{u + 2v}{3}\right)$

2. ✖ $E = I\left(\frac{2u + 3v}{5}\right)$

3. ✔ $E = I\left(\frac{u + v}{2}\right)$

4. ✖ $E = I\left(\frac{3u + 2v}{5}\right)$

Question Number : 243 Question Id : 50389010387 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

एक कण की सीधी गति के लिए, यदि आवेग I अपने वेग को u से v में बदलता है और E गतिज ऊर्जा का परिवर्तन है, तो:

Options :

1. ✖ $E = I\left(\frac{u + 2v}{3}\right)$

2. ✖ $E = I\left(\frac{2u + 3v}{5}\right)$

3. ✔ $E = I\left(\frac{u+v}{2}\right)$

4. ✖ $E = I\left(\frac{3u+2v}{5}\right)$

Question Number : 244 Question Id : 50389010388 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

If a particle describes a curve whose equation is $\frac{a}{r} = \theta^2 + b$ under a force to the pole, then the law of force (P) is –

Options :

1. ✖ $P \propto \frac{2a+r}{r^3}$

2. ✔ $P \propto \frac{2r+a}{r^3}$

3. ✖ $P \propto \frac{2a+r}{r^2}$

4. ✖ $P \propto \frac{a}{r^3}$

Question Number : 244 Question Id : 50389010388 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

यदि एक कण ध्रुव पर बल के तहत एक वक्र का वर्णन करता है जिसका समीकरण है $\frac{a}{r} = \theta^2 + b$, तो बल का नियम (p) होगा-

Options :

1. ✖ $P \propto \frac{2a + r}{r^3}$

2. ✔ $P \propto \frac{2r + a}{r^3}$

3. ✖ $P \propto \frac{2a + r}{r^2}$

4. ✖ $P \propto \frac{a}{r^3}$

Question Number : 245 Question Id : 50389010389 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

If a particle moves in a straight line according to the law x = a sin(μt + ϵ), then the velocity V is related by:

Options :

1. ✖ $V^2 = \mu(x^2 - a^2)$

2. ✔ $V^2 = \mu^2(a^2 - x^2)$

3. ✖ $V^2 = \mu(a^2 - x^2)$

4. ✖ $V^2 = \mu^2(x^2 - a^2)$

Question Number : 245 Question Id : 50389010389 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

यदि कोई कण नियम $x = a \sin(\mu t + \epsilon)$, के अनुसार एक सीधी रेखा में गति करता है, तो वेग V है:

Options :

1. ✖ $V^2 = \mu(x^2 - a^2)$

2. ✔ $V^2 = \mu^2(a^2 - x^2)$

3. ✖ $V^2 = \mu(a^2 - x^2)$

4. ✖ $V^2 = \mu^2(x^2 - a^2)$

Question Number : 246 Question Id : 50389010390 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Which of the following is incorrect in (X, 3)?

Note: For this question, discrepancy is found in question/answer. So,this question is ignored for all candidates.

Options :

1. A subset A of compact space X is compact
2. If X = R and T is usual topology then A = (0, 1) is compact
3. Continuous image of a compact space is compact
4. Closed subset and compact space is compact

Question Number : 246 Question Id : 50389010390 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

निम्नलिखित में से कौन (X, 3) में गलत है?

Note: For this question, discrepancy is found in question/answer. So,this question is ignored for all candidates.

Options :

1. संहत समष्टि X का एक ऊप समुच्चय A संहत है
2. यदि X = R और T सामान्य सांस्थिति है तो A = (0, 1) संहत है
3. संहत समष्टि की सतत छवि संहत होती है
4. संवृत ऊप समुच्चय और संहत समष्टि, संहत है

Question Number : 247 Question Id : 50389010391 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

A one to one continuous map of compact space X onto a Hausdorff space Y is _____

1. Open map
2. Not an open map
3. Not a homeomorphism

Options :

1. ✖ Only 1
2. ✖ Only 2
3. ✖ Only 2 and 3
4. ✔ Neither 1 nor 2 nor 3

Question Number : 247 Question Id : 50389010391 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

हौसडॉर्फ समष्टि Y पर संहत समष्टि X का एक निरंतर नक्शा ____ है

1. खुला नक्शा

2. खुला नक्शा नहीं
3. एक होमियोमोर्फिज्म नहीं

Options :

1. ✖ केवल 1
2. ✖ केवल 2
3. ✖ केवल 2 और 3
4. ✔ न तो 1 और न ही 2 और न ही 3

Question Number : 248 Question Id : 50389010392 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Which one of the following is not true?

Options :

1. ✖ Every co-finite topological space is infinite
2. ✖ A closed and bounded subset of $\overline{R}$ is compact
3. ✔ An infinite discrete space is compact
4. ✖ A closed subset of a compact space is compact

Question Number : 248 Question Id : 50389010392 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

निम्नलिखित में से कौन सा सत्य नहीं है?

Options :

1. ✖ प्रत्येक सह परिमित- सांस्थितिक समष्टि अनंत है

2. ✖ $\bar{R}$ का एक बंद और परिबद्ध उपसमुच्चय संहत है

3. ✔ एक अनंत असतत स्थान संहत है

4. ✖ संहत समष्टि का एक बंद उपसमुच्चय संहत होता है

Question Number : 249 Question Id : 50389010393 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Every topological space (X, 3) is compact if _____

Options :

1. ✖ X is not finite
2. ✖ 3 is not finite
3. ✔ Every open cover of X is reducible to finite sub cover
4. ✖ X is not compact at each points

Question Number : 249 Question Id : 50389010393 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

प्रत्येक सांस्थितिक समष्टि (X, 3) संहत होता है यदि ___

Options :

1. ✖ X परिमित नहीं हो तो
2. ✖ 3 परिमित नहीं हो तो
3. ✔ X का प्रत्येक खुला आवरण, परिमित उप-आवरण के लिए रूपांतरित होने योग्य है
4. ✖ X प्रत्येक बिंदु पर संहत नहीं है

Question Number : 250 Question Id : 50389010394 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

If a sequence converges to a point x_0, then the set A consisting of the point x_{n0} and x_n $(n = 1, 2, \ldots\ldots)$ is –

Note: For this question, discrepancy is found in question/answer. So,this question is ignored for all candidates.

Options :

1. Not compact
2. A is not an open cover
3. Compact
4. A has infinite sub cover

Question Number : 250 Question Id : 50389010394 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

यदि कोई अनुक्रम बिंदु x_0 में परिवर्तित होता है, तो बिंदु x_{n0} और x_n और $(n = 1, 2, \ldots\ldots)$ से मिलकर बना समुच्चय A है -

Note: For this question, discrepancy is found in question/answer. So,this question is ignored for all candidates.

Options :

1. संहत नहीं
2. A विवृत आवरण नहीं है
3. संहत
4. A के पास अनंत उप-आवरण है

Question Number : 251 Question Id : 50389010395 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Two linearly independent solutions of the differential equation $y'' - 2y' + y = 0$ are $y_1 = e^x$ and $y_2 = xe^x$ then a particular solution of $y'' - 2y' + y = e^x \sin x$ is:

Options :

1. ✖ $y_2 (x \cos x - \sin x) - y_1 \cos x$

2. ✖ $y_1 (x \cos x + \sin x) + y_2 \sin x$

3. ✖ $y_1 (x \cos x + \sin x) - y_2 (\cos x - x \sin x)$

4. ✔ $y_1 (x \cos x - \sin x) - y_2 \cos x$

Question Number : 251 Question Id : 50389010395 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

अंतर समीकरण के दो रैखिक रूप से स्वतंत्र हल $y'' - 2y' + y = 0$ हैं, जहां $y_1 = e^x$ तथा $y_2 = xe^x$ है, फिर $y'' - 2y' + y = e^x \sin x$ का एक विशेष हल होगा :

Options :

1. ✖ $y_2 (x \cos x - \sin x) - y_1 \cos x$

2. ✖ $y_1 (x \cos x + \sin x) + y_2 \sin x$

3. ✖ $y_1 (x \cos x + \sin x) - y_2 (\cos x - x \sin x)$

4. ✔ $y_1 (x \cos x - \sin x) - y_2 \cos x$

Question Number : 252 Question Id : 50389010396 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Let $y = x$, $y = e^{-x}$ be two linearly independent solution of the corresponding homogeneous equation of $(1+x)\frac{d^2y}{dx^2} + x\frac{dy}{dx} - y = (1+x)^2$. If $y_p = u(x)x + v(x)e^{-x}$ be the particular solution of the non-homogenous equation, then:-

Options :

1. ✖ $u(x) = x^2$, $v(x) = e^x (1 - x^2)$

2. ✔ $u(x) = x$, $v(x) = e^x (1 - x)$

3. ✖ $u(x) = x$, $v(x) = e^x (1 + x)$

4. ✖ $u(x) = -x^3$, $v(x) = e^x (1 + 2x)$

Question Number : 252 Question Id : 50389010396 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

मान लीजिये कि $y = x$, $y = e^{-x}$, संबंधित समरूप समीकरण $(1+x)\frac{d^2y}{dx^2} + x\frac{dy}{dx} - y = (1+x)^2$ के दो रैखिक रूप से स्वतंत्र समाधान है | यदि $y_p = u(x)x + v(x)e^{-x}$ असमरूप समीकरण का विशेष हल हो, तो- :

Options :

1. ✖ $u(x) = x^2, v(x) = e^x (1 - x^2)$

2. ✔ $u(x) = x, v(x) = e^x (1 - x)$

3. ✖ $u(x) = x, v(x) = e^x (1 + x)$

4. ✖ $u(x) = -x^3, v(x) = e^x (1 + 2x)$

Question Number : 253 Question Id : 50389010397 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

The general solution of $\frac{d^2y}{dx^2} = \sqrt{1 + \left(\frac{dy}{dx}\right)^2}$ is (a, b are arbitrary constants)

Note: For this question, discrepancy is found in question/answer. So,this question is ignored for all candidates.

Options :

1. $y = \cos(x + a) + bx$
2. $y = \cos(x + a) + b$
3. $y = \tan(x + a) + b$
4. $y = \sin(x + a) + bx$

Question Number : 253 Question Id : 50389010397 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

$\frac{d^2y}{dx^2} = \sqrt{1 + \left(\frac{dy}{dx}\right)^2}$ का व्यापक हल है (a, b स्वेच्छ स्थिरांक हैं)

Note: For this question, discrepancy is found in question/answer. So,this question is ignored for all candidates.

Options :

1. $y = \cos(x + a) + bx$
2. $y = \cos(x + a) + b$
3. $y = \tan(x + a) + b$
4. $y = \sin(x + a) + bx$

Question Number : 254 Question Id : 50389010398 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

For the differential equation $(2x^2 + 3x)\,y'' + (6x + 3)\,y' + 2y = (x + 1)\,e^x$, which of the following is correct?

Options :

1. ✔ The equation is exact and its solution is $y(2x + 3) = e^x + c_1 \log x + c_2$

2. ✖ The equation is not exact and its solution is $y^2\,(2x - 3) = y\,e^x + c_1 \log x + c_2$

3. ✖ The equation is exact and its solution is $y^2\,(2x - 3) = y\,e^x + c_1 \log x + c_2$

4. ✖ The equation is not exact and its solution is $y\,(2x + 3) = e^x + c_1 \log x + c_2$

Question Number : 254 Question Id : 50389010398 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

अवकल समीकरण $(2x^2 + 3x)\,y'' + (6x + 3)\,y' + 2y = (x + 1)\,ex$ के लिए, निम्नलिखित में से कौन सा सही है?

Options :

1. ✔ समीकरण सटीक है और इसका हल $y(2x + 3) = e^x + c_1 \log x + c_2$ है

2. ✖ समीकरण सटीक नहीं है और इसका हल $y^2 (2x - 3) = y e^x + c_1 \log x + c_2$ है

3. ✖ समीकरण सटीक है और इसका हल $y^2 (2x - 3) = y e^x + c_1 \log x + c_2$ है

4. ✖ समीकरण सटीक नहीं है और इसका हल $y (2x + 3) = e^x + c_1 \log x + c_2$ है

Question Number : 255 Question Id : 50389010399 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

A solution curve of the differential equation $(x^2 + xy + 4x + 2y + 4)\frac{dy}{dx} - y^2 = 0,\ x > 0,$ passes through the point (1, 3). Then the solution curve –

Options :

1. ✖ Intersects $y = x + 2$ exactly at two points

2. ✖ Intersects $y = (x + 2)^2$ exactly at four points

3. ✔ Intersects $y = x + 2$ exactly at one point

4. ✖ Intersects $y = (x + 2)^2$ exactly at six points

Question Number : 255 Question Id : 50389010399 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option

Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

अवकल समीकरण $(x^2 + xy + 4x + 2y + 4)\frac{dy}{dx} - y^2 = 0,\ x > 0,$ का एक हल वक्र बिंदु $(1, 3)$ से होकर गुजरता है। फिर हल वक्र –

Options :

1. ✖ $y = x + 2$ को ठीक दो बिंदुओं पर काटता है

2. ✖ $y = (x + 2)^2$ को ठीक चार बिंदुओं पर काटता है

3. ✔ $y = x + 2$ को ठीक एक बिंदु पर काटता है

4. ✖ $y = (x + 2)^2$ को ठीक छह बिंदुओं पर काटता है

Question Number : 256 Question Id : 50389010400 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

If $x^h\ y^k$ be the integrating factor of $(y^3 - 2y\ x^2)\ dx + (2xy^2 - x^3)\ dy = 0$, then the value of (h, k) is:

Options :

1. ✖ (-2, 3)
2. ✖ (2 , -1)
3. ✔ (1, 1)
4. ✖ (1, -2)

Question Number : 256 Question Id : 50389010400 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

यदि $(y^3 - 2y\,x^2)\,dx + (2xy^2 - x^3)\,dy = 0$ का समाकलन गुणक हो, $x^h\,y^k$ हो, तो (h, k) का मान है-

Options :

1. ✖ (-2, 3)
2. ✖ (2 , -1)
3. ✔ (1, 1)
4. ✖ (1, -2)

Question Number : 257 Question Id : 50389010401 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

The general solution of $\frac{d^2y}{dx^2} = \left(\frac{dy}{dx}\right)^3 + \frac{dy}{dx}$ is (a, b are arbitrary constants).

Options :

1. ✖ log cos (y + a) = x + b
2. ✖ log sin (x + a) = y + b
3. ✔ log sin (y + a) = x + b
4. ✖ log cos (x + a) = y + b

Question Number : 257 Question Id : 50389010401 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

$\frac{d^2y}{dx^2} = \left(\frac{dy}{dx}\right)^3 + \frac{dy}{dx}$ का व्यापक हल है (a, b स्वेच्छ स्थिरांक हैं)

Options :

1. ✖ log cos (y + a) = x + b
2. ✖ log sin (x + a) = y + b

3. ✔ log sin (y + a) = x + b

4. ✖ log cos (x + a) = y + b

Question Number : 258 Question Id : 50389010402 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

The orthogonal trajectories of the system of coaxial circles $x^2 + y^2 + 2\lambda x + c = 0$ is (taking μ as parameter)

Options :

1. ✖ $x^2 + y^2 - 2\mu xy + c = 0$

2. ✔ $x^2 + y^2 + 2\mu y - c = 0$

3. ✖ $x^2 + y^2 + 2\mu y + cx = 0$

4. ✖ $x^2 + y^2 - 2\mu x + cy = 0$

Question Number : 258 Question Id : 50389010402 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

समाक्षीय वृत्त $x^2 + y^2 + 2\lambda x + c = 0$ की प्रणाली के लंबकोणीय संछेदी है (μ को प्राचल के रूप में लेते हुए)

Options :

1. ✖ $x^2 + y^2 - 2\mu xy + c = 0$

2. ✔ $x^2 + y^2 + 2\mu y - c = 0$

3. ✖ $x^2 + y^2 + 2\mu y + cx = 0$

4. ✖ $x^2 + y^2 - 2\mu x + cy = 0$

Question Number : 259 Question Id : 50389010403 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

The complete primitive of $p^2 + px + py + xy = 0$, where $p \equiv \frac{dy}{dx}$, is:

Options :

1. ✔ $(2y + x^2 - c)(x + \log y - c) = 0$

2. ✖ $(2y - x^2 - c)(x - y \log x - c) = 0$

3. ✖ $(y + x^2 - cxy)(x^3 + 2 \log y - c) = 0$

4. ✖ $(2y^2 - x^2 - c)(x - y \log y - c) = 0$

Question Number : 259 Question Id : 50389010403 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

$p^2 + px + py + xy = 0$ का पूर्ण व्यापक हल (primitive), जहाँ $p \equiv \frac{dy}{dx}$, है:

Options :

1. ✔ $(2y + x^2 - c)(x + \log y - c) = 0$

2. ✖ $(2y - x^2 - c)(x - y \log x - c) = 0$

3. ✖ $(y + x^2 - cxy)(x^3 + 2 \log y - c) = 0$

4. ✖ $(2y^2 - x^2 - c)(x - y \log y - c) = 0$

Question Number : 260 Question Id : 50389010404 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

The three linearly independent solutions of $x^3\frac{d^3y}{dx^3} - 6x\frac{dy}{dx} + 12y = 0$ of the form $y = x^r$ is –

Options :

1. ✖ x, x^2, x^3

2. ✔ x^2, x^3, x^{-2}

3. ✖ $1, x, x^2$

4. ✖ $1, x^2, x^{-2}$

Question Number : 260 Question Id : 50389010404 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

$y = x^r$ के रूप में, $x^3\frac{d^3y}{dx^3} - 6x\frac{dy}{dx} + 12y = 0$ के तीन रैखिक रूप से स्वतंत्र हल है -

Options :

1. ✖ x, x^2, x^3

2. ✔ x^2, x^3, x^{-2}

3. ✖ $1, x, x^2$

4. ✖ $1, x^2, x^{-2}$

Discipline9

Group Number :	14
Group Id :	503890274
Group Maximum Duration :	0
Group Minimum Duration :	0
Show Attended Group? :	No
Edit Attended Group? :	No
Break time :	0
Group Marks :	20
Is this Group for Examiner? :	No

Discipline9

Section Id :	503890410
Section Number :	1
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	20
Number of Questions to be attempted :	20
Section Marks :	20
Enable Mark as Answered Mark for Review and Clear Response :	Yes
Sub-Section Number :	1
Sub-Section Id :	503890483
Question Shuffling Allowed :	Yes

Question Number : 261 Question Id : 50389010405 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

If in the first hundred natural numbers, x be one of them, then the probability that $x + \frac{100}{x}$ is greater than 50 is -

Options :

1. ✖ $\frac{9}{11}$

2. ✔ $\frac{11}{20}$

3. ✖ $\frac{13}{20}$

4. ✖ $\frac{11}{21}$

Question Number : 261 Question Id : 50389010405 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

यदि प्रथम 100 प्राकृत संख्याओं में से एक संख्या x हो, तो $x + \frac{100}{x}$, का 50 से अधिक होने की प्रायिकता है –

Options :

1. ✖ $\frac{9}{11}$

2. ✔ $\frac{11}{20}$

3. ✖ $\frac{13}{20}$

4. ✖ $\frac{11}{21}$

Question Number : 262 Question Id : 50389010406 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

If a coin is tossed (m + n) times (where m > n), then the probability of at least m consecutive heads is -

Options :

1. ✖ $\frac{n+1}{2^{n+1}}$

2. ✖ $\frac{m+2}{2^{n+1}}$

3. ✔ $\frac{2+n}{2^{m+1}}$

4. ✖ $\frac{m+1}{2^{m+1}}$

Question Number : 262 Question Id : 50389010406 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

यदि एक सिक्के को (m + n) बार उछाला जाए (जहां m > n है), तो न्यूनतम m बार लगातार चित प्रकट होने की प्रायिकता होगी –

Options :

1. ✖ $\frac{n+1}{2^{n+1}}$

2. ✖ $\frac{m+2}{2^{n+1}}$

3. ✔ $\frac{2+n}{2^{m+1}}$

4. ✖ $\frac{m+1}{2^{m+1}}$

Question Number : 263 Question Id : 50389010407 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

A box contains 2^n tickets among which ${}^nC_i$ bear the number i, (i = 0, 1, 2, ...n). A group of m tickets is drawn. What's the expectation of the sum of the numbers?

Options :

1. ✔ $\frac{mn}{2}$

2. ✖ $\frac{n(m+2)}{2}$

3. ✖ $\frac{n(n+1)}{2}$

4. ✖ $\frac{n}{2}$

Question Number : 263 Question Id : 50389010407 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

एक बक्से में 2^n टिकेट हैं, जिसमे से ${}^nC_i$ में संख्या i, (i = 0, 1, 2, ...n) है | m टिकिटों के समूह को निकाला गया | संख्याओं के योग की प्रत्याशा क्या है?

Options :

1. ✔ $\frac{mn}{2}$

2. ✖ $\frac{n(m+2)}{2}$

3. ✖ $\frac{n(n+1)}{2}$

4. ✖ $\frac{n}{2}$

Question Number : 264 Question Id : 50389010408 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Which one of the following statements is false?

Options :

1. ✖ Data that are on nominal scale are presented using frequency tables
2. ✔ Pie charts are better than bar graphs for comparing relative sizes
3. ✖ The scatter - plot is the basic graphic tool for investigating relationship between two intervals or ratio scaled variables
4. ✖ Means and standard deviation of ordinal data are meaning-less

Question Number : 264 Question Id : 50389010408 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

निम्नलिखित में से कौनसा कथन असत्य है?

Options :

1. ✖ नामित पैमाना (nominal scale) के आंकड़ें बारंबारता सारणी (frequency tables) का उपयोग करके प्रस्तुत किया जाता है
2. ✔ सापेक्ष आकारों की तुलना करने के लिए पाई-चार्ट, दंड आरेख (bar graph) से बेहतर होते हैं
3. ✖ प्रकीर्ण आरेख (scatter-plot) दो अंतरालों या अनुपात मापित चरों के बीच संबंधों की जांच के लिए बुनियादी ग्राफिक उपकरण है
4. ✖ क्रमित आंकड़ों (ordinal data) के माध्यों और मानक विचलन अर्थहीन होते हैं

Question Number : 265 Question Id : 50389010409 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

If random variable X has the probability function $f(x) = \frac{K}{x!}$, $(x = 0, 1, 2, \ldots\ldots)$ the value of K is _____

Options :

1. ✔ $\frac{1}{e}$

2. ✖ e

3. ✖ $1 - \frac{1}{e}$

4. ✖ $e - 1$

Question Number : 265 Question Id : 50389010409 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

यदि यादृच्छिक चर X प्रायिकता फलन $f(x) = \frac{K}{x!}$, $(x = 0, 1, 2, \ldots\ldots)$ है, तो K का मान है–

Options :

1. ✔ $\frac{1}{e}$

2. ✖ e

3. ✖ $1 - \frac{1}{e}$

4. ✖ $e - 1$

Question Number : 266 Question Id : 50389010410 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Which of the following comes under probability distribution?

Options :

1. ✖ $f(x) = \frac{x-2}{2}, x = 1, 2, 3, 4$

2. ✔ $g(x) = \frac{1}{4}, x = 1, 2, 3, 4$

3. ✖ $h(x) = \frac{x^2}{25}, x = 1, 2, 3, 4$

4. ✖ $f(x) = \frac{x-2}{5}, x = 1, 2, 3, 4$

Question Number : 266 Question Id : 50389010410 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

निम्नलिखित में से कौनसा प्रायिकता बंटन के अंतर्गत आएगा?

Options :

1. ✖ $f(x) = \frac{x-2}{2}, x = 1, 2, 3, 4$

2. ✔ $g(x)=\frac{1}{4}, x=1,2,3,4$

3. ✖ $h(x)=\frac{x^2}{25}, x=1,2,3,4$

4. ✖ $f(x)=\frac{x-2}{5}, x=1,2,3,4$

Question Number : 267 Question Id : 50389010411 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

The frequency distribution of the amount of rainfall in December in a certain region for a period of 30 years is given as _____

Rainfall (in inches)	Number of years
2.0 - 4.0	3
4.0 - 6.0	6
6.0 - 8.0	8
8.0 - 10.0	8
10.9 - 12.0	5

The mean amount of rainfall in inches is -

Note: For this question, discrepancy is found in question/answer. So,this question is ignored for all candidates.

Options :

1. 7.30
2. 7.25
3. 7.40
4. 8.40

Question Number : 267 Question Id : 50389010411 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

दिसंबर में एक निश्चित क्षेत्र में 30 वर्षों की अवधि के लिए वर्षा की मात्रा का बारंबारता बंटन इस प्रकार दिया गया है:

वर्षा (में इंच)	वर्षों की संख्या
2.0 - 4.0	3
4.0 - 6.0	6
6.0 - 8.0	8
8.0 - 10.0	8
10.9 - 12.0	5

इंच में वर्षा की माध्य मात्रा है –

Note: For this question, discrepancy is found in question/answer. So,this question is ignored for all candidates.

Options :

1. 7.30
2. 7.25
3. 7.40
4. 8.40

Question Number : 268 Question Id : 50389010412 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

6 coins are tossed 6,400 times. What is the probability of getting 6 heads, x times?

Note: For this question, discrepancy is found in question/answer. So,this question is ignored for all candidates.

Options :

1. $\frac{1}{x} e^{-100x}$

2. e^{-100x}

3. xe^{-100x}

4. $e^{-100} \frac{100x}{x!}$

Question Number : 268 Question Id : 50389010412 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

6 सिक्कों को 6,400 बार उछाला जाता है। x बार, 6 चित प्रकट होने की प्रायिकता क्या होगी?

Note: For this question, discrepancy is found in question/answer. So,this question is ignored for all candidates.

Options :

1. $\frac{1}{x} e^{-100x}$

2. e^{-100x}

3. xe^{-100x}

4. $e^{-100}\frac{100x}{x!}$

Question Number : 269 Question Id : 50389010413 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

If X_1 and X_2 are two independent variables and $Y = a_1 X_1 + a_2 X_2$ then $E(Y)$ is _____

Options :

1. ✔ $a_1 E(X_1) + a_2 E(X_2)$

2. ✖ $a_1 X_1 + a_2 X_2$

3. ✖ $X_1 + X_2$

4. ✖ $a_1 X_2 + a_2 X_1$

Question Number : 269 Question Id : 50389010413 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

यदि X_1 और X_2 दो स्वतंत्र चर हो और $Y = a_1 X_1 + a_2 X_2$ हो, तो $E(Y)$ का मान होगा –

Options :

1. ✔ $a_1 E(X_1) + a_2 E(X_2)$

2. ✖ $a_1 X_1 + a_2 X_2$

3. ✖ $X_1 + X_2$

4. ✖ $a_1 X_2 + a_2 X_1$

Question Number : 270 Question Id : 50389010414 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

A manufacturer of steel blades found 5 percent of its blades defective. He sells blades in packets, each containing 5 blades. The probability that a packet contains one defective blade is

Options :

1. ✖ $e^{-0.25}$

2. ✔ $0.25.e^{-0.25}$

3. ✖ 0.5

4. ✖ 0.25

Question Number : 270 Question Id : 50389010414 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

एक स्टील ब्लेड के निर्माता ने पाया कि उसके 5 प्रतिशत ब्लेड खराब हैं। वह पैकेट में ब्लेड बेचता है और प्रत्येक पैकेट में 5 ब्लेड होते हैं। एक पैकेट में एक खराब ब्लेड होने की प्रायिकता है –

Options :

1. ✖ $e^{-0.25}$

2. ✔ $0.25.e^{-0.25}$

3. ✖ 0.5

4. ✖ 0.25

Question Number : 271 Question Id : 50389010415 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Marks of a chemistry test follow a normal distribution with a mean of 65 and a standard deviation of 12. Approximately what percentage of the students have scored below 50?

Options :

1. ✖ 89 percent
2. ✖ 18 percent
3. ✔ 11 percent
4. ✖ 15 percent

Question Number : 271 Question Id : 50389010415 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

एक रसायन शास्त्र परीक्षण के अंक 65 के माध्य और 12 के मानक विचलन के साथ सामान्य बंटन का पालन करते हैं। लगभग कितने प्रतिशत छात्रों ने 50 से कम अंक प्राप्त किए हैं?

Options :

1. ✖ 89 प्रतिशत
2. ✖ 18 प्रतिशत
3. ✔ 11 प्रतिशत
4. ✖ 15 प्रतिशत

Question Number : 272 Question Id : 50389010416 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Let $\vec{x} = 2\vec{i} + \vec{j} - 2\vec{k}$ and $\vec{y} = \vec{i} + \vec{j}$. If $\vec{z}$ is a vector such that $\vec{x}.\vec{z} = |\vec{z}|, |\vec{z} - \vec{x}| = 2\sqrt{2}$ and the angle between $\vec{x} \times \vec{y}$ and $\vec{z}$ is 30°, then the magnitude of the vector $(\vec{x} \times \vec{y}) \times \vec{z}$ is _____

Options :

1. ✖ $\frac{\sqrt{3}}{2}$

2. ✔ $\frac{3}{2}$

3. ✖ $\frac{1}{2}$

4. ✖ $\frac{3\sqrt{2}}{2}$

Question Number : 272 Question Id : 50389010416 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

मान लीजिये की $\vec{x} = 2\vec{i} + \vec{j} - 2\vec{k}$ और $\vec{y} = \vec{i} + \vec{j}$ है | यदि $\vec{z}$ एक सदिश हो जैसे कि $\vec{x}.\vec{z} = |\vec{z}|, |\vec{z} - \vec{x}| = 2\sqrt{2}$ एवं $\vec{x} \times \vec{y}$ और $\vec{z}$ के बीच का कोण 30° है, तो सदिश $(\vec{x} \times \vec{y}) \times \vec{z}$ की राशि है–

Options :

1. ✖ $\frac{\sqrt{3}}{2}$

2. ✔ $\frac{3}{2}$

3. ✖ $\frac{1}{2}$

4. ✖ $\frac{3\sqrt{2}}{2}$

Question Number : 273 Question Id : 50389010417 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

There are two orthogonal vectors $\vec{A}, \vec{B}$ in $\mathbf{R}^3$, each of length 1 unit. Let $\vec{P}$ be a vector satisfying the equation $\vec{P} \times \vec{B} = \vec{A} - \vec{P}$, then -

Options :

1. ✔ $\vec{P}$ is orthogonal to $\vec{B}$

2. ✖ $\vec{P}$ is not orthogonal to $\vec{B}$

3. ✖ $\vec{P}$ is orthogonal to $\vec{A}$

4. ✖ $\vec{P}$ is not orthogonal to $\vec{A}$

Question Number : 273 Question Id : 50389010417 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

$\mathbf{R}^3$ में दो लाम्बिक सदिश $\vec{A}$, $\vec{B}$ है, जिसमे प्रत्येक की लंबाई 1 इकाई (unit) है | यदि एक सदिश $\vec{P}$, समीकरण $\vec{P} \times \vec{B} = \vec{A} - \vec{P}$, को पूरा करता हो, तो –

Options :

1. ✔ $\vec{P}$, $\vec{B}$ का लंबकोणीय है

2. ✖ $\vec{P}$, $\vec{B}$ का लंबकोणीय नहीं है

3. ✖ $\vec{P}$, $\vec{A}$ का लंबकोणीय है

4. ✖ $\vec{P}$, $\vec{A}$ का लंबकोणीय नहीं है

Question Number : 274 Question Id : 50389010418 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

The work done in a moving particle in the force field $\vec{F} = 3x^2\,\vec{i} + (2x\,z - y)\,\vec{j} + \vec{zk}$ along the straight line from (0, 0, 0) to (2, 1, 3) is-

Options :

1. ✖ 22 units
2. ✖ 14 units
3. ✔ 16 units
4. ✖ 42 units

Question Number : 274 Question Id : 50389010418 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

(0, 0, 0) से (2, 1, 3) तक एक सीधी रेखा के अनुदिश एक चलमान कण द्वारा बल क्षेत्र $\vec{F} = 3x^2\,\vec{i} + (2x\,z - y)\vec{j} + \overrightarrow{zk}$, में किया गया कार्य होगा –

Options :

1. ✖ 22 इकाइयां
2. ✖ 14 इकाइयां
3. ✔ 16 इकाइयां
4. ✖ 42 इकाइयां

Question Number : 275 Question Id : 50389010419 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

The unit vector perpendicular to each of the vectors $\vec{u} = 2\vec{i} - 2\vec{j} + \vec{k}$, $\vec{v} = \vec{i} + \vec{j} - \vec{k}$ is-

Options :

1. ✖ $\left(\frac{-\vec{i} - 3\vec{j} + 4\vec{k}}{\sqrt{26}}\right)$

2. ✔ $\left(\frac{\vec{i} + 3\vec{j} + 4\vec{k}}{\sqrt{26}}\right)$

3. ✖ $\left(\frac{\vec{i} - 3\vec{j} - 4\vec{k}}{\sqrt{26}}\right)$

4. ✖ $\left(\frac{-\vec{i} + 3\vec{j} - 4\vec{k}}{\sqrt{26}}\right)$

Question Number : 275 Question Id : 50389010419 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

दोनों सदिश $\vec{u} = 2\vec{i} - 2\vec{j} + \vec{k}, \vec{v} = \vec{i} + \vec{j} - \vec{k}$ के लंबवत मात्रक सदिश होगा –

Options :

1. ✖ $\left(\frac{-\vec{i} - 3\vec{j} + 4\vec{k}}{\sqrt{26}}\right)$

2. ✔ $\left(\frac{\vec{i} + 3\vec{j} + 4\vec{k}}{\sqrt{26}}\right)$

3. ✖ $\left(\frac{\vec{i} - 3\vec{j} - 4\vec{k}}{\sqrt{26}}\right)$

4. ✖ $\left(\frac{-\vec{i} + 3\vec{j} - 4\vec{k}}{\sqrt{26}}\right)$

Question Number : 276 Question Id : 50389010420 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Multiplication of the number 0.5321E5 and 0.4387E10 is

Options :

1. ✖ 0.2334323E15

2. ✔ 0.2334E15

3. ✖ 0.233433E15

4. ✖ 0.23343227E15

Question Number : 276 Question Id : 50389010420 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

संख्या 0.5321E5 और 0.4387E10 का गुणन है -

Options :

1. ✖ 0.2334323E15
2. ✔ 0.2334E15
3. ✖ 0.233433E15
4. ✖ 0.23343227E15

Question Number : 277 Question Id : 50389010421 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

If $E = e_1e_2$ with $e_1 = 5.43$, $e_2 = 3.82$ and if error in both e_1, e_2 is 0.01, then the relative error of E is-

Options :

1. ✖ 0.045
2. ✖ 0.0054
3. ✔ 0.0045
4. ✖ 0.0425

Question Number : 277 Question Id : 50389010421 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

यदि $E = e_1e_2$ हो, जहां $e_1 = 5.43$, $e_2 = 3.82$ है और e_1, e_2 दोनों में त्रुटी 0.01 है, तो E का आपेक्षिक त्रुटी होगा –

Options :

1. ✖ 0.045
2. ✖ 0.0054
3. ✔ 0.0045

4. ✖ 0.0425

Question Number : 278 Question Id : 50389010422 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

The absolute error in approximate number $x_A = 0.333$ when exact number $x_T = \frac{1}{3}$ up to two significant digits is

Options :

1. ✖ 0.0003
2. ✔ 0.00033
3. ✖ 0.033
4. ✖ 0.0033

Question Number : 278 Question Id : 50389010422 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

यदि यथार्थ संख्या $x_T = \frac{1}{3}$ का अनिश्चित अंक $x_A = 0.333$ हो, तो दो सार्थक अंकों तक निरपेक्ष त्रुटी है -

Options :

1. ✖ 0.0003
2. ✔ 0.00033
3. ✖ 0.033
4. ✖ 0.0033

Question Number : 279 Question Id : 50389010423 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Let A be the set of rational numbers in the open interval (0, 7) and f : A → R be a uniformly continuous function. Which of the following is true?

Options :

1. ✖ f is necessarily a constant function
2. ✔ f is bounded
3. ✖ f is differentiable on (0, 7)
4. ✖ f is differentiable at all the rational points in (0, 7)

Question Number : 279 Question Id : 50389010423 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

मान लीजिये की A, विवृत अंतराल (0, 7) में परिमेय संख्याओं का समुच्चय है एवं f : A → R एक समान रूप से संतत फलन है | निम्नलिखित में से कौनसा सत्य है

Options :

1. ✖ f अनिवार्य रूप से एक स्थिर फलन है
2. ✔ f परिबद्ध है
3. ✖ f (0, 7) पर अवकलनीय है
4. ✖ f (0, 7) के सभी परिमेय बिन्दुओं पर अवकलानीय है

Question Number : 280 Question Id : 50389010424 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Let n be a fixed natural number. Thus, the series $\sum_{m \geq n} \frac{(-1)^m}{m}$ is –

Options :

1. ✖ Absolutely convergent if n > 100
2. ✖ Divergent
3. ✔ Convergent
4. ✖ Absolutely convergent

Question Number : 280 Question Id : 50389010424 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

मान लीजिए n एक निश्चित प्राकृत संख्या है। अतः श्रेणी $\sum_{m \geq n} \frac{(-1)^m}{m}$ है –

Options :

1. ✖ निरपेक्ष अभिसारी यदि n > 100 हुआ तो
2. ✖ अपसारी
3. ✔ अभिसारी
4. ✖ निरपेक्ष अभिसारी

Teaching Methodology

Group Number :	15
Group Id :	503890275
Group Maximum Duration :	0
Group Minimum Duration :	180
Show Attended Group? :	No
Edit Attended Group? :	No
Break time :	0
Group Marks :	20
Is this Group for Examiner? :	No

Teaching Methodology

Section Id :	503890411
Section Number :	1
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	20
Number of Questions to be attempted :	20
Section Marks :	20
Enable Mark as Answered Mark for Review and Clear Response :	Yes

Sub-Section Number :	1
Sub-Section Id :	503890484
Question Shuffling Allowed :	Yes

Question Number : 281 Question Id : 50389010425 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Who said this "Mathematics is the study of quantity"?

Note: For this question, discrepancy is found in question/answer. So,this question is ignored for all candidates.

Options :

1. Brahmgupta
2. Aristotle
3. Aryabhatta
4. Pythagoras

Question Number : 281 Question Id : 50389010425 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

यह किसने कहा है, “गणित मात्रा का अध्ययन है”?

Note: For this question, discrepancy is found in question/answer. So,this question is ignored for all candidates.

Options :

1. ब्रह्मगुप्त
2. अरस्तू
3. आर्यभट्ट
4. पाइथागोरस

Question Number : 282 Question Id : 50389010426 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option

Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Mathematics is a sequential subject because –
1. Content proceed from simple to complex
2. The content of mathematics has logical structure

Options :

1. ✖ Only 1
2. ✖ Only 2
3. ✔ Both 1 and 2
4. ✖ Neither 1 nor 2

Question Number : 282 Question Id : 50389010426 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

गणित एक अनुक्रमिक विषय है क्योंकि –
1. तत्व सरल से जटिल की ओर बढ़ती है
2. गणित की तत्व में तार्किक संरचना होती है

Options :

1. ✖ केवल 1
2. ✖ केवल 2
3. ✔ दोनों 1 और 2
4. ✖ न तो 1 और न ही 2

Question Number : 283 Question Id : 50389010427 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

In mathematics, reasoning is used for –
1. Deductive reasoning
2. Inductive reasoning

Options :

1. ✖ Only 1
2. ✖ Only 2
3. ✔ Both 1 and 2

4. ✖ Neither 1 nor 2

Question Number : 283 Question Id : 50389010427 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

गणित में तर्क का उपयोग होता है –

1. निगमनात्मक तर्क के लिए
2. आगमिक विवेचन के लिए

Options :

1. ✖ केवल 1
2. ✖ केवल 2
3. ✔ दोनों 1 और 2
4. ✖ न तो 1 और न ही 2

Question Number : 284 Question Id : 50389010428 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Which part of mathematics has been designed with an intention to orient the students towards the mathematical tools relevant in life?

Options :

1. ✔ Applied mathematics
2. ✖ pure mathematics
3. ✖ Biomathematics
4. ✖ Statistic

Question Number : 284 Question Id : 50389010428 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

गणित के किस भाग को छात्रों को जीवन में प्रासंगिक गणितीय उपकरणों की ओर उन्मुख करने के इरादे से डिजाइन किया गया है?

Options :

1. ✔ अनुप्रयुक्त गणित
2. ✖ शुद्ध गणित

3. ✖ जीव गणित
4. ✖ सांख्यिकीय

Question Number : 285 Question Id : 50389010429 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

The Greek philosopher, Socrates is the exponent of

Options :

1. ✖ Lecture method
2. ✔ Question-Answer method
3. ✖ Tutorial method
4. ✖ Demonstration method

Question Number : 285 Question Id : 50389010429 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

यूनानी दार्शनिक सुकरात _____ के प्रतिपादक हैं

Options :

1. ✖ व्याख्यान विधि
2. ✔ प्रश्न-उत्तर विधि
3. ✖ ट्यूटोरियल विधि
4. ✖ प्रदर्शन विधि

Question Number : 286 Question Id : 50389010430 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Angle is a __

Options :

1. ✔ Defined term
2. ✖ Theorem
3. ✖ Axiom or Postulate

4. ✖ Undefined term

Question Number : 286 Question Id : 50389010430 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

कोण एक ___ है –

Options :

1. ✔ परिभाषिक शब्द
2. ✖ प्रमेय
3. ✖ अभिगृहीत या अभिधारणा
4. ✖ अपरिभाषिक शब्द

Question Number : 287 Question Id : 50389010431 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Statement accepted without proof is called-

Options :

1. ✖ Theorem
2. ✖ Defined terms
3. ✖ Unidefined Terms
4. ✔ Axioms or postulate

Question Number : 287 Question Id : 50389010431 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

बिना प्रमाण के स्वीकृत कथन कहलाते हैं-

Options :

1. ✖ प्रमेय
2. ✖ परिभाषित शर्तें
3. ✖ अपरिभाषित शर्तें
4. ✔ अभिगृहीत या अभिधारणा

Question Number : 288 Question Id : 50389010432 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Who gave the ideas of infinity in mathematics?

Options :

1. ✖ Brahmagupta
2. ✖ Aryabhatta
3. ✔ Ramanujan
4. ✖ Bhaskaracharya

Question Number : 288 Question Id : 50389010432 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

गणित में अनंत के विचार किसने दिए?

Options :

1. ✖ ब्रह्मगुप्त:
2. ✖ आर्यभट्ट
3. ✔ रामानुजन्
4. ✖ भास्कराचार्य

Question Number : 289 Question Id : 50389010433 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

If a student is unable to answer a question during a lecture, then as a teacher what should be your response?

Options :

1. ✖ You shall scold the student
2. ✖ Tell the student the correct answer and then move ahead
3. ✔ Try to understand why the student was unable to answer
4. ✖ Advise him to study harder

Question Number : 289 Question Id : 50389010433 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option

Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

यदि कोई छात्र व्याख्यान के दौरान किसी प्रश्न का उत्तर देने में असमर्थ है, तो एक शिक्षक के रूप में आपकी प्रतिक्रिया क्या होनी चाहिए?

Options :

1. ✖ आप छात्र को डांटेंगे
2. ✖ छात्र को सही उत्तर बताएं और फिर आगे बढ़ें
3. ✔ यह समझने का प्रयास करें कि विद्यार्थी उत्तर क्यों नहीं दे पाया
4. ✖ उसे कठिन अध्ययन करने की सलाह दें

Question Number : 290 Question Id : 50389010434 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Who is known as father of geometry?

Options :

1. ✖ Pythagoras
2. ✖ Bhaskaracharya
3. ✖ Brahmgupta
4. ✔ Euclid

Question Number : 290 Question Id : 50389010434 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

ज्यामिति के जनक के रूप में किसे जाना जाता है?

Options :

1. ✖ पाइथागोरस
2. ✖ भास्कराचार्य
3. ✖ ब्रह्मगुप्त
4. ✔ यूक्लिड

Question Number : 291 Question Id : 50389010435 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Mathematical proposition are

Options :

1. ✖ Always true
2. ✖ Always false
3. ✖ True as well as false
4. ✔ Either true or false

Question Number : 291 Question Id : 50389010435 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

गणितीय प्रस्ताव है

Options :

1. ✖ हमेशा सत्य
2. ✖ हमेशा असत्य
3. ✖ सत्य और असत्य
4. ✔ या तो सत्य है या असत्य

Question Number : 292 Question Id : 50389010436 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Which statement is correct about quantifiers?
1. Quantifiers are used to describe variable in statement.
2. Quantifiers used to represcut statement in.

Note: For this question, discrepancy is found in question/answer. So,this question is ignored for all candidates.

Options :

1. Only 1
2. Only 2
3. Both 1 and 2
4. Neither 1 nor 2

Question Number : 292 Question Id : 50389010436 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

परिमाणकों के बारे में कौन सा कथन सही है?

1. कथन में चर का वर्णन करने के लिए परिमाणकों का उपयोग किया जाता है।
2. परिमाणकों के कथन को फिर से लिखने के लिए इस्तेमाल किया जाता है।

Note: For this question, discrepancy is found in question/answer. So,this question is ignored for all candidates.

Options :

1. केवल 1
2. केवल 2
3. 1 और 2 दोनों
4. न तो 1 और न ही 2

Question Number : 293 Question Id : 50389010437 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Which of the following should be a required human-quality for teachers?

1. A teacher should take full interest in school and community problems
2. A teacher should do maximum effort to make his pupils disciplined.

Options :

1. ✖ Only 1
2. ✖ Only 2
3. ✔ Both 1 and 2
4. ✖ Neither 1 nor 2

Question Number : 293 Question Id : 50389010437 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

निम्नलिखित में से कौन शिक्षकों के लिए आवश्यक मानव-गुण होना चाहिए?

1. एक शिक्षक को स्कूल और सामुदायिक समस्याओं में पूरी दिलचस्पी लेनी चाहिए
2. एक शिक्षक को अपने विद्यार्थियों को अनुशासित बनाने के लिए अधिकतम प्रयास करना चाहिए।

Options :

1. ✖ केवल 1
2. ✖ केवल 2
3. ✔ 1 और 2 दोनों
4. ✖ न तो 1 और न ही 2

Question Number : 294 Question Id : 50389010438 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Which is not an example of set?

Options :

1. ✖ The set of positive integers
2. ✖ The set of all rivers in India
3. ✖ The set of all capital cities in India
4. ✔ The collection of intelligent student in class XII

Question Number : 294 Question Id : 50389010438 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

कौन सा एक समुच्चय का उदाहरण नहीं है?

Options :

1. ✖ धनात्मक पूर्णांकों का समुच्चय
2. ✖ भारत की सभी नदियों का समुच्चय
3. ✖ भारत के सभी राजधानियों का समुच्चय
4. ✔ बारहवीं कक्षा में बुद्धिमान छात्रों का संग्रह

Question Number : 295 Question Id : 50389010439 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

If children find Mathematics tough, then they must -

Options :

1. ✖ work out the problem as shown on the blackboard
2. ✖ Try to remember the process
3. ✔ Ensure that they understand the basic of each process
4. ✖ Sit quietly and listen

Question Number : 295 Question Id : 50389010439 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

यदि बच्चे को गणित कठिन लगे तो उन्हें अवश्य ही

Options :

1. ✖ ब्लैकबोर्ड पर दिखाए अनुसार समस्या का समाधान करना चाहिए
2. ✖ प्रक्रिया को याद रखने का प्रयास करना चाहिए
3. ✔ सुनिश्चित करना चाहिए कि वे प्रत्येक प्रक्रिया के मूल को समझे
4. ✖ चुपचाप बैठकर सुनना चाहिए

Question Number : 296 Question Id : 50389010440 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Four stages of children intellectual development has been defined by-

Options :

1. ✖ Skinner
2. ✔ Piaget
3. ✖ Kohlberg
4. ✖ Ericson

Question Number : 296 Question Id : 50389010440 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

बच्चों के बौद्धिक विकास के चार चरणों को परिभाषित किया है-

Options :

1. ✖ स्किनर ने
2. ✔ पियाजे ने
3. ✖ कोहलबर्ग ने
4. ✖ एरिक्सन ने

Question Number : 297 Question Id : 50389010441 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Johann Friedrich Herbar is associated with -

Options :

1. ✖ Development of mathematics as a subject
2. ✔ Evolution of curriculum- field
3. ✖ Evolution of extra-curricular activities
4. ✖ Development of Algebra for children

Question Number : 297 Question Id : 50389010441 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

जोहान फ्रेडरिक हरबार संबंधित है -

Options :

1. ✖ एक विषय के रूप में गणित के विकास से
2. ✔ पाठ्यक्रम के विकास- क्षेत्र से
3. ✖ पाठ्येतर गतिविधियों के विकास से
4. ✖ बच्चों के लिए बीजगणित के विकास से

Question Number : 298 Question Id : 50389010442 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Which of the following problems are faced by teachers while teaching Mathematics?
1. A sense of fear and failure regarding mathematics among a majority of children
2. In reality, Mathematics can be taught only to a limited few with proper IQ towards the subject

Options :

1. ✔ Only 1
2. ✖ Only 2
3. ✖ Both 1 and 2
4. ✖ Neither 1 nor 2

Question Number : 298 Question Id : 50389010442 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

गणित पढ़ाते समय शिक्षकों को निम्नलिखित में से किन समस्याओं का सामना करना पड़ता है?

1. बहुसंख्यक बच्चों में गणित को लेकर भय और असफलता का भाव
2. वास्तव में, गणित विषय के प्रति उचित बुद्धि के साथ कुछ सीमित लोगों को ही यह पढ़ाया जा सकता है

Options :

1. ✔ केवल 1
2. ✖ केवल 2
3. ✖ 1 और 2 दोनों
4. ✖ न तो 1 और न ही 2

Question Number : 299 Question Id : 50389010443 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Which of the following should be introduced in the secondary stage of Mathematics curriculum?

Options :

1. ✖ Mathematical games
2. ✖ Algebra
3. ✔ Trigonometry
4. ✖ Regular shapes: : triangles, circles, quadrilaterals

Question Number : 299 Question Id : 50389010443 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

गणित पाठ्यक्रम के माध्यमिक चरण में निम्नलिखित में से किसे शामिल किया जाना चाहिए?

Options :

1. ✖ गणितीय खेल
2. ✖ बीजगणित
3. ✔ त्रिकोणमिति
4. ✖ नियमित आकृतियाँ: : त्रिभुज, वृत्त, चतुर्भुज

Question Number : 300 Question Id : 50389010444 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

Alternating or changing our existing schemes in light of new information is known as -

Options :

1. ✖ Schema
2. ✖ Assimilation
3. ✔ Accomodation
4. ✖ Equilibration

Question Number : 300 Question Id : 50389010444 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.25

नई जानकारी के आलोक में हमारी मौजूदा योजनाओं को बदलने को कहा जाता है -

Options :

1. ✖ योजना
2. ✖ समावेश
3. ✔ आवास
4. ✖ संतुलन