Andhra Pradesh State Council of Higher Education

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 :	MATHEMATICS URDU 14th June 2023 Shift 1
Duration :	120
Total Marks :	150
Display Marks:	No
Share Answer Key With Delivery Engine :	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?	Yes
Change Font Color :	No
Change Background Color :	No
Change Theme :	No
Help Button :	No
Show Reports :	No

Show Progress Bar :	No
Is this Group for Examiner? :	No
Examiner permission :	Cant View
Show Progress Bar? :	No

General English

Section Id :	145589344
Section Number :	1
Mandatory or Optional :	Mandatory
Number of Questions :	21
Section Marks :	25
Enable Mark as Answered Mark for Review and Clear Response :	Yes
Maximum Instruction Time :	0
Is Section Default? :	null

Question Id : 14558910293 Sub Question Shuffling Allowed : Yes Group Comprehension Questions : No Question Pattern Type : NonMatrix Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Question Numbers : (1 to 5)

Question Numbers 1 to 5 :

Read the following passage and answer the questions that follow :

Dogs and cats should never be permitted to eat chocolate, because chocolate works like a poison on their bodies. Chocolate contains a chemical called Theobromine, which is similar to caffeine. Human bodies are able to process the Theobromine without any ill-side effects, but dogs and cats cannot.

Different types of chocolate contain different amounts of Theobromine. It would take twenty ounces of milk chocolate to kill a twenty pound dog, but only two ounces of baker's chocolate or six ounces of semi-sweet chocolate. The amounts, of course, are much smaller for a cat, whose body weight is typically less than that of a dog. Most Cats are not naturally attracted to eating chocolate, but many dogs are. Dogs, by nature, will sample nearly anything that they see their masters eating, so pet owners must take care to keep all chocolate products well out of reach of their dogs and cats.

Sub questions

Question Number : 1 Question Id : 14558910294 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

According to the passage, why is chocolate poisonous for dogs and cats?

Options :

1. ✖ It contains caffeine

2. ✖ Chocolate is made from processed cocoa

3. ✖ It gets stuck in their intestines

They cannot process Theobromine

4. ✔

Question Number : 2 Question Id : 14558910295 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

How much milk chocolate would be poisonous to a cat?

Options :

Substantially less than twenty ounces

1. ✔

Substantially more than twenty ounces

2. ✖

Approximately one pound

3. ✖

Half- a Hershy chocolate bar

4. ✖

Question Number : 3 Question Id : 14558910296 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Why might a dog eat chocolate, according to the passage?

Options :

because it tastes good

1. ✖

dogs won't eat chocolate

2. ✖

they can smell the theobromine

3. ✖

dogs like to imitate their owners

4. ✔

Question Number : 4 Question Id : 14558910297 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Choose the correct statement about the passage :

Options :

Chocolate has ill effects

1. ✖

Cats take twenty ounces of milk chocolate

2. ✖

Cats follow the habits of their masters

3. ✖

Human bodies process the Chemical called Theobromine

4. ✔

Question Number : 5 Question Id : 14558910298 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction

Time : 0

What does 'sample' mean in the passage?

Options :

1. ✖ model

2. ✔ taste

3. ✖ simple

4. ✖ gluttonous

Is Section Default? : null

Question Number : 6 Question Id : 14558910299 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Choose the correct sentence :

Options :

1. ✖ It is raining, aren't it

2. ✖ He said that he is ruined

3. ✔ You must work hard for success

It is smelling goodly

4. ✖

Question Number : 7 Question Id : 14558910300 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Choose the correct sentence :

Options :

Considering about the quality, the price is not high

1. ✖

Do not preventing me work

2. ✖

She resembles her sister

3. ✔

He persisted to say this

4. ✖

Question Number : 8 Question Id : 14558910301 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Choose the appropriate articles :

_____ rose is _____ attractive flower

Options :

1. ✖

an, a

2. ✖ a, an

3. ✔ the, an

4. ✖ the, a

Question Number : 9 Question Id : 14558910302 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Choose the appropriate articles :

_____ bird in the hand is worth two in _____ bush.

Options :

1. ✖ an, the

2. ✔ a, the

3. ✖ a, an

4. ✖ the, the

Question Number : 10 Question Id : 14558910303 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Choose the appropriate preposition :

He was vexed _____ Ram for his behaviour.

Options :

1. ✖ at

2. ✖ to

3. ✔ with

4. ✖ upon

Question Number : 11 Question Id : 14558910304 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Choose the appropriate preposition :

Prasad is confident _____ his success.

Options :

1. ✔ of

towards

2. ✖

for

3. ✖

about

4. ✖

Question Number : 12 Question Id : 14558910305 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Choose the correct answer :

The General _____ the enemy's fortress

Options :

storm

1. ✖

stormed

2. ✔

have stormed

3. ✖

is storm

4. ✖

Question Number : 13 Question Id : 14558910306 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Choose the correct answer :

He _____, he ____ and he _____.

Note: For this question, discrepancy is found in question/answer. Full Marks is being awarded to all candidates.

Options :

1. come, san, conquered

2. came, see, conquered

3. came, san, conquered

4. came, see, conquer

Question Number : 14 Question Id : 14558910307 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Choose the correct answer :

'Parasite' means

Options :

1. ✖ A loss of motion

2. ✖ exterminator

3. ✖ disease

4. ✔ one that clings

Question Number : 15 Question Id : 14558910308 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Choose the correct answer :

'placate' means

Options :

1. ✖ to make sure

2. ✖ to annoy

3.

to pacify

to refuse

4.

Question Number : 16 Question Id : 14558910309 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Choose the appropriate synonym for

'Forestall' means

Options :

1. Progress

2. Frights

3. Prevent

4. Disappoint

Question Number : 17 Question Id : 14558910310 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Choose the appropriate synonym for Rectify

Options :

1. ✖ Build

2. ✔ Correct

3. ✖ Destroy

4. ✖ Command

Question Number : 18 Question Id : 14558910311 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Choose the appropriate antonym for Anomalous

Options :

1. ✔ normal

2. ✖ connected

3. ✖ vicious

4. ✖ capacious

Question Number : 19 Question Id : 14558910312 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Choose the appropriate antonym for preposterous

Options :

1. ✖ apologetic

2. ✔ credible

3. ✖ conceited

4. ✖ complaisant

Question Number : 20 Question Id : 14558910313 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Change the following into a complex sentence :
We went there and found that she had left

Options :

1. ✖ She had left and we went there

2. ✖ She and we could not find each other

3. ✔ When we went there, we found that she had left

4. ✖ She went there to find we were not there.

Question Number : 21 Question Id : 14558910314 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Change the following into a simple sentence :
The cow is good and gives milk.

Options :

1. ✔ The good cow gives milk

2. ✖ This is a good cow, which gives milk

3. ✖ To milk the cow is good

4. ✖ The good cow gives no milk

Question Number : 22 Question Id : 14558910315 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Change the sentence from active to passive voice :

A storm ravaged the village

Options :

1. ✖ The village ravaged the storm

2. ✔ The village was ravaged by a storm

3. ✖ The village ravage by a storm

4. ✖ A storm ravage the village

Question Number : 23 Question Id : 14558910316 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Change the sentence from passive to active voice

"their wonder was restrained by a strange happening"

Options :

1. ✔ a strange happening restrained their wonder

2. ✖ Their wonder restrained a strange happening

3. ✖

Happening strange their wonder restrained

Their wonder made a strange happening

4. ✖

Question Number : 24 Question Id : 14558910317 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Change the sentence from direct to indirect speech.

He said, "I will be writing to him soon."

Options :

1. ✔ He said that he would be writing to him soon

2. ✖ He said that he would be writes to him soon

3. ✖ He told that he will be writing to him soon

4. ✖ He said that I would be writing to him soon

Question Number : 25 Question Id : 14558910318 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Change the sentence from indirect to direct speech.

She said that they would have a party that night.

Options :

1. ✖ She says, “we will have a party now”.

2. ✔ She said, “we will have a party to night.”

3. ✖ She ordered, “we must organize a party tomorrow”.

4. ✖ She said, “we could have a party yester night.”

General Knowledge

Section Id :	145589345
Section Number :	2
Mandatory or Optional :	Mandatory
Number of Questions :	15
Section Marks :	15
Enable Mark as Answered Mark for Review and Clear Response :	Yes
Maximum Instruction Time :	0
Is Section Default? :	null

Question Number : 26 Question Id : 14558910319 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The leadership in family planning – EXCELL awards 2022 in the country category was received by :

خاندانی منصوبہ بندی میں لیڈرشپ۔ایکسل ایوارڈس 2022 ملکی زمرہ میں اس ملک نے حاصل کیا۔

Options :

1. ✖ China

چین

2. ✔ India

ہندوستان

3. ✖ Singapore

سنگاپور

4. ✖ Thailand

تھائی لینڈ

Question Number : 27 Question Id : 14558910320 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The Indian Film personality of the year 2022 award at the 53rd International film festival of India (IFFI) was presented to :

ہندوستان کے 53ویں بین الاقوامی فلم فیسٹیول (IFFI) برائے سال 2022 کا ہندوستانی فلمی شخصیت کا ایوارڈ کسے پیش کیا گیا؟

Options :

1. ✖ Rajinikanth

رجنی کانت

2. ✖ Late PuneethRajkumar

مرحوم پونیت راج کمار

3. ✔ KonidelaChiranjeevi

کونی ڈیلا چرنجیوی

4. ✖ Amir Khan

عامر خان

Question Number : 28 Question Id : 14558910321 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

28.In India, eleven states account for 90 percent of the total number of operational mines. Which of the following states are part of them?

ہندوستان میں 90% کام کرنے والی کانوں کی کل تعداد گیارہ ریاستوں میں واقع ہے۔ان میں سے چند ریاستیں یہ ہیں۔

A. Andhra Pradesh

آندھرا پردیش

B. Bihar

بہار

C. Chhattisgarh

چھتیس گڑھ

D. Gujarat

گجرات

E. Uttarakhand

اتراکھنڈ

Select the correct answer :

صحیح جواب کا انتخاب کریں۔

Options :

A, C & D only

صرف A، C اور D

1. ✔

B & E only

صرف B اور E

2. ✖

3. ✖

A, C, D & E only

صرف A، C، D اور E

A, B & C only

صرف A، B اور C

4. ✖

Question Number : 29 Question Id : 14558910322 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

.Which one of the following is incorrect with regard to the National Green Hydrogen Mission?

نیشنل گرین ہائیڈروجن مشن کے حوالے سے ذیل میں کون سا بیان غلط ہے۔

Options :

It was approved by the Union Cabinet in April 2023.

اسے مرکزی کابینہ نے اپریل 2023 میں منظوری دی

1. ✔

It makes India a leading producer of green hydrogen in the world.

یہ ہندوستان کو دنیا میں سبز ہائیڈروجن پیدا کرنے والا ایک سرکردہ ملک بناتا ہے۔

2. ✖

3. ✖

It reduces dependence on imported fossil fuels.

یہ درآمد شدہ باقیاتی ایندھن پر انحصار کم کرتا ہے۔

It attracts investment opportunities for the industry.

یہ صنعت کے لیے سرمایہ کاری کے مواقعوں کو راغب کرتا ہے۔

4. ✖

Question Number : 30 Question Id : 14558910323 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

30. 'Yaanam' is a science documentary of about 44 minutes. Which of the following are correct about it?

تقریباً 44منٹ کی فلم "یانام" ایک سائنسی دستاویز ہے۔ ذیل میں کون سا بیان اس کے بارے میں درست ہے۔

A. Yaanam is a first science non-feature film in Sanskrit.

"یانام" سنسکرت میں پہلی نان۔فیچر سائنسی فلم ہے۔

B. It recounts the story of India's Chandrayan.

یہ ہندوستان کے چندریان کی کہانی بتاتی ہے۔

C. It was screened at the 53rd edition of the International Film Festival of India (IFFI)

اسے 53ویں انٹرنیشنل فلم فیسٹیول (انڈیا) میں دکھایا گیا تھا۔

Select the correct answer :

صحیح جواب منتخب کریں

Options :

A & B only

صرف A اور B

1. ✖

A & C only

صرف A اور C

2. ✔

C only

صرف C

3. ✖

B & C only

صرف B اور C

4. ✖

Question Number : 31 Question Id : 14558910324 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

.The total length of national highways (NH) in India , as on 30th November, 2022,

approximately, was : (in lakh kms)

30نومبر 2022 تک ہندوستان میں قومی شاہراہوں کی کل لمبائی تقریباً---- تھی (لاکھ کلومیٹر میں)۔

Options :

1. ✔ 1.45

2. ✖ 1.38

3. ✖ 1.27

4. ✖ 1.52

Question Number : 32 Question Id : 14558910325 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

March 2023, who among the following was elected as the Chief Minister of Tripura?

مارچ 2023 میں ذیل میں سے کون تریپورا کا وزیر اعلیٰ منتخب ہوا؟

Options :

1. ✔ ManikSaha

مانک ساہا

2. ✖ ManikSarkar

مانک سرکار

Biplab Kumar Deb

بپلاب کمار دیب

3. ✖

Dasarath Deb

دسرتھ دیب

4. ✖

Question Number : 33 Question Id : 14558910326 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In World women's Boxing Championship 2023 who won the gold medal in 50kg category.

2023ورلڈ ویمنز باکسنگ چیمپئن شپ میں 50 کلو گرام کے زمرے میں کس نے گولڈ میڈل جیتا تھا؟

Options :

LovlinaBorgohain

لولینابورگوہم

1. ✖

NikhatZareen

نکہت زرین

2. ✔

3. ✖

Saweety Boora

سویتی بورا

NituGhangas

نیتو گھنگاس

4. ✖

Question Number : 34 Question Id : 14558910327 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following is wrongly paired regarding Nobel Prizes 2022.

نوبل انعامات 2022 کے حوالے سے ذیل میں غلط جوڑی کون سی ہے؟

Options :

Physics – John . F. Clauser

طبیعیات -- جان ایف۔ کلاسر

1. ✖

Chemistry – Alain Aspect

کیمیا -- الین ایسپکٹ

2. ✔

3. ✖

Peace – Ales Bialiatski

امن -- الیس بیالیاٹسکی

Economics – Philip. H. Dybvig

معاشیات -- فلپ ایچ۔ڈئیب وگ

4. ✖

Question Number : 35 Question Id : 14558910328 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Choose the incorrect pair regarding the Union Budget – 2023 from the following.

مرکزی بجٹ برائے سال 2023 کے حوالے سے ذیل میں سے غلط جوڑ کا انتخاب کیجیے۔

Options :

Gobardhan - Waste to wealth plants

گوبردھن ۔ دولت کے پودوں کو فضلا

1. ✖

AmritDharohar – Optimal use of wetlands

امرت دھروہر ۔ گیلی زمینوں کا بہترین استعمال

2. ✖

3. ✔

Unity mall – Centre for national integration

یونٹی مال ۔ قومی یکجہتی کا مرکز

Saptarishi – Seven priorities of the Budget.

سپتارشی ۔ بجٹ کے سات ترجیحات

4. ✖

Question Number : 36 Question Id : 14558910329 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

.Whose writings influenced Karl Marx's dialectical materialism?

کس کی تحریروں نے کارل مارکس کی مابعد الطبیعیات کو متاثر کیا۔

Options :

Ricardo

ریکارڈو

1. ✖

Hegel

ہیگل

2. ✔

Angels

اینگلس

3. ✖

Lenin

لینن

4. ✖

Question Number : 37 Question Id : 14558910330 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Identify the writer who won the SahityaAkademi Award for Telugu Novel 'ManodharmaParagam' in 2022.

''منودھرماپراگم'' نامی تلگوناول کے لیے مرکزی ساہتیہ اکاڈمی ایوارڈ برائے سال2022اس مصنف کو دیا گیا۔

Options :

Vadde Naveen

وڈے نوین

1. ✖

RepakaSubhadra

ریپکاسوبھدرا

2. ✖

3. ✔

MadhuranthakamNarendra

مدھورانتکم نریندرا

Chandra Latha

چندرالتا

4. ✖

Question Number : 38 Question Id : 14558910331 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

.In which city the COP-27 conference was held

کس شہر میں COP-27 کانفرنس منعقد کی گئی۔

Options :

Kuwait

کویت

1. ✖

Sharm-el-Sheikh

شرم الشیخ

2. ✔

Doha

دوہا

3. ✖

Beirut

بیروت

4. ✖

Question Number : 39 Question Id : 14558910332 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which Harappan City recognized as UNESCO world Heritage site in 2021.

کس ہڑپہ شہر کو 2021 میں UNESCO کے عالمی ثقافتی ورثے کا درجہ دیا گیا۔

Options :

Kalibangan

کالی بنگن

1. ✖

Dholavira

دھولاویرا

2. ✔

MohenjoDaro

موہنجودارو

3. ✖

4. ✖

Lothal

لوتھل

Question Number : 40 Question Id : 14558910333 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Every year world Press Freedom Day is celebrated on

ہر سال اس دن یوم آزادی صحافت منایا جاتا ہے۔

Options :

1. ✔ 3rd, May

مئی 3

2. ✖ 3rd, April

اپریل 3

3. ✖ 13th, May

مئی 13

4. ✖

13th, April

13 اپریل

Teaching Aptitude

Section Id :	145589346
Section Number :	3
Mandatory or Optional :	Mandatory
Number of Questions :	10
Section Marks :	10
Enable Mark as Answered Mark for Review and Clear Response :	Yes
Maximum Instruction Time :	0
Is Section Default? :	null

Question Number : 41 Question Id : 14558910334 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What is the appropriate purpose of learning?

سیکھنے کا مناسب مقصد کیا ہے؟

Options :

Modifications of behaviour

کردار میں تبدیلی

1. ✔

Individual adjustment

انفرادی مطابقت

2. ✖

Social and Political awareness

سماجی و سیاسی بیداری

3. ✖

Development of life skills

زندگی کی مہارتوں میں ترقی

4. ✖

Question Number : 42 Question Id : 14558910335 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

How can a teacher establish rapport with students?

ایک استاد طلبہ کے ساتھ ہم آہنگی کیسے قائم رکھ سکتا ہے؟

Options :

Becoming a figure of authority

اختیار کا پیکر بن کر

1. ✖

2. ✖

Impressing students with knowledge and skills

علم و مہارت سے طلبہ کو متاثر کر کے

Playing the role of a guide

رہنما کا کردار ادا کر کے

3. ✔

Becoming a friend to the student

طالب علم کا دوست بن کر

4. ✖

Question Number : 43 Question Id : 14558910336 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What are the essentials for the improvement of any skill?

کسی بھی مہارت کی بہتری کے لیے کیا ضروری ہے؟

Options :

Correctness & Speed

درستگی اور رفتار

1. ✖

2. ✔

Accuracy & speed

مطابقت اور رفتار

Understanding & correctness

تفہیم اور درستگی

3. ✖

Easy methods & speed

آسان طریقے اور رفتار

4. ✖

Question Number : 44 Question Id : 14558910337 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What can we promote to the learner through assignments?

تفویضات کے ذریعے ہم متعلم کو کس کا بڑھاوا دے سکتے ہیں؟

Options :

Proper utilization of time

وقت کا صحیح استعمال

1. ✖

2. ✖

Continuity of classwork

کلاس ورک کا تسلسل

Innovative ideas

اختراعی خیالات

3. ✖

Thought provoking

فکر انگیزی

4. ✔

Question Number : 45 Question Id : 14558910338 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

How education is useful in application towards daily life?

روزانہ زندگی میں اطلاق کے لیے تعلیم کس طرح فائدہ مند ہے؟

Options :

For logical thinking

منطقی سوچ کے لیے

1. ✖

2. ✖

Social values

سماجی اقدار

Problem solving

مسئلہ حل کرنا

3. ✔

Moral values

اخلاقی اقدار

4. ✖

Question Number : 46 Question Id : 14558910339 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What is suggestible step for the improvement of a slow learner?

سست متعلم کی ترقی کے لیے تجویز کردہ قدم کیا ہے؟

Options :

Remedial teaching

اصلاحی تدریس

1. ✔

Re teaching

بازتدریس

2. ✖

Group discussion

گروہی مباحثہ

3. ✖

Imposition

روزانہ مشق

4. ✖

Question Number : 47 Question Id : 14558910340 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What is the output that we expect from the students through high percentage of attendance

زیادہ فی صد حاضری دینے والے طلبہ سے ہم کس خصوصیت کی توقع رکھ سکتے ہیں؟

Options :

Mid day meals

دوپہر کا کھانا

1. ✖

Discipline

نظم وضبط

2. ✖

Minimum levels of learning

اکتساب کی اقل ترین سطحیں

3. ✔

Honesty

ایمان داری

4. ✖

Question Number : 48 Question Id : 14558910341 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which is the strategy goes perfect for the attainment of effective learning?

موثر اکتساب کے حصول کے لیے کون سے اقدامات مفید ہیں؟

Options :

Online oriented education

آن لائن پر مبنی تعلیم

1. ✖

Learner centered education

متعلم مرکزی تعلیم

2. ✔

3. ✖

Teacher centered education

مدرس مرکزی تعلیم

Play way education

تعلیم بذریعہ کھیل

4. ✖

Question Number : 49 Question Id : 14558910342 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Expand UPE as per article No-45 of Indian constitution?

ہندوستانی آئین کے دفع نمبر 45 کے مطابق UPE کا پھیلاؤ

Options :

Union Programme education

یونین پروگرام ایجوکیشن

1. ✖

Upper primary education

اپر پرائمری ایجوکیشن

2. ✖

3. ✖

University programme education

یونی ورسٹی پروگرام ایجوکیشن

Universal primary education

یونی ورسل پرائمری ایجوکیشن

4. ✔

Question Number : 50 Question Id : 14558910343 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

"Jaya JayaPriyaBharathaJanayitri..... Divyadhatri...." Who wrote this song?

"جیا جیا پریا بھارتا جنا اتری۔۔۔۔ دویا دھاتری۔۔۔۔" نغمہ کس نے لکھا؟

Options :

Dasaradhi

داسر تھی

1. ✖

Devulapalli Krishna Sastry

دیولا پلی کرشنا شاستری

2. ✔

3. ✖

SreeSree

سری سری

Aathreya

آتریا

4. ✖

Mathematics

Section Id :	145589347
Section Number :	4
Mandatory or Optional :	Mandatory
Number of Questions :	100
Section Marks :	100
Enable Mark as Answered Mark for Review and Clear Response :	Yes
Maximum Instruction Time :	0
Is Section Default? :	null

Question Number : 51 Question Id : 14558910344 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The orthogonal trajectories of the family of parabolas $x^2 = 4ay$ is

مکافی کے خاندان $x^2 = 4ay$ کی عمودی خطی حرکت

Options :

$x^2 - 2y^2 = c$

1. ✖

$y^2 - 2x^2 = c$

2. ✖

$x^2 + 2y^2 = c$

3. ✔

$x^2 + y^2 = c$

4. ✖

Question Number : 52 Question Id : 14558910345 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The general solution of the differential equation $\frac{d^2y}{dx^2} + \frac{dy}{dx} = e^x$

تفرقی مساوات $\frac{d^2y}{dx^2} + \frac{dy}{dx} = e^x$ کا عمومی حل

Options :

$y = e^x + c_1 e^{-x} + c_2$

1. ✖

$y = \frac{e^x}{2} - c_1 e^{-x} + c_2 x$

2. ✖

3. ✔

$y = \frac{e^x}{2} - c_1 e^{-x} + c_2$

$y = x e^x + c_1 e^{-x}$

4. ✖

Question Number : 53 Question Id : 14558910346 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The general solution of the differential equation $\left(x^3 - 2y^2\right)dx + 2xy\,dy = 0$ is

- تفرقی مساوات کا عمومی حل $(x^3 - 2y^2)dx + 2xy\,dy = 0$

Options :

$x^2 y + xy^3 = c$

1. ✖

$x^3 + y^2 = cx^2$

2. ✔

$x^3 - x^2 = cy^2$

3. ✖

$x^3 + x^2 = c(x + y)$

4. ✖

Question Number : 54 Question Id : 14558910347 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction

Time : 0

An integrating factor of the differential equation $x\frac{dy}{dx}+y=3x^2$ is

تفرقی مساوات کا تکمیلہ جبز ضربی $x\frac{dy}{dx}+y=3x^2$

Options :

1. ✖ $\frac{1}{x}$

2. ✔ x

3. ✖ x^2

4. ✖ e^x

Question Number : 55 Question Id : 14558910348 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The general solution of the equation $(D^3-D^2-5D-3)y=0$, $(where\ D=\frac{d}{dx})$ is

مساوات $(D^3-D^2-5D-3)y=0$ کا عمومی حل ۔

Options :

1. ✖ $c_1e^{-x}+c_2e^{x}+c_3e^{3x}$

2. ✖ $(c_1+c_2)e^{-x}+c_3e^{3x}$

3. ✔ $(c_1+c_2x)e^{-x}+c_3e^{3x}$

4. ✖ $c_1e^{-x}+(c_2+c_3x)e^{3x}$

Question Number : 56 Question Id : 14558910349 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The general solution of the differential equation $p^2-5p+6=0$ where $p=\frac{dy}{dx}$ is

تفرقی مساوات $p^2-5p+6=0$ کا عمومی حل جہاں $p=\frac{dy}{dx}$

Options :

1. ✖ $(y+8x+c)(y-2x+c)=0$

2. ✖ $(y-3x+c)(y+5x+c)=0$

3. ✖ $(y+x+c)(y+2x+c)=0$

4. ✔ $(y-3x+c)(y-2x+c)=0$

Question Number : 57 Question Id : 14558910350 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The particular integral of the differential equation $(D^2-3D+2)y=\cos 3x$ where $D=\frac{d}{dx}$ is

- تفرقی مساوات $(D^2-3D+2)y=\cos 3x$ کا مخصوص تکمیلہ جہاں $D=\frac{d}{dx}$

Options :

1. ✖ $\frac{9\sin 3x-7\cos 3x}{130}$

2. ✖ $\frac{9\sin 3x+7\cos 3x}{32}$

3. ✔ $\frac{-9\sin 3x-7\cos 3x}{130}$

4. ✖ $\frac{7\sin 3x-9\cos 3x}{130}$

Question Number : 58 Question Id : 14558910351 Display Question Number : Yes Is Question

Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The general solution of the differential equation $(x+y)(dx-dy)=dx+dy$ is

تفرقی مساوات $(x+y)(dx-dy)=dx+dy$ کا عمومی حل

Options :

1. ✖ $x+y+\log|x+y|=c$

2. ✖ $x-y+\log|x-y|=c$

3. ✖ $x-y-\log|x-y|=c$

4. ✔ $x-y-\log|x+y|=c$

Question Number : 59 Question Id : 14558910352 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

An integrating factor of the differential equation $(x^2y-2xy^2)dx-(x^3-3x^2y)dy=0$

is

تفرقی مساوات $(x^2y-2xy^2)dx-(x^3-3x^2y)dy=0$ کا تکمیلہ جزلفزی ——

Options :

1. ✖

$\frac{1}{xy}$

2. ✖ x^2y^2

3. ✔ $\frac{1}{x^2y^2}$

4. ✖ xy

Question Number : 60 Question Id : 14558910353 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

An integrating factor of the differential equation $(1+xy)ydx+(1-xy)xdy=0$ is

تفرقی مساوات تکمیلہ جزو ضربی $(1+xy)y\,dx+(1-xy)x\cdot dy=0$

Options :

1. ✖ $\frac{1}{x^2y}$

2. ✖ $\frac{1}{xy^2}$

3.

$$\frac{1}{2x^2y^2}$$

✔

$$\frac{2}{xy}$$

4. ✖

Question Number : 61 Question Id : 14558910354 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

. The solution of the differential equation $y'' + y = 0$ satisfying $y(0) = 1$ and $y\left(\frac{\pi}{2}\right) = 2$ is

$y'' + y = 0$ تفرقی مساوات کا حل جو $y(0) = 1$ اور $y(\pi/2) = 2$ کو مطمئن کرتا ہے۔

Options :

1. ✖ $y = 2\cos x + \sin x$

2. ✖ $y = 2\sin x - \cos x$

3. ✖ $y = \cos x - 2\sin x$

4. ✔ $y = \cos x + 2\sin x$

Question Number : 62 Question Id : 14558910355 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The linear differential equation with constant coefficients obtained by converting

$x^2y'' + xy' + 7y = \frac{2}{x}$ is

$x^2y'' + xy' + 7y = \frac{2}{x}$ کو تبدیل کرنے پر حاصل ہونے والی

خطی تفرقی مساوات جسمیں مستقل ضربے پائے جاتے ہیں۔

Options :

1. $\frac{d^2y}{dt^2} + 7y = 2e^t$ ✔

2. $\frac{d^2y}{dt^2} + y = e^t$ ✖

3. $\frac{d^2y}{dt^2} + 2y = 7e^t$ ✖

4. $\frac{d^2y}{dt^2} - 7y = e^{-t}$ ✖

Question Number : 63 Question Id : 14558910356 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

. Which one of the following is false?

(D stands for $\frac{d}{dx}$)

(D سے مراد $\frac{d}{dx}$) ذیل میں یہ غلط بیان ہے۔

Options :

1. ✖ $\frac{1}{f(D)}(e^{ax}V) = \frac{1}{f(D+a)}V,\ V = f(x)$

2. ✔ $\frac{1}{f(D)}(x^2e^{ax}) = \frac{1}{f(D+a)}(e^{ax}x^2)$

3. ✖ $\frac{1}{f(D)}x^m = [f(D)]^{-1}x^m$

4. ✖ $\frac{1}{f(D^2)}\sin(ax+b) = \frac{1}{f(-a^2)}\sin(ax+b), f(-a^2) \neq 0$

Question Number : 64 Question Id : 14558910357 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Among the following, the differential equation that is not a Bernoulli's equation is

ذیل میں یہ تفرقی مساوات جو برنالی مساوات نہیں ہے۔

Options :

$$x\frac{dy}{dx}+y=x^3y^6$$

1. ✖

$$\frac{dt}{dx}+\frac{t}{x}=\frac{t^2}{x}$$

2. ✖

$$\sec^2 y\,\frac{dx}{dy}+x\tan y=x^3$$

3. ✖

$$(x\,e^{xy}+2y)\frac{dy}{dx}+y\,e^{xy}=0$$

4. ✔

Question Number : 65 Question Id : 14558910358 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

. The differential equation $(y^2e^{xy^2}+6x)dx+(2xy\,e^{xy^2}-4y)dy=0$ is

یہ تفرقی مساوات $(y^2e^{xy^2}+6x)dx+(2xye^{xy^2}-4y)dy=0$

Options :

linear and homogeneous

خطی اور متجانس

1. ✖

2. ✖

homogeneous and exact

متجانس اور قطعی

non-homogeneous and non exact

غیر متجانس اور غیر قطعی

3. ✖

non-homogeneous and exact

غیر متجانس اور قطعی

4. ✔

Question Number : 66 Question Id : 14558910359 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

$y = cx - c^2$ is the general solution of the differential equation

$y = cx - c^2$ عمومی حل ہے ——— تفرقی مساوات کا

Options :

$y' = c$

1. ✖

$y'' = 0$

2. ✖

3. ✔

$(y')^2 - x\,y' + y = 0$

$(y')^2 + x\,y' + y = 0$

4. ✖

Question Number : 67 Question Id : 14558910360 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The general solution of the differential equation $x\frac{d^2y}{dx^2} + \frac{dy}{dx} + 1 = 0$ is

تفرقی مساوات کا عمومی حل $x\frac{d^2y}{dx^2} + \frac{dy}{dx} + 1 = 0$

Options :

1. ✔ $c_1 \log x - x + c_2$

2. ✖ $c_1 \log x + x + c_2$

3. ✖ $c_1 x - \log x + c_2$

4. ✖ $c_1 x \log x + c_2$

Question Number : 68 Question Id : 14558910361 Display Question Number : Yes Is Question

Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

A particular integral of the differential equation $x^2\frac{d^2y}{dx^2}+4x\frac{dy}{dx}+2y=e^x$ is

— تفرقی مساوات کا خصوصی تکمیل $x^2\frac{d^2y}{dx^2}+4x\frac{dy}{dx}+2y=e^x$

Options :

1. ✖ x^2e^x

2. ✖ $x\,e^x$

3. ✖ x^2e^{-x}

4. ✔ $x^{-2}e^x$

Question Number : 69 Question Id : 14558910362 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The general solution of the differential equation $(p\,x-y)(py+x)=a^2p$, where $p=\frac{dy}{dx}$ is

تفرقی مساوات $(px-y)(py+x)=a^2p^2$ کا عمومی حل جہاں $p=\frac{dy}{dx}$ ہے۔

Options :

$y = cx^2 - a^2c(c+1)$

1. ✖

$y^2 = cx^2 - a^2\left(\frac{c}{c+1}\right)$

2. ✔

$y^2 = cx - a^2(c+1)$

3. ✖

$y^2 = cx^2 + a^2c(c+1)$

4. ✖

Question Number : 70 Question Id : 14558910363 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The general solution of the differential equation $\frac{dy}{dx} - \frac{dx}{dy} = \frac{x}{y} - \frac{y}{x}$ is

تفرقی مساوات کا عمومی حل $\frac{dy}{dx} - \frac{dx}{dy} = \frac{x}{y} - \frac{y}{x}$

Options :

$x^2 + y^2 = c$, c is arbitrary constant

$x^2+y^2=c$ ، c ایک اختیاری مستقل ہے

1. ✖

2. ✖

$xy^2 = c$, c is arbitrary constant

$xy^2 = c$ ، c ایک اختیاری مستقلہ ہے۔

$x^2 - y^2 = c$, c is arbitrary constant

3. ✔ $x^2 - y^2 = c$ ، c ایک اختیاری مستقلہ ہے

$x^2 + xy + y^2 = c$, c is arbitrary constant

4. ✖ $x^2 + xy + y^2 = c$ ، c ایک اختیاری مستقلہ ہے

Question Number : 71 Question Id : 14558910364 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The direction cosines of the line joining the points (1,2,−3) and (2,−3,1) are

نقاط (1,2,−3) اور (2,−3,1) سے جڑنے والے خط کے سمتی کوسائنیں ـــــ ہیں۔

Options :

1. ✖ 1,−5,4

2. ✖ 3,−1,2

3. ✔ $\frac{1}{\sqrt{42}}, \frac{-5}{\sqrt{42}}, \frac{4}{\sqrt{42}}$

4. ✖ $\frac{3}{\sqrt{14}}, \frac{-1}{\sqrt{14}}, \frac{2}{\sqrt{14}}$

Question Number : 72 Question Id : 14558910365 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The equation of the plane passing through the origin and containing the lines whose direction ratios are proportional to $-1,2,2$ and $2,3,-1$ is

$-1, 2, 2$ مبدا سے گذرنے والی مستوی کی مساوات جو نقاط

اور $2, 3, -1$ سے منسلک خطوط کے سمتی تناسب کے متناسب ہوتے ہیں۔

Options :

1. ✖ $8x+3y+7z=0$

2. ✖ $3x-8y+7z=0$

3. ✖ $7x-8y+3z=0$

4. ✔ $8x-3y+7z=0$

Question Number : 73 Question Id : 14558910366 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The angle between the planes $2x-y+z=1$ and $x+y+2z=3$ is

$2x-y+z=1$ اور $x+y+2z=3$ سطحوں کے درمیانی زاویہ ـــــ

Options :

1. ✗ $\frac{\pi}{2}$

2. ✓ $\frac{\pi}{3}$

3. ✗ $\frac{\pi}{4}$

4. ✗ $\frac{\pi}{6}$

Question Number : 74 Question Id : 14558910367 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The centre of the circle $x^2+y^2+z^2=9, 2x+3y+2z=9$ is

دائرہ $2x+3y+2z=9$, $x^2+y^2+z^2=9$ کا مرکز ـــــ

Options :

1. ✔ $\left(\frac{18}{17}, \frac{27}{17}, \frac{18}{17}\right)$

2. ✖ $\left(\frac{9}{17}, \frac{27}{34}, \frac{9}{17}\right)$

3. ✖ $(4,\ 3,\ 1)$

4. ✖ $(1,\ 3,\ 4)$

Question Number : 75 Question Id : 14558910368 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The condition for the plane $lx+my+nz=p$ to touch the sphere $x^2+y^2+z^2=a^2$, is

$lx+my+nz=p$ سطح کرہ $x^2+y^2+z^2=a^2$ کو مس کرنے کے لیے شرط ہے ——

Options :

1. ✖ $p^2(l^2+m^2+n^2)=a^2$

2. ✖ $l^2+m^2+n^2=a^2-p^2$

3. ✔

$a^2(l^2+m^2+n^2)=p^2$

$l^2+m^2+n^2=a^2p^2$

4. ✖

Question Number : 76 Question Id : 14558910369 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If (l_1,m_1,n_1) and (l_2,m_2,n_2) are direction cosines of two lines and θ is the angle between them, then $l_1.l_2+m_1.m_2+n_1.n_2=$

اگر (l_1,m_1,n_1) اور (l_2,m_2,n_2) دو خطوط کے سمتی کوسائنس ہیں اور ان کا درمیانی زاویہ θ ہے۔ تب

$l_1.l_2+m_1.m_2+n_1.n_2=$

Options :

1. ✔ $\cos\theta$

2. ✖ $\sin\theta$

3. ✖ $\tan\theta$

4. ✖ 2

Question Number : 77 Question Id : 14558910370 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If a plane meets the coordinate axes X,Y,Z respectively at A,B,C such that the centroid of the triangle ABC is the point (P,Q,R), then the equation of the plane is

اگر A, B, C پر ایک مستوی بالترتیب x, y, z محضات پر ملتا ہے۔ اس طرح کہ مثلث ABC کا مرکز وسطانیہ نقطہ (P, Q, R) ہے۔ تب مستوی کی مساوات ہے —

Options :

1. ✖ $Px+Qy+Rz=3$

2. ✖ $\frac{x}{P}+\frac{y}{Q}+\frac{z}{R}=1$

3. ✖ $Px+Qy+Rz=1$

4. ✔ $\frac{x}{P}+\frac{y}{Q}+\frac{z}{R}=3$

Question Number : 78 Question Id : 14558910371 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If the x-coordinate of a point P on the line joining the points (2,2,1) and (5,1,-2) is 4, then its y-coordinate and z-ordinates are respectively.

اگر نقطہ "P" کا x-محدد نقاط (2,2,1) اور (5,1,-2) کو جوڑتا ہے۔ تب اسکے y-محدد اور z-محدد باترتیب ہیں۔

Options :

1. ✔ $\frac{4}{3}, -1$

2. ✖ $\frac{-4}{3}, 1$

3. ✖ $\frac{4}{3}, \frac{-1}{3}$

4. ✖ $\frac{-4}{3}, \frac{1}{3}$

Question Number : 79 Question Id : 14558910372 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The image of the point (3,5,7) with respect to the plane $2x+y+z=6$ is

$2x+y+z=6$ مستوی کے حوالے سے نقطہ (3,5,7) کا شبیہ ہے۔

Options :

1. ✖ (2, 1, 1)

2. ✔ (−5, 1, 3)

3. ✖ (5, 6, −8)

4. ✖ (1, 4, 6)

Question Number : 80 Question Id : 14558910373 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The equation of the line passing through the point (−6, 4, 1) and perpendicular to the plane $3x-2y+5z+8=0$ is

نقطہ (−6,4,1) سے گذرتی ہوئی خط کی مساوات کیا ہے اور مستوی $3x-2y+5z+8=0$ پر عموداً ہوتی ہے۔

Options :

1. ✖

$$\frac{x-6}{3}=\frac{y-4}{-2}=\frac{z+1}{5}$$

$$\frac{x+6}{-3}=\frac{y-4}{2}=\frac{z-1}{5}$$

2. ✖

$$\frac{x+6}{3}=\frac{y-4}{-2}=\frac{z-1}{5}$$

3. ✔

$$\frac{x-6}{5}=\frac{y+4}{2}=\frac{z+6}{3}$$

4. ✖

Question Number : 81 Question Id : 14558910374 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The centre of the sphere $(x+a)(x-a)+(y+b)(y-b)+(z+c)(z-c)=0$ is

د — 0 مرکز کرہ $(x+a)(x-a)+(y+b)(y-b)+(z+c)(z-c)=0$

Options :

(a, b, c)

1. ✖

$(-a,-b,-c)$

2. ✖

$(0, 0, 0)$

3. ✔

4. ✖ $\left(\frac{a^2}{2}, \frac{b^2}{2}, \frac{c^2}{2}\right)$

Question Number : 82 Question Id : 14558910375 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The equation of the cone with vertex at the origin and whose base curve is $x^2+y^2=4,\ z=2$

مخروط کی مساوات جسکا راس مبدا پر ہے - اور اسکا منحنی قاعدہ $z=2, x^2+y^2=4$ ہے۔

Options :

1. ✔ $x^2+y^2=z^2$

2. ✖ $x^2+y^2=2z$

3. ✖ $x^2+y^2+z-2=0$

4. ✖ $(x-2)^2+y^2+z^2-4=0$

Question Number : 83 Question Id : 14558910376 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction

Time : 0

The equation of the sphere through the circle $x^2+y^2=a^2, z=0$ and the point (x_1,y_1,z_1)

نقطہ (x_1,y_1,z_1) اور دائرہ $x^2+y^2=a^2, z=0$ سے گزرنے والے کرہ کی مساوات ہے۔

Options :

1. ✔ $(x^2+y^2+z^2-a^2)z_1+(a^2-x_1^2-y_1^2-z_1^2)z=0$

2. ✖ $(x^2+y^2+z^2-z_1^2)+(a^2-x_1^2-y_1^2)z=0$

3. ✖ $(x^2+y^2+z^2-z_1)a^2+(a^2-x_1^2-y_1^2-z_1^2)z=0$

4. ✖ $x^2+y^2+z^2-x_1x-y_1y-z_1z+a^2=0$

Question Number : 84 Question Id : 14558910377 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The length of the tangent drawn from the point $(3, 1, -1)$ to the sphere $x^2+y^2+z^2-3x+5y+7=0$ is

(3) نقطہ $(3,1,-1)$ سے کرہ $x^2+y^2+z^2-3x+5y+7=0$ پر کھینچی گئی مماس کی لمبائی ہے۔

Options :

1. ✔ $\sqrt{14}$

2. ✖ 10

3. ✖ 14

4. ✖ $\sqrt{10}$

Question Number : 85 Question Id : 14558910378 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If the cone $ax^2+2by^2+3cz^2+2fyz+2gzx+2hxy=0$ has three mutually perpendicular generators, then $a+2b+3c=$

اگر مخروط $ax^2+2by^2+3cz^2+2fyz+2gzx+2hxy=0$ میں تین باہمی عمودی مولد ہیں۔ تب $=a+2b+3c$

Options :

1. ✖ 3

2. ✖ 1

3.

0

6

4.

Question Number : 86 Question Id : 14558910379 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If G is a group of order 48, then G cannot have a sub group of order

اگر 48 درجہ والا گروپ G ہے۔ تب G میں اس درجہ کے
تحت گروپ نہیں پائے جائے۔

Options :

16

1.

32

2.

24

3.

8

4.

Question Number : 87 Question Id : 14558910380 Display Question Number : Yes Is Question

Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The order of the element $\bar{9}$ in the group $(\mathbb{Z}_{11}^*, \cdot_{11})$, where $\mathbb{Z}_{11}^* = \mathbb{Z}_{11} - \{\bar{0}\}$, is

$(Z_{11}^*, \cdot_{11})$ گروپ میں 9 عناصر کا درجہ ہے —

جہاں $Z_{11}^* = Z_{11} - \{\bar{0}\}$

Options :

1. ✔ 5

2. ✖ 6

3. ✖ 7

4. ✖ 9

Question Number : 88 Question Id : 14558910381 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The Inverse of the element $\overline{11}$ in the group $(\mathbb{Z}_{17}^*, \cdot_{17})$, where $\mathbb{Z}_{17}^* = \mathbb{Z}_{17} - \{\overline{0}\}$, is

$(Z_{17}^*, \cdot_{17})$ گروپ میں $\overline{11}$ عنصر کا معکوس ہے۔

جہاں $Z_{17}^* = Z_{17} - \{0\}$

Options :

1. ✗ $\overline{9}$

2. ✗ $\overline{11}$

3. ✓ $\overline{14}$

4. ✗ $\overline{15}$

Question Number : 89 Question Id : 14558910382 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Let $[x]$ denote the greatest integer function. If a function f from the group $(\mathbb{R},+)$ to the group $(\mathbb{Z},+)$ is defined by $f(x)=[x]$ for all $x \in \mathbb{R}$, then

فرض کرو کہ $[x]$ اعظم ترین تکمیلی تفاعل کو ظاہر کرتا ہے۔ اگر ایک تفاعل گروپ $(R,+)$ سے گروپ $(Z,+)$ تک اسطرح بیان کیا گیا کہ $f(x)=[x]$ تمام $x \in R$ کے لیے۔ تب

Options :

1. ✖ f is a group homomorphism and $\ker f = [0,1]$

f ایک ہم ماراغی گروپ ہے اور $\ker f = [0,1]$

2. ✖ f is a group homomorphism and $\ker f = [-1,0]$

f ایک ہم ماراغی گروپ ہے اور $\ker f = [-1,0]$

3. ✔ f is not a group homomorphism

f ایک ہم ماراغی گروپ نہیں ہے

4. ✖ f is an onto group homomorphism

f ایک برتفاعل ہم ماراغی گروپ ہے۔

Question Number : 90 Question Id : 14558910383 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The number of units in the ring $(\mathbb{Z}_{11}, +_{11}, \cdot_{11})$ is

حلقہ میں اکائیوں کی تعداد — ہے $(\mathbb{Z}_{11}, +_{11}, \cdot_{11})$

Options :

1. ✔ 10

2. ✖ 8

3. ✖ 6

4. ✖ 4

Question Number : 91 Question Id : 14558910384 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If the number of elements of a set A is 5 then the number of binary operations that can be defined on A is

اگر سیٹ A کے عناصر کی تعداد 5 ہے۔ بٹ ذو عاملوں کی تعداد جو A پر بیان کی گئی ہے۔

Options :

1. ✖ 2^5

2. ✔ 5^{25}

3. ✖ 25^5

4.

5^5

✖

Question Number : 92 Question Id : 14558910385 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In the group $(\mathbb{Z}_{18}, +_{18})$, the inverse of the element $(\overline{14} \cdot_{18} \overline{11})$ is

$(\overline{14} \cdot_{18} \overline{11})$ گروپ $(Z_{18}, +_{18})$ میں عنصر کا معکوس ہے۔

Options :

1. $\overline{14}$ ✖

2. $\overline{11}$ ✔

3. $\overline{7}$ ✖

4. $\overline{17}$ ✖

Question Number : 93 Question Id : 14558910386 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The inverse of the permutation $\begin{pmatrix} a & b & c & d & e \\ d & e & c & b & a \end{pmatrix}$ defined on the set $S=\{a,b,c,d,e\}$ is

مبادلہ $\begin{pmatrix} a & b & c & d & e \\ d & e & c & b & a \end{pmatrix}$ کا معکوس $S=\{a,b,c,d,e\}$ سیٹ پر اس طرح بیان کیا گیا ہے ——

Options :

1. ✖ $\begin{pmatrix} a & b & c & d & e \\ e & a & c & b & d \end{pmatrix}$

2. ✖ $\begin{pmatrix} a & b & c & d & e \\ b & e & c & a & d \end{pmatrix}$

3. ✔ $\begin{pmatrix} a & b & c & d & e \\ e & d & c & a & b \end{pmatrix}$

4. ✖ $\begin{pmatrix} a & b & c & d & e \\ e & d & c & b & a \end{pmatrix}$

Question Number : 94 Question Id : 14558910387 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

A cyclic group among the following is

ذیل میں یہ دوری گروپ ہے۔

Options :

1. ✖ $\mathbb{Z}_{12} \times \mathbb{Z}_{8}$

2. ✖ $\mathbb{Z}_{4} \times \mathbb{Z}_{9}$

3. ✔ $\mathbb{Z}_{16} \times \mathbb{Z}_{9}$

4. ✖ $\mathbb{Z}_{16} \times \mathbb{Z}_{22}$

Question Number : 95 Question Id : 14558910388 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If $\mathbb{Z}_7^* = \mathbb{Z}_7 - \{\bar{0}\}$, then the solution of the equation $x \bullet_7 \bar{5} = \bar{6}$ in the group $(\mathbb{Z}_7^*, \bullet_7)$ is

اگر $z_7^* = z_7 - \{\bar{0}\}$، تب گروپ $(z_7^*, \cdot_7)$ میں

مساوات $x \cdot_7 \bar{5} = \bar{6}$ کا حل ــــ ہے۔

Options :

1. ✖

$\bar{6}$

2. ✔ $\bar{4}$

3. ✖ $\bar{3}$

4. ✖ $\bar{2}$

Question Number : 96 Question Id : 14558910389 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In the permutation group (S_8, o), $(2\ 4\ 1\ 6\ 8\ 3)\ o\ (5\ 3\ 7\ 2\ 4\ 1) =$

$= (2\ 4\ 1\ 6\ 8\ 3)\ o\ (5\ 3\ 7\ 2\ 4\ 1)$ مبادلہ گروپ میں (S_8, o)

Options :

1. ✖ $(3\ 7\ 4\ 5\ 6)\ o\ (1\ 8\ 2)$

2. ✔ $(1\ 5\ 2)\ o\ (3\ 7\ 4\ 6\ 8)$

3. ✖ $(1\ 2\ 5)\ o\ (3\ 7\ 6\ 4\ 8)$

(3 5 2 6 8) o (1 4 7)

4. ✖

Question Number : 97 Question Id : 14558910390 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The number of elements in the subgroup $<\bar{6}>$ in the group $(\mathbb{Z}_{21}, +_{21})$ is

گروپ $(Z_{21}, +_{21})$ میں $<\bar{6}>$ ذیلی گروپ میں عناصر کی تعداد ——— ہے۔

Options :

1. ✖ 1

2. ✖ 3

3. ✔ 7

4. ✖ 21

Question Number : 98 Question Id : 14558910391 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In the group $(\mathbb{Z},+)$, if $(12\,\mathbb{Z})\cap(18\mathbb{Z}) = n\mathbb{Z}$ then $n =$

$nZ = (12\,Z) \cap (18\,Z)$ اگر، گروپ میں $(Z,+)$

—— $n =$ تب

Options :

1. ✖ 6

2. ✖ 8

3. ✔ 36

4. ✖ 216

Question Number : 99 Question Id : 14558910392 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Let $\mathbb{Z}$ be the group of all integers under addition and $A=\{1,\omega,\omega^2\}$ be the group of all cube roots of 1 under multiplication. Define a homomorphism $f:\mathbb{Z}\to A$ such that $f(n)=\omega^n$ for all $n\in\mathbb{Z}$. Then the kernel f =

فرض کرو کہ تمام صحیح اعداد گروپ $\mathbb{Z}$ عملِ جمع کے تحت پایا جاتا ہے۔
اور $A=\{1,\omega,\omega^2\}$ ایک گروپ ہے جو تمام [illegible] جذروں

Options :

1. ✖ $\mathbb{Z}$

2. ✔ $3\mathbb{Z}$

3. ✖ $\{0\}$

4. ✖ $8\mathbb{Z}$

Question Number : 100 Question Id : 14558910393 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The number of generators of a cyclic group of order 45 is

45 درجہ والے دوری گروپ کے مولدوں کی تعداد ___ ہے۔

Options :

1. ✖ 14

2. ✔ 24

3. ✖ 18

4. ✖ 12

Question Number : 101 Question Id : 14558910394 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In the group (S_7, o), an even permutation among the following is

گروپ (S_7, o) میں، ذیل میں کونسا جفت مبادلہ ہے۔

Options :

1. ✖ $\begin{pmatrix} 1 & 2 & 3 & 4 & 5 & 6 & 7 \\ 3 & 5 & 2 & 6 & 4 & 1 & 7 \end{pmatrix}$

2. ✔ $\begin{pmatrix} 1 & 2 & 3 & 4 & 5 & 6 & 7 \\ 7 & 5 & 4 & 3 & 1 & 6 & 2 \end{pmatrix}$

3. ✖ $\begin{pmatrix} 1 & 2 & 3 & 4 & 5 & 6 & 7 \\ 5 & 4 & 1 & 6 & 2 & 3 & 7 \end{pmatrix}$

$$\begin{pmatrix} 1 & 2 & 3 & 4 & 5 & 6 & 7 \\ 3 & 6 & 7 & 5 & 2 & 4 & 1 \end{pmatrix}$$

4. ✖

Question Number : 102 Question Id : 14558910395 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If R is a Boolean ring as well as an integral domain, then the number of elements in R is

اگر R ایک بولین حلقہ کے ساتھ ساتھ ایک تکمیلہ علاقہ ہے۔
تب R میں عناصر کی تعداد ـــــ ہے۔

Options :

1. ✖ 1

2. ✔ 2

3. ✖ 3

4. ✖ Infinite

Question Number : 103 Question Id : 14558910396 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

On the set of natural numbers N, the one that is not a binary operation among the following is

N طبعی اعداد کے سیٹ میں ذیل کا کونسا عدد دوعملی نہیں ہے۔

Options :

1. ✖ $m*n = m+n-1$ for all m, n $\in$ N

تمام $m,n \in N$ کیلئے

2. ✔ $m*n = m^2+n^2-4$ for all m, n $\in$ N

تمام $m,n \in N$ کے لئے

3. ✖ $m*n = m+n+8$ for all m, n $\in$ N

تمام $m,n \in N$ کے لئے

4. ✖ $m*n = mn+m-n$ for all m, n $\in$ N

تمام $m,n \in N$ کے لئے

Question Number : 104 Question Id : 14558910397 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If $f=\begin{pmatrix}1&2&3&4&5&6\\3&2&1&5&4&6\end{pmatrix}$ and $g=\begin{pmatrix}1&2&3&4&5&6\\4&5&1&6&3&2\end{pmatrix}$ are two permutations

defined on the set $S=\{1,2,3,4,5,6\}$, then $g^{-1}\,o\,f^{-1}=$

اگر دو متبادلے $g=\begin{pmatrix}1&2&3&4&5&6\\4&5&1&6&3&2\end{pmatrix}$ اور $f=\begin{pmatrix}1&2&3&4&5&6\\3&2&1&5&4&1\end{pmatrix}$

سیٹ $S=\{1,2,3,4,5,6\}$ پر اسطرح بیان کئے گئے ہیں۔ تب

$g^{-1}of^{-1}=$ —

Options :

1. $\begin{pmatrix}1&2&3&4&5&6\\5&6&3&2&1&4\end{pmatrix}$ ✔

2. $\begin{pmatrix}1&2&3&4&5&6\\5&4&6&2&3&1\end{pmatrix}$ ✖

3. $\begin{pmatrix}1&2&3&4&5&6\\2&6&3&5&1&4\end{pmatrix}$ ✖

4. $\begin{pmatrix}1&2&3&4&5&6\\1&3&2&4&6&5\end{pmatrix}$ ✖

Question Number : 105 Question Id : 14558910398 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction

Time : 0

Among the following, the number that cannot be the characteristic of a field is

ذیل میں یہ عدد میدان کے خصوصیات میں سے ہیں۔

Options :

1. ✖ 31

2. ✖ 41

3. ✔ 51

4. ✖ 61

Question Number : 106 Question Id : 14558910399 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Among the following, the one that is an integral domain but not a field is

ذیل میں یہ ایک تکمیلی علاقہ ہے لیکن میدان نہیں۔

Options :

1. ✖ The set of all real numbers

تمام حقیقی اعداد کا سیٹ

The set of all rational numbers

تمام ناطق اعداد کا سیٹ

2. ✖

The set of all integers

تمام صحیح اعداد کا سیٹ

3. ✔

The set of all even integers

تمام جفت صحیح اعداد کا سیٹ

4. ✖

Question Number : 107 Question Id : 14558910400 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The number of non zero, zero divisors of the ring $(\mathbb{Z}_6, \oplus_6, \odot_6)$ is

حلقہ $(\mathbb{Z}_6, \oplus_6, \odot_6)$ کے صفر مقسوم علیہ کے غیر صفر کی تعداد

Options :

1. ✖ 0

2. ✖ 2

3. ✔ $\bar{3}$

4. ✖ $\bar{5}$

Question Number : 108 Question Id : 14558910401 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In the ring $(\mathbb{Z}_{15}, +_{15}, \bullet_{15})$, $(\bar{7} \bullet_{15} \bar{9}) +_{15} (\bar{8} \bullet_{15} \bar{11}) =$

في الحلقة $(Z_{15}, +_{15}, \cdot_{15})$, $(\bar{7} \cdot_{15} \bar{9}) +_{15} (\bar{8} \cdot_{15} \bar{11}) =$

Options :

1. ✔ $\bar{1}$

2. ✖ $\bar{7}$

3. ✖ $\bar{11}$

4. ✖ $\bar{13}$

Question Number : 109 Question Id : 14558910402 Display Question Number : Yes Is Question

Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In the ring $(\mathbb{Z},+,\bullet)$, an ideal which is prime but not maximal is

حلقہ $(\mathbb{Z},+,\bullet)$ میں ایک آئیڈیل جو مفرد ہے لیکن اعظم ترین نہیں ہے ___

Options :

1. ✖ $4\mathbb{Z}$

2. ✖ $9\mathbb{Z}$

3. ✖ $11\mathbb{Z}$

4. ✔ $\{0\}$

Question Number : 110 Question Id : 14558910403 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Let $f:(\mathbb{Z},+,\cdot)\to(\mathbb{Z}_8,+_8,\cdot_8)$ be the ring homomorphism defined by $f(n)=\bar{r}$ where $0\le r\le 7$ and r is the remainder when n is divided by 8, Then the one that is not a sub ring of kernel f among the following is

Options :

1. ✔ $4\mathbb{Z}$

2. ✖ $8\mathbb{Z}$

3. ✖ $16\mathbb{Z}$

4. ✖ $32\mathbb{Z}$

Question Number : 111 Question Id : 14558910404 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The limit of the sequence $\left\{\frac{(-1)^n}{n}+1\right\}$ is

$\left\{\frac{(-1)^n}{n}+1\right\}$ کی اشیا — ہے

Options :

1. ✖ 0

2. ✖ 2

3. ✔ 1

4. ✖ ∞

Question Number : 112 Question Id : 14558910405 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Among the following sequences, the unbounded sequence is

ذیل کے تواتر میں غیر محدود تواتر — ہے

Options :

1. ✖ $\left\{\frac{1}{n} / n \geq 1\right\}$

2.

$\left\{\frac{(-1)^n}{n} / n \geq 1\right\}$

✖

$\{(-1)^n n / n \geq 1\}$

3. ✔

$\left\{\frac{n}{n+1} / n \geq 1\right\}$

4. ✖

Question Number : 113 Question Id : 14558910406 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which one of the following is not true?

ذیل میں یہ بیان غلط ہے ۔

Options :

Every convergent sequence is bounded.

ہر تقاربی تواتر محدود ہے

1. ✖

Every monotonic sequence bounded above is convergent.

ہر ایک سمر تواتر محدود ... کے اوپر تقاربی ہے

2. ✖

Every bounded sequence is convergent.

ہر محدود لوا تر ایک تقاربی ہے

3. ✔

Every Cauchy sequence is bounded.

ہر کاچیس لوا تر محدود ہے

4. ✖

Question Number : 114 Question Id : 14558910407 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Among the following series, the divergent series is

ذیل کے لوا تروں میں — متباعد سلسلہ ہے

Options :

$\sum_{n=1}^{\infty} \frac{1}{n^2}$

1. ✖

$\sum_{n=1}^{\infty} \frac{(-1)^n}{n}$

2. ✖

$\sum_{n=1}^{\infty} \frac{1}{n}$

3. ✔

4. ✖

$$\sum_{n=1}^{\infty} \frac{1}{n^5}$$

Question Number : 115 Question Id : 14558910408 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The function $f(x)=\frac{1+\sin 2x}{1-\sin 2x}$ is discontinuous at $x =$

تفاعل $f(x)=\frac{1+\sin 2x}{1-\sin 2x}$ ایک غیر مسلسل ہے "x" پر،

Options :

1. $\frac{\pi}{2}$ ✖

2. $\frac{\pi}{3}$ ✖

3. π ✖

4. $\frac{\pi}{4}$ ✔

Question Number : 116 Question Id : 14558910409 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

. The point c of the Lagrange's mean value theorem for the function $f(x)=\log x$ in $(1,e)$ is

$(1,e)$ میں تفاعل $f(x)$ کے لئے لاگرانجس کا درمیانی قدر مسئلہ کا نقطہ 'c' ۔۔۔ ہے۔

Options :

1. $\frac{e}{2}$ ✖

2. $e-1$ ✔

3. 1.5 ✖

4. $\frac{e+1}{2}$ ✖

Question Number : 117 Question Id : 14558910410 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

$$\int_1^{\sqrt{3}} \frac{dx}{1+x^2} =$$

Options :

1. $\frac{\pi}{12}$ ✔

2. ✖ $\frac{\pi}{3}$

3. ✖ $\frac{\pi}{4}$

4. ✖ $\frac{\pi}{2}$

Question Number : 118 Question Id : 14558910411 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The sequence $\left\{\frac{n}{n+1} / n \geq 1\right\}$ is

ترتیب $\left\{\frac{n}{n+1} / n \geq 1\right\}$ ہے —

Options :

bounded below by zero and not bounded above

1. ✖ صفر سے نیچے محدود اور اوپر محدود نہیں۔

bounded above by $\frac{1}{2}$ and not bounded below

2. ✖ ½ کے اوپر محدود اور نیچے محدود نہیں۔

both bounded above and bounded below

اوپر اور نیچے دونوں محدود

3. ✔

not bounded above and not bounded below

نہ اوپر محدود اور نہ نیچے محدود

4. ✖

Question Number : 119 Question Id : 14558910412 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The function $f:[-1,1]\to\mathbb{R}$ defined by $f(x)=|x|$ for $x\in[-1,1]$ is

$f(x)=|x|$ کو اس طرح بیان کیا گیا ہے $f:[-1,1]\to R$ تفاعل

$x\in[-1,1]$ کے لیے ۔ ہے

Options :

continuous for all $x\in\{\mathbb{R}-0\}$

تمام $x\in\{R-0\}$ کے لیے مسلسل

1. ✖

differentiable at every $x\neq0$

ہر ایک $x\neq0$ پر تفرقی

2. ✔

3. ✖

differentiable only at $x=0$

صرف $x=0$ پر تفرق

discontinuous on $[-1,1]$

$[-1,1]$ پر غیر مسلسل

4. ✖

Question Number : 120 Question Id : 14558910413 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

. The series $\sum_{n=1}^{\infty} x^n$ is

یہ $\sum_{n=1}^{\infty} x^n$ ہے

Options :

converges for all x *in* $\mathbb{R}$

$\mathbb{R}$ میں تمام x کیلئے تقاربی

1. ✖

converges for all $|x|<1$

تمام $|x|<1$ کیلئے تقاربی

2. ✔

diverges for all x *in* $\mathbb{R}$

$\mathbb{R}$ میں تمام x کیلئے متباعد

3. ✖

Converges to e^x for any $x > 0$

کسی بھی $x>0$ کیلئے e^x تک تقاربی

4. ✖

Question Number : 121 Question Id : 14558910414 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Let f be a bounded function defined on $[a,b]$. Then for any two partitions P_1 and P_2 of $[a,b]$

فرض کرو کہ f ایک محدود تفاعل $[a,b]$ پر ہے اسطرح تعارف کیا گیا ہے $[a,b]$ کے کسی بھی دو حصّوں P_1 اور P_2 کیلئے ——

Options :

1. ✔ $L(P_1, f) \le U(P_2, f)$

2. ✖ $L(P_1, f) \le L(P_2, f)$

3. ✖ $U(P_2, f) \le U(P_1, f)$

4. ✖ $L(P_2, f) \ge U(P_2, f)$

Question Number : 122 Question Id : 14558910415 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Define f on $[0,1]$ by $f(x)=\begin{cases}1, \text{if } x \text{ is rational}\\ -1, \text{if } x \text{ is irrational}\end{cases}$.

Then which one of the following is true?

اگر f کو $[0,1]$ پر اس طرح تعارف کیا گیا ہے
$f(x)=\begin{cases}1, & \text{اگر } x \text{ ناطق ہے}\\ -1, & \text{اگر } x \text{ غیر ناطق ہے}\end{cases}$ تب ذیل میں سے صحیح ہے۔

Options :

f is bounded but not Riemann integrable

f محدود ہے لیکن ریمن تکمیلہ نہیں

1. ✔

f is unbounded and not Riemann integrable

f غیر محدود ہے اور ریمن تکمیلہ نہیں

2. ✖

f is bounded and Riemann integrable

f محدود ہے اور ریمن تکمیلہ ہے

3. ✖

4. ✖

f is neither bounded nor Riemann integrable

f نہ تو محدود ہے اور نہ ریمن تکمیل

Question Number : 123 Question Id : 14558910416 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

$$\lim_{x \to 0} \frac{16^x - 4^x}{x} =$$

Options :

1. ✖ 4

2. ✖ $\log_e 2$

3. ✔ $2\log_e 2$

4. ✖ $\frac{1}{4}$

Question Number : 124 Question Id : 14558910417 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Let [x] denote the greatest integer function. Then the points of discontinuity of the function $f(x)=[x], x \in \mathbb{R}$ are

فرض کرو کہ [x] اعظم ترین تکمیلی تفاعل کو ظاہر کرتا ہے۔
تب تفاعل $f(x)=[x]$ ، $x \in R$ کا غیر متسلسل کے نقاط ہیں۔

Options :

zero and one only

صفر اور صرف ایک

1. ✖

the set of integers

صحیح اعداد کا سیٹ

2. ✔

even integers only

صرف جفت صحیح اعداد

3. ✖

all real numbers which are not integers.

تمام حقیقی اعداد جو صحیح اعداد نہیں۔

4. ✖

Question Number : 125 Question Id : 14558910418 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The series converges to $\sum_{n=1}^{\infty} \frac{1}{n(n+1)}$

توا تر $\sum_{n=1}^{\infty} \frac{1}{n(n+1)}$ تقارب ہے ۔

Options :

1. ✔ 1

2. ✖ $\frac{1}{2}$

3. ✖ $\frac{\pi^2}{6}$

4. ✖ 2

Question Number : 126 Question Id : 14558910419 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If f is defined on $\mathbb{R}$ by $f(x)=\begin{cases}\frac{1}{1-e^{1/x}}, & \text{if } x \neq 0 \\ 0, & \text{if } x = 0\end{cases}$, then f is

$f(x)=\begin{cases}\frac{1}{1-e^{x}} & x\neq 0 \text{ اگر} \\ 0 & x=0 \text{ اگر}\end{cases}$ اگر f کو $\mathbb{R}$ پر اسطرح تعارف کیا گیا کہ

f تب ہے ۔

Options :

continuous for all $x \in \mathbb{R}$

تمام $x \in \mathbb{R}$ کیلئے مسلسل

1. ✔

discontinuous at $x=0$ only

صرف $x=0$ پر غیر مسلسل

2. ✖

continuous at $x=0$

$x=0$ پر مسلسل

3. ✖

discontinuous for all $x \neq 0$

تمام $x \neq 0$ کیلئے غیر مسلسل

4. ✖

Question Number : 127 Question Id : 14558910420 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If f and g are differentiable functions defined on $[a,b]$ and if $f'(x)=g'(x)$ for all $x \in [a,b]$, then $f-g$ is

اگر f اور g تفرقی تفاعل $[a,b]$ پر اسطرح معارف کیا گیا ہے۔
اور اگر $f'(x)=g'(x)$ تمام $x \in [a,b]$ کیلئے۔ تب $f-g$ ہے۔

Options :

a zero function

ایک صفر تفاعل

1. ✖

a constant function

ایک مستقل تفاعل

2. ✔

a decreasing function

ایک گھٹتا ہوا تفاعل

3. ✖

an increasing function

ایک بڑھتا ہوا تفاعل

4. ✖

Question Number : 128 Question Id : 14558910421 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If $\lim_{x\to 0}\frac{\sin px}{\tan 3x} = 4$, then p =

اگر $\lim_{x\to 0}\frac{\sin px}{\tan 3x} = 4$ تب p =

Options :

6

1. ✖

2. ✖ 9

3. ✔ 12

4. ✖ 15

Question Number : 129 Question Id : 14558910422 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Let $f:[a,b]\to\mathbb{R}$ and $g:[a,b]\to\mathbb{R}$ be defined by $f(x)=\frac{1}{x^2}$ and $g(x)=\frac{1}{x}$, for all $x\in[a,b]$, $0<a<b$. Then the value of c in Cauchy's mean value theorem is

فرض کرو کہ $g:[a,b]\to R$ اور $f:[a,b]\to R$ اصطرح بیان کیا گیا ہے کہ $f(x)=\frac{1}{x^2}$ اور $g(x)=\frac{1}{x}$ تمام $x\in[a,b]$ کے لیے جہاں $0<a<b$ ہے۔ تب کوشی کی وسطی قدر کے مسئلہ میں c کی قدر ہے ——

Options :

1. ✖ $\frac{ab}{a+b}$

2. ✔

$\frac{2ab}{a+b}$

3. ✖ $\frac{a+b}{2}$

4. ✖ $\frac{a+b}{4}$

Question Number : 130 Question Id : 14558910423 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Let $f:\mathbb{R}\to\mathbb{R}$ be defined by $f(x)=\begin{cases}\frac{1}{x}, & \text{if } x\neq 0\\ 0, & \text{if } x=0\end{cases}$. Then

فرض کرو کہ $f:R\to R$ اسطرح بیان کیا گیا ہے

— تب $f(x)=\begin{cases}\frac{1}{x}, & \text{اگر } x\neq 0\\ 0, & \text{اگر } x=0\end{cases}$

Options :

f is continuous at $x=0$

f پر $x=0$ مسلسل ہے

1. ✖

2. ✖

f is discontinuous at all irrationals

تمام غیر ناطق پر f غیر مسلسل ہے

fof is continuous only at $x = 0$

fof صرف $x=0$ پر مسلسل ہے

3. ✖

fof is continuous on $\mathbb{R}$

fof پر $\mathbb{R}$ مسلسل ہے۔

4. ✔

Question Number : 131 Question Id : 14558910424 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If V is a finite dimensional vector space over the field F of dimension 'n', then

اگر V ابعاد والے میدان F پر ایک محدود ابعادی والی سمتی فضا ہے۔

تب ——

Options :

A subset of V with less than or equal to n elements is linearly independent.

V کا سیٹ جو n عناصر کے مساوی یا چھوٹا ہوتا ہے۔ وہ خطی غیر تابع ہے۔

1. ✖

A subset of V with more than n elements is linearly dependent.

"V" کا سبٹ جو n عناصر سے زیادہ ہے - وہ خطی تابع ہے

2. ✔

Any linearly dependent subset of V should contain '0'

کسی بھی V کا خطی تابع تحت سیٹ میں صفر ہونا چاہیے

3. ✖

Any subset of V containing exactly n elements of V other than zero, is a basis of V.

کسی بھی V کے تحت سیٹ جن میں برابر n عناصر ہو صفر کے علاوہ، جو V کا اساسی ہے.

4. ✖

Question Number : 132 Question Id : 14558910425 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The dimension of the vector space V of all m x n matrices of real numbers over the field of real numbers is

حقیقی اعداد کے میدان پر $m \times n$ ماٹرس کے حقیقی اعداد کے سمتی فضا کے ابعاد کیا ہیں -

Options :

1. ✖ $m+n$

2. ✖

m^n

3. ✔ mn

$m+n+mn$

4. ✖

Question Number : 133 Question Id : 14558910426 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If $T:\mathbb{R}^3 \to \mathbb{R}^2$ linear transformation defined by $T(x,y,z)=(x,x+y)$ for all $(x,y,z)\in\mathbb{R}^3$, then the dimension of the kernel of T is

اگر $T:R^3\to R^2$ ایک خطی استعمالہ ہے جو اس طرح بیان کیا گیا کہ $T(x,y,z)=(x,x+y)$ تمام $(x,y,z)\in R^3$ کیلئے، تب T کے Kernel کو ابعاد کیا ہیں ۔

Options :

1. ✖ 0

2. ✔ 1

3. ✖ 2

4. ✖

Question Number : 134 Question Id : 14558910427 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If S is a linear subspace of the vector space V over the field F, then the false statement among the following is

اگر میدان F پر ناسمتی فضاء کا خطی ذیلی فضا "S" ہے
تب ذیل میں یہ بیان غلط ہے۔

Options :

1. ✗ $S \subseteq L(S)$

2. ✗ $L(S) \subseteq S$

3. ✗ $L(L(S) = L(S)$

4. ✓ $S \subsetneq L(S)$

Question Number : 135 Question Id : 14558910428 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The set $\{(1,1,0),(1,0,1),(0,1,1)\}$ of vectors in the vector space $\mathbb{R}^3(\mathbb{R})$,

$\{(1,1,0),(1,0,1),(0,1,1)\}$ $R^3(R)$ سمتی فضا میں سمتوں کا سیٹ ہے۔

Options :

is a linearly independent set but not a basis

1. ✖ ایک خطی غیر تابع سیٹ ہے لیکن اساسی نہیں۔

is a basis

2. ✔ ایک اساسی ہے

is a linearly dependent set

3. ✖ خطی تابع سیٹ ہے

does not span the space $\mathbb{R}^3(\mathbb{R})$

4. ✖ فضا $R3(R$ کا پھیلاؤ نہیں

Question Number : 136 Question Id : 14558910429 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The dimension of the vector space $\mathbb{R}$ over the field $\mathbb{Q}$ is

میدان "Q" پر سمتی فضا R کے ابعاد ــــ ہیں۔

Options :

1. ✖ 1

2. ✖ 2

3. ✖ finite
متناہی

4. ✔ infinite
لامتناہی

Question Number : 137 Question Id : 14558910430 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If W_1 and W_2 are two vector subspaces of a vector space V such that $\dim W_1 = 4$, $\dim W_2 = 7$ and $\dim(W_1 \cap W_2) = 2$, then $\dim(W_1 + W_2) =$

اگر W_1 اور W_2 دو سمتی تحت فضا ہیں۔
اسطرح ہے کہ $\dim W_1 = 4$، $\dim W_2 = 7$ اور $\dim(W_1 \cap W_2) = 2$
تب $\dim(W_1 + W_2) =$ ــــ

Options :

1. ✖ 11

2. ✖ 7

3. ✔ 9

4. ✖ 13

Question Number : 138 Question Id : 14558910431 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If $T:\mathbb{R}^3 \to \mathbb{R}^3$ is a linear transformation such that $T(1,0,0)=(4,1,0)$, $T(0,1,0)=(3,2,1)$, $T(0,0,1)=(1,3,5)$; then for any $(x,y,z)\in\mathbb{R}^3$, $T(x,y,z)=$

اگر $T: R^3 \to R^3$ ایک خطی استعمالیہ ہے۔ اس طرح کہ $T(1,0,0)=(4,1,0)$, $T(0,1,0)=(3,2,1)$ $T(0,0,1)=(1,3,5)$ تب کسی بھی $(x,y,z)\in R^3$ ____ = $T(x,y,z)$ ہے۔

Options :

1. ✖ $(4x+3y+z,\ x+y+3z,\ x+2y+5z)$

2. ✔ $(4x+3y+z,\ x+2y+3z,\ y+5z)$

3. ✖ $(4x+y+2z,\ x+y+2z,\ x+5z)$

4. ✖

$(x+3y+z,\ 4x+2y+3z,\ x+y+5z)$

Question Number : 139 Question Id : 14558910432 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Let $T:\mathbb{R}^2 \to \mathbb{R}^2$ be a linear transformation defined by $T(x,y)=(2x+3y, x-y)$ for all $(x,y)\in\mathbb{R}^2$. Then the matrix of the linear transformation T with respect to the standard basis $B=\{(1,0),(0,1\}$ of $\mathbb{R}^2$ is

فرض کرو کہ $T: R^2 \to R^2$ ایک خطی استعالہ اسطرح بیان کیا گیا کہ $T(x,y)=(2x+3y, x-y)$ تمام $(x,y)\in R^2$ کیلئے ہے۔ تب "T" خطی استعالہ کے ماٹرس R^2 کو معیاری اساسہ $B=\{(1,0),(0,1)\}$ کے حوالے سے ——— ہے۔

Options :

1. ✖ $\begin{bmatrix} 2 & -1 \\ 3 & 1 \end{bmatrix}$

2. ✔ $\begin{bmatrix} 2 & 3 \\ 1 & -1 \end{bmatrix}$

3. ✖ $\begin{bmatrix} 3 & 2 \\ -1 & 2 \end{bmatrix}$

4. ✖ $\begin{bmatrix} 3 & -1 \\ 1 & 2 \end{bmatrix}$

Question Number : 140 Question Id : 14558910433 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Let V be a vector space of dimension n over field F and let $L(V,V)$ denote the vector space of all linear operators from V to V. Then $\dim(L(V,V))=e$

اگر میدان F پر n ابعاد والے سمتی فضا V ہے اور سمتی فضا $L(V,V)$ کی شکل ہے V تا V کے تمام خطی مقابلیات میں ظاہر کیا گیا۔ تب $e = \dim(L(V,V))$

Options :

1. ✖ $2n$

2. ✔ n^2

3. ✖ n^n

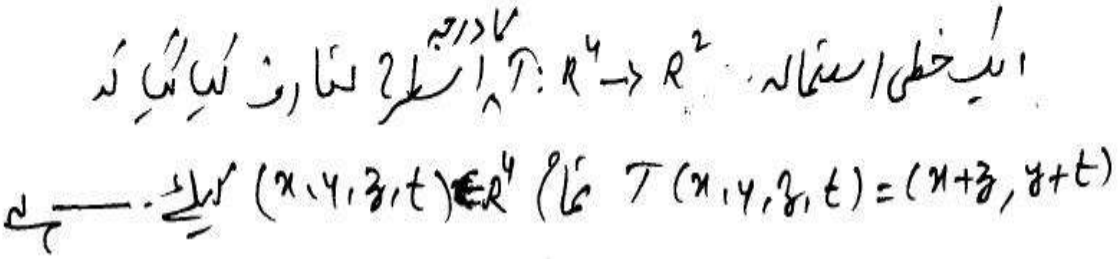
4. ✖ n

Question Number : 141 Question Id : 14558910434 Display Question Number : Yes Is Question

Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The rank of the linear transformation $T:\mathbb{R}^4 \to \mathbb{R}^2$ defined by $T(x,y,z,t)=(x+z, y+t)$

for all $(x,y,z,t)\in\mathbb{R}^4$ is



Options :

1. ✖ 4

2. ✖ 3

3. ✔ 2

4. ✖ 1

Question Number : 142 Question Id : 14558910435 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The rank of the matrix $A=\begin{bmatrix} -5 & 0 & 7 & 4 \\ 3 & 1 & -2 & -1 \\ 1 & 2 & 3 & 2 \end{bmatrix}$ is

ماٹرکس $A=\begin{bmatrix} -5 & 0 & 7 & 4 \\ 3 & 1 & -2 & -1 \\ 1 & 2 & 3 & 2 \end{bmatrix}$ کا درجہ ——— ہے۔

Options :

1. ✖ 1

2. ✔ 2

3. ✖ 3

4. ✖ 4

Question Number : 143 Question Id : 14558910436 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If A is a non singular matrix over $\mathbb{R}$, then for any matrix B, $(A^{-1}BA)^9 =$

اگر A ایک غیر اکائی ماٹرکس ہے R پر۔ تب کسی بھی ماٹرکس B کیلئے $(A^{-1}BA)^9$ = ———

Options :

1. ✖ $A^{-9}B^{9}A^{9}$

2. ✖ $A^{9}B^{9}A^{-9}$

3. ✔ $A^{-1}B^{9}A$

4. ✖ $A\,B^{9}A^{-1}$

Question Number : 144 Question Id : 14558910437 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

A is a 10 x 12 matrix over the field $\mathbb{R}$. If every submatrix of A with order 7 x 7 is singular, then

$\mathbb{R}$ میدان پر 10x12 ماٹرکس "A" ہے۔ اگر A کا ہر مختت ماٹرکس ماٹرکس 7x7 درجہ والا ہے۔ تب ــــ

Options :

1. ✖ rank of A = 7

A کا درجہ = 7

2. ✖ rank of A > 7

A کا درجہ 7 سے بڑا

rank of A < 7

A کا درجہ 7 سے چھوٹا

3. ✔

rank of A = 10

A کا درجہ 10 کے مساوی

4. ✖

Question Number : 145 Question Id : 14558910438 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Let $T:\mathbb{R}^2 \to \mathbb{R}^2$ be defined by $T(x,y)=(x+2y, 3x+2y)$ for $(x,y)\in\mathbb{R}^2$ and $B=\{(1,0),(0,1)\}$ be the standard basis of $\mathbb{R}^2(\mathbb{R})$. Then the characteristic roots of the matrix $[T]_B$ are

فرض کرو کہ $T: R^2 \to R^2$ اس طرح بیان کیا گیا کہ

$T(x,y) = (x+2y, 3x+2y)$ کے لیے $(x,y) \in R^2$ ہے ۔ تب ماترش $[T]_B$

کے خصوصیاتی رشتے ہیں۔

Options :

1. ✖ 4, 1

2. ✖ −4, −1

3. ✔

4, −1

−4, 1

4. ✖

Question Number : 146 Question Id : 14558910439 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The characteristic equation of the matrix $A=\begin{bmatrix}1 & 0 & 5\\ 0 & 2 & 6\\ 3 & 1 & 4\end{bmatrix}$ is

ماٹرس $A=\begin{bmatrix}1 & 0 & 5\\ 0 & 2 & 6\\ 3 & 1 & 4\end{bmatrix}$ کی خصوصیاتی مساوات ——

Options :

1. ✖ $\lambda^3+7\lambda^2-7\lambda-28=0$

2. ✖ $\lambda^3+7\lambda^2+7\lambda+28=0$

3. ✔ $\lambda^3-7\lambda^2-7\lambda+28=0$

4. ✖ $\lambda^3-7\lambda^2+7\lambda-28=0$

Question Number : 147 Question Id : 14558910440 Display Question Number : Yes Is Question

Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In an inner product space $V(F)$ for $x, y \in V(F)$ the parallelogram law is

$x, y \in V(F)$ کیلئے $V(F)$ ایک اندرونی ضرب فضا میں
قانونِ متوازی الاضلاع ——— ہے۔

Options :

1. ✖ $\|x+y\|^2 + \|x-y\|^2 = \|x\|^2 + \|y\|^2$

2. ✖ $\|x+y\|^2 - \|x-y\|^2 = \|x\|^2 - \|y\|^2$

3. ✔ $\|x+y\|^2 + \|x-y\|^2 = 2\left(\|x\|^2 - \|y\|^2\right)$

4. ✖ $\|x+y\|^2 - \|x-y\|^2 = 2\left(\|x\|^2 - \|y\|^2\right)$

Question Number : 148 Question Id : 14558910441 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In an inner product space V(F), for any two vectors α and β , if $\|\alpha\| = 5$ and $\|\beta\| = 8$,

then $|<\alpha, \beta>|$ cannot be equal to

کسی بھی دو سمتوں α اور β کیلئے V(F) / اندرونی ضرب فضا میں، اگر $\|\alpha\| = 5$ اور $\|\beta\| = 8$ تب $|<\alpha, \beta>|$ ____ کے برابر (مساوی) نہیں ہے۔

Options :

1. ✔ 45

2. ✖ 35

3. ✖ 25

4. ✖ 15

Question Number : 149 Question Id : 14558910442 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Caley-Hamilton theorem states that

کالے - ہیاملٹن مسئلہ بیان کرتا ہے کہ

Options :

1. ✖

Every square matrix has a characteristic equation.

ہر مربع ماٹرس میں ایک امتیازی مساوات ہے

Every square matrix has an inverse

ہر ایک مربع ماٹرس کا معکوس ہوتا ہے

2. ✖

Every square matrix satisfies its characteristic equation

ہر مربع ماٹرس اسکے امتیازی مساوات کو مطمئن کرتا ہے

3. ✔

Every non-singular matrix satisfies its characteristic equation

ہر ایک غیر الاٹی ماٹرس اسکے امتیازی مساوات کو مطمئن کرتا ہے۔

4. ✖

Question Number : 150 Question Id : 14558910443 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Let V be an inner product space over $\mathbb{R}$ and $x, y \in V$ be such that the vectors $x+y$ and $x-y$ are orthogonal. If $\|x\|=5$, then $\|y\|=$

فرض کرو کہ R پر ایک اندرونی ضربی فضا V اور $x, y \in V$
ایسا ہے کہ سمتیں $x+y$ اور $x-y$ عمود ہیں۔
اگر $\|x\|=5$ تب $\|y\|=$ ____

Options :

1. ✔ 5

2. ✖ $\frac{1}{5}$

3. ✖ -5

4. ✖ $\frac{-1}{5}$