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# Andhra Pradesh State Council of Higher Education

**Notations :**

- Options shown in green color and with ✓ icon are correct.
- Options shown in red color and with ✗ icon are incorrect.

<b>Question Paper Name :</b>	MATHEMATICS URDU 05th June 2025 Shift 2
<b>Subject Name :</b>	MATHEMATICS URDU
<b>Creation Date :</b>	2025-06-06 11:18:56
<b>Duration :</b>	120
<b>Total Marks :</b>	150
<b>Display Marks:</b>	No
<b>Share Answer Key With Delivery Engine :</b>	Yes
<b>Change Font Color :</b>	No
<b>Change Background Color :</b>	No
<b>Change Theme :</b>	No
<b>Help Button :</b>	No
<b>Show Reports :</b>	No
<b>Show Progress Bar :</b>	No

## MATHEMATICS URDU

<b>Group Number :</b>	1
<b>Group Id :</b>	23366776
<b>Group Maximum Duration :</b>	0
<b>Group Minimum Duration :</b>	120
<b>Show Attended Group? :</b>	No
<b>Edit Attended Group? :</b>	No
<b>Break time :</b>	0
<b>Group Marks :</b>	150

## General English

<b>Section Id :</b>	233667377
<b>Section Number :</b>	1
<b>Section type :</b>	Online

<b>Mandatory or Optional :</b>	Mandatory
<b>Number of Questions :</b>	21
<b>Number of Questions to be attempted :</b>	21
<b>Section Marks :</b>	25
<b>Maximum Instruction Time :</b>	0
<b>Sub-Section Number :</b>	1
<b>Sub-Section Id :</b>	233667452
<b>Question Shuffling Allowed :</b>	No

**Question Id : 23366711326 Question Type : COMPREHENSION Sub Question Shuffling Allowed : Yes Group Comprehension Questions : No Question Pattern Type : NonMatrix**

**Question Numbers : (1 to 5)**

Question Label : Comprehension

**Read the passage and answer questions based on the passage:**

Moral education centres upon this conception of the school as a mode of social life, that the best and the deepest moral training is precisely that which one gets through having to enter into proper relations with others in a unity of work and thought. The present educational systems, so far as they destroy or neglect this unity, render it difficult or impossible to get any genuine, regular moral training.

Sub questions

**Question Number : 1 Question Id : 23366711327 Question Type : MCQ Option Shuffling : No Display Question Number : Yes**

**Correct Marks : 1 Wrong Marks : 0**

According to the writer, the school is a form of \_\_\_\_\_

Options :

1. ✘ individual existence
2. ✘ religious life
3. ✘ spiritual life

#### 4. ✓ social life

Question Number : 2 Question Id : 23366711328 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

Moral training, according to the passage, effects \_\_\_\_\_

Options :

1. ✓ a unity of work and thought
2. ✗ entering into proper relations with oneself
3. ✗ the skills of work
4. ✗ the skills of thought

Question Number : 3 Question Id : 23366711329 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

The writer's attitude to the present education system can be described as \_\_\_\_\_

Options :

1. ✓ Critical
2. ✗ adulatory
3. ✗ defensive
4. ✗ indifferent

Question Number : 4 Question Id : 23366711330 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

The central concern of the passage is \_\_\_\_\_

Options :

1. ✘ spiritual education / spiritual training
2. ✘ work education / work training
3. ✔ moral education / moral training
4. ✘ thought education / thought training

Question Number : 5 Question Id : 23366711331 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

Find the word from the passage that is a synonym of accurate

Options :

1. ✘ Conception
2. ✘ Neglect
3. ✔ Precise
4. ✘ Genuine

Sub-Section Number :

2

Sub-Section Id :

233667453

Question Shuffling Allowed :

Yes

Question Number : 6 Question Id : 23366711332 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

Correct the underline word in the sentence below, by substituting with the correct word

I pray for god to give me strength

Options :

1. ✘ regarding

2. ✓ to

3. ✗ of

4. ✗ with

Question Number : 7 Question Id : 23366711333 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

I think he is \_\_\_\_\_ honest man

Options :

1. ✗ the

2. ✓ an

3. ✗ a

4. ✗ no article

Question Number : 8 Question Id : 23366711334 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

This is \_\_\_\_\_ car my friend bought last week

Options :

1. ✓ the

2. ✗ an

3. ✗ a

4. ✗ no article

Question Number : 9 Question Id : 23366711335 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

Indeed, I am not sure \_\_\_\_\_ his success

Options :

1. ✓ of
2. ✗ regarding
3. ✗ about
4. ✗ off

Question Number : 10 Question Id : 23366711336 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

They saw him fell \_\_\_\_\_ his horse

Options :

1. ✗ after
2. ✗ against
3. ✗ of
4. ✓ off

Question Number : 11 Question Id : 23366711337 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

The \_\_\_\_\_ will meet again, to discuss the matter

Options :

1. ✗ Comittee
2. ✗ Commitee

3. ✓ Committee

4. ✗ Comitee

Question Number : 12 Question Id : 23366711338 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

The Cricket team are in a \_\_\_\_\_ mood

Options :

1. ✓ buoyant

2. ✗ buoyent

3. ✗ boyant

4. ✗ buyant

Question Number : 13 Question Id : 23366711339 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

Had he studied hard, he \_\_\_\_\_ passed

Options :

1. ✗ has

2. ✗ had been

3. ✓ would have

4. ✗ have been

Question Number : 14 Question Id : 23366711340 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

I wish I \_\_\_\_\_ her address

Options :

1. ✘ know
2. ✘ have known
3. ✘ may know
4. ✔ knew

Question Number : 15 Question Id : 23366711341 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

Incredulous means \_\_\_\_\_

Options :

1. ✘ obliterate
2. ✔ skeptical
3. ✘ practical
4. ✘ insane

Question Number : 16 Question Id : 23366711342 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

Precipitous means \_\_\_\_\_

Options :

1. ✔ very steep
2. ✘ very deep

3. ✘ presumption

4. ✘ nascent

Question Number : 17 Question Id : 23366711343 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

\_\_\_\_\_ is a synonym for ingenuous

Options :

1. ✘ Clever

2. ✘ ingenious

3. ✔ honest

4. ✘ Indecent

Question Number : 18 Question Id : 23366711344 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

Keeness is a synonym for \_\_\_\_\_

Options :

1. ✘ abjure

2. ✘ enigma

3. ✘ skip

4. ✔ acumen

Question Number : 19 Question Id : 23366711345 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

Invincible is an antonym for \_\_\_\_\_

Options :

1. ✓ conquerable
2. ✗ transparent
3. ✗ fiasco
4. ✗ instil

Question Number : 20 Question Id : 23366711346 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

Change the following into a simple sentence

He wanted to play with his friends and so he finished his home work quickly

Options :

1. ✗ As he wanted to play with his friends, he finished his homework quickly
2. ✗ So as to play with his friends, he finished his home work quickly
3. ✗ He wants to play with his friends and they he finished his home work quickly
4. ✓ In order to play with his friends, he finished his home work quickly

Question Number : 21 Question Id : 23366711347 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

Change the following sentence into a complex sentence

“Despite several obstacles, she succeeded finally”

Options :

1. ✘ In spite of several obstacles, she succeeded finally
2. ✘ Notwithstanding several obstacles, she succeeded finally
3. ✔ Though there were several obstacles, she succeeded finally
4. ✘ There were several obstacles and still she succeeded finally

Question Number : 22 Question Id : 23366711348 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

Change the following sentence into passive voice

“I saw him opening the door”

Options :

1. ✘ I saw the door and he was opening it
2. ✘ Opening the door, he was seen by me
3. ✔ I saw the door being opened by him
4. ✘ He was seen by me while opening the door

Question Number : 23 Question Id : 23366711349 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

Change the following into active voice

“I was kept waiting for two hours by him”

Options :

1. ✘ I waited for two hours because of him

2. ✓ He kept me waiting for two hours
3. ✗ He is waiting for me for two hours
4. ✗ I was waiting for two hours for him

Question Number : 24 Question Id : 23366711350 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

Change the following into indirect speech  
“I will bring my laptop tomorrow”, she said

Options :

1. ✗ She said she would bring my laptop the next day
2. ✓ She said that she would bring her laptop the next day
3. ✗ She said she will bring her laptop the next day
4. ✗ She said she would bring her laptop tomorrow

Question Number : 25 Question Id : 23366711351 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

Change the following into direct speech:  
“She said that she loved pizza so much”

Options :

1. ✓ She said, “I love pizza so much”
2. ✗ She says, “I love pizza so much”

3. ✖ She said, "I loved pizza so much"

4. ✖ She says, "I loved pizza so much"

### General Knowledge

Section Id :	233667378
Section Number :	2
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	15
Number of Questions to be attempted :	15
Section Marks :	15
Maximum Instruction Time :	0
Sub-Section Number :	1
Sub-Section Id :	233667454
Question Shuffling Allowed :	Yes

Question Number : 26 Question Id : 23366711352 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

The primary function of the Election Commission of India is to:

الیکشن کمیشن آف انڈیا کا بنیادی کام یہ ہے :

Options :

Formation of laws

قوانین کی تشکیل

1. ✖

Conducting elections

انتخابات کا انعقاد

2. ✓

Pass budgets

بجٹ کی منظوری

3. ✘

Managing Parliament sessions

پارلیمنٹ کے اجلاسوں کا انتظام

4. ✘

Question Number : 27 Question Id : 23366711353 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

The largest freshwater lake in India is:

ہندوستان میں سب سے بڑی جھیل کون سی ہے؟

Options :

Vembanad Lake

ویمبناڈ جھیل

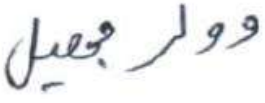
1. ✘

Dal Lake

دال جھیل

2. ✘

Wular Lake

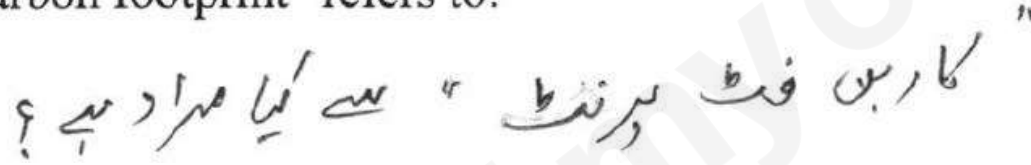
3. ✓ 

Chilika Lake

4. ✗ 

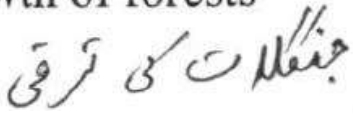
Question Number : 28 Question Id : 23366711354 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

The term "carbon footprint" refers to:



Options :

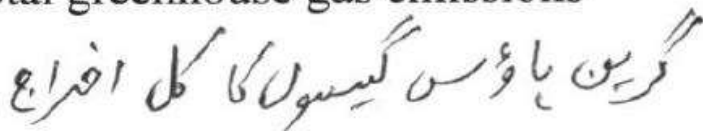
Growth of forests

1. ✗ 

Water pollution levels

2. ✗ 

Total greenhouse gas emissions

3. ✓ 

## Fuel efficiency of vehicles

4. ✘ گاڑیوں کی ایندھن کی کارکردگی

Question Number : 29 Question Id : 23366711355 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

India's first mission to study the Sun is:

سورج کا مطالعہ کرنے والی پہلی مہم کون سی ہے؟

Options :

Aditya-L1

1. ✔ آڈیٹیا - L1

Chandrayaan

2. ✘ چنڈرا یان

Surya-N1

3. ✘ سوریا - N1

Vikram Lander

وکریم لندر

4. ✖

Question Number : 30 Question Id : 23366711356 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

The 'Green Revolution' in India was mainly associated with:

ہندوستان میں سبز انقلاب " بنیادی طور پر اس سے رابطہ تھا

Options :

Irrigation reforms

1. ✖

آب پاشی اصلاحات

Industrial development

2. ✖

صنعتی ترقی

Agricultural productivity

3. ✔

زرعی پیداوار

## Environmental protection

ما حولياتي تحفظ

4. ✖

Question Number : 31 Question Id : 23366711357 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

Which of the following is not a fundamental right in the Indian Constitution?

مندرجہ ذیل میں سے کون سا ہندوستانی آئین میں بنیادی حق نہیں ہے

Options :

Right to Equality

برابری کا حق

1. ✖

Right to Property

جاؤاد کا حق

2. ✔

Right to Education

تعلیم کا حق

3. ✖

## Right to Freedom

آزادی کا حق

4. ✘

Question Number : 32 Question Id : 23366711358 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

UNESCO stands for:

یونیسکو کا مطلب یہ ہے؟

Options :

United Nations Educational, Scientific and Cultural Organization

اقوام متحدہ کی تعلیمی، سائنسی اور ثقافتی تنظیم

1. ✔

Universal Science and Culture Organization

یونیورسٹی سائنس اینڈ کلتور آرگنائزیشن

2. ✘

United Nations Environmental, Scientific and Cultural Organization

3. ✖ اقوام متحدہ کی ماحولیاتی ، سائنسی اور ثقافتی تنظیم

Union of National Education, Science and Culture Organisation

4. ✖ قومی تعلیم ، سائنس اور ثقافتی تنظیم کی یونین

Question Number : 33 Question Id : 23366711359 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

The Indian Parliament consists of:

ہندوستانی پارلیمنٹ میں شامل ہے

Options :

Lok Sabha and President

1. ✖ لوک سبھا اور صدر

Lok Sabha and Rajya Sabha

2. ✘ لوک سبھا اور راجیہ سبھا

Lok Sabha, Rajya Sabha and President

3. ✓ لوک سبھا، راجیہ سبھا اور صدر

Rajya Sabha and Supreme Court

4. ✘ راجیہ سبھا اور سپریم کورٹ

Question Number : 34 Question Id : 23366711360 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

The capital of Uttarakhand is:

اتراکھنڈ کا دارالحکومت کون سا ہے ؟

Options :

Mussoorie

1. ✘ موسوری

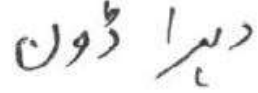
Nainital

2. ✘



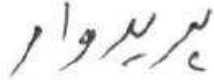
Dehradun

3. ✔



Haridwar

4. ✘



Question Number : 35 Question Id : 23366711361 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

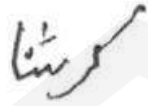
Which Indian River is known as 'Dakshina Ganga'?



Options :

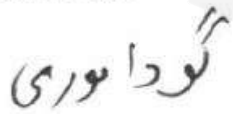
Krishna

1. ✘



Godavari

2. ✔



Kaveri

3. ✖ کاویری

Mahanadi

4. ✖ میاندی

Question Number : 36 Question Id : 23366711362 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

'One Earth, One Family, One Future' was the theme of which recent international summit held in India?

”ایک زمین، ایک خاندان، ایک مستقبل“ حال ہی میں ہندوستان میں اقوام متحدہ کی  
کون کانفرنس کا موضوع تھا؟

Options :

G7 Summit

1. ✖ سربراہی اجلاس جی-7

SCO Summit

2. ✖ سی سی او سربراہی اجلاس

## G20 Summit

3. ✓ 20-25 ستمبر 2023ء کی اجلاس

## BRICS Summit

4. ✗ بریکس سمٹ

Question Number : 37 Question Id : 23366711363 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

The primary role of NITI Aayog is to:

:

نیتی ایوگ "کا بنیادی کردار یہ ہے :

Options :

Conduct elections

1. ✗ انتخابات کا انعقاد

Formulation of policies and strategies

2. ✓ پالیسیوں اور حکمت عملی کی تشکیل

Collecting taxes

3. ✘

ٹیکس جمع کرنا

Enforcement of laws

4. ✘

قوانین کا نفاذ

Question Number : 38 Question Id : 23366711364 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

The first Indian woman to go into space was:

خلاء میں جانے والی پہلی خاتون کون تھیں؟

Options :

Sunita Williams

1. ✘

سُنیتا ولیمز

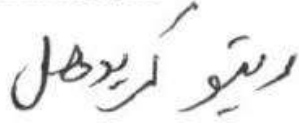
Kalpana Chawla

2. ✔

کالپنا چاولہ

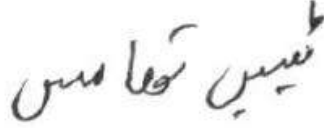
Ritu Karidhal

3. ✖



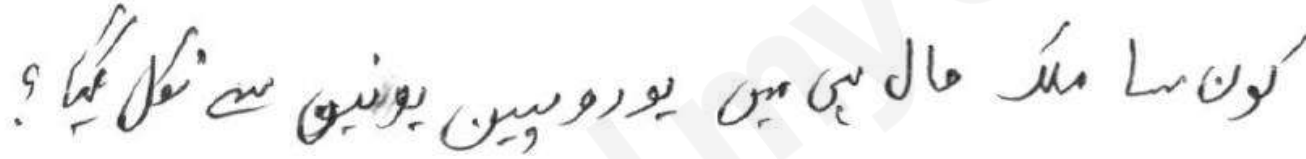
Tessy Thomas

4. ✖



Question Number : 39 Question Id : 23366711365 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

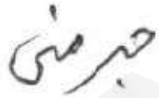
Which country recently exited the European Union (Brexit)?



Options :

Germany

1. ✖



France

2. ✖



Italy

اطالی

3. ✘

United Kingdom

برطانیہ

4. ✔

Question Number : 40 Question Id : 23366711366 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

'Mission Shakti' was related to:

میشن شکتی " کس سے متعلق ہے ؟

Options :

Women's empowerment

خواتین کو با اختیار بنانا

1. ✘

Anti-satellite missile test

اینٹی سیٹلائٹ میزائل کا تجربہ

2. ✔

## Cybersecurity program

3. ✖

سیٹبر سیکورٹی پروگرام

## Skill development for youth

4. ✖

نوجوانوں کے لیے مہارت کی ترقی

### Teaching Aptitude

Section Id :	233667379
Section Number :	3
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	10
Number of Questions to be attempted :	10
Section Marks :	10
Maximum Instruction Time :	0
Sub-Section Number :	1
Sub-Section Id :	233667455
Question Shuffling Allowed :	Yes

Question Number : 41 Question Id : 23366711367 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

The purpose of formative assessment is:

تشکلاتی تشخیص کا مطلب یہ ہے :

Options :

To assign final grades

1. ✘

حتمی درجات تفویض کرنے کے لیے

To evaluate teaching staff

2. ✘

تدریسی عملے کا جائزہ لینا

To improve learning while it is happening

3. ✔

سیکھنے کو بہتر بنانے کے لیے جیسے جیسے یہ ترقی کرتا ہے۔

To promote students

4. ✘

طلبا کی حوصلہ افزائی کے لیے

Question Number : 42 Question Id : 23366711368 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

Which learning theory is associated with operant conditioning?

کون سا سیکھنے کا نظریہ " آپریٹو کنڈیشننگ " سے وابستہ ہے

Options :

Piaget's theory

1. ✘ پیاگتس کی نظریہ

Skinner's theory

2. ✔ سکنر کی نظریہ

Maslow's theory

3. ✘ ماسلو کی نظریہ

Gardner's theory

4. ✘ گارڈنر کی نظریہ

Question Number : 43 Question Id : 23366711369 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

A democratic classroom environment encourages:

ایڈیٹیو جمہوری کمرہ جماعت کا ماحول کس طرح حوصلہ افزائی کرتا ہے

Options :

Authoritarian discipline

آمرانہ نظم و ضبط

1. ✘

Passive learners

غیر فعال سیکھنے والے

2. ✘

Student participation and dialogue

3. ✔ طلباء کی شرکت اور مکالمہ

Teacher-centred teaching

اساتذہ پر مبنی تعلیم

4. ✘

Question Number : 44 Question Id : 23366711370 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

Which one is an example of intrinsic motivation?

اندرونی قابلیتوں کی حوصلہ افزائی کی مثال یہ ہے۔

Options :

Prize for winning

1. ✘ جیتنے پر انعام

Fear of punishment

2. ✘ سزا کا خوف

Desire to learn

3. ✔ سیکھنے کی خواہش

Parental pressure

4. ✘ والدین کا دباؤ

Question Number : 45 Question Id : 23366711371 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

A teacher using Bloom's Taxonomy should aim at which higher-order skill?

بloom کی درجہ بندی کا استعمال کرنے والے استاد کا مقصد یہ ہے

Options :

Remembering facts

حقائق کا یاد کرنا

1. ✘

Applying definitions

تعریفیں لاکر کرنا

2. ✘

Creating new knowledge

نیا علم پیدا کرنا

3. ✔

Understanding rules

قوانین کو سمجھانا

4. ✘

Question Number : 46 Question Id : 23366711372 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

In pedagogy, 'feedback' helps:

تدریسی " فیڈ بیک " کس طرح مدد کرتا ہے ؟

Options :

Punish students

1. ✘ طلباء کو سزا دینے کے لیے

Modify teaching strategies

2. ✔ تدریسی حکمت عملیوں میں ترمیم کرنے کے لیے

Give homework

3. ✘ ہوم ورک دینا

Mark attendance

4. ✘ حاضری کو نشان زد کرنا

Question Number : 47 Question Id : 23366711373 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

Which among these promotes inclusive education?

ان میں سے کون سی جامع تعلیم و فروغ دیتا ہے؟

Options :

Segregated classrooms

1. ✘

انگڈ کمرہ جمائیس

Fixed curriculum

2. ✘

مقررہ نصاب

Adaptive teaching methods

3. ✔

قابل اختیار تدریسی طریقہ

Competitive grouping

4. ✘

مسابقتی گروہ بندی

Question Number : 48 Question Id : 23366711374 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

Which is a barrier to effective classroom communication?

گمراہ جماعت میں موثر مواصلات میں کیا رکاوٹ ہے؟

Options :

Use of visual aids

1. ✘

بصری آلات کا استعمال

Clear articulation

2. ✘

واضح بیان

Language mismatch

3. ✔

زبان میں مماثلت نہیں

Active listening

4. ✘

فعال سننا

Question Number : 49 Question Id : 23366711375 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

A good teacher evaluates students by:

ایک اچھا استاد طالب علموں کی جانچ اس طرح کرتا ہے:

Options :

Comparing them with others

1. ✘ دوسروں کے ساتھ ان کا موازنہ کرنا

Judging their behaviour

2. ✘ ان کے رویے کا اندازہ لگانا

Identifying strengths and weaknesses

3. ✔ طاقتوں اور کمزوریوں کی نشاندہی کرنا

Ignoring slow learners

4. ✘ سست سیکھنے والوں کو نظر انداز کرنا

Question Number : 50 Question Id : 23366711376 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

Effective teaching is primarily about:

موشر تعلیم ، بنیادی طور پر اس کے بارے میں ہے

Options :

Completing the syllabus

نصاب کو مکمل کرنا

1. ✘

Giving maximum homework

زیادہ سے زیادہ ہوم ورک دینا

2. ✘

Enhancing understanding and engagement

افہام و تفہیم اور مشغولیت کو بڑھانا

3. ✔

Following textbooks strictly

نصابی کتب کی سختی سے پیروی کرنا

4. ✘

**Mathematics Urdu**

233667380

Section Id :

Section Number :	4
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	100
Number of Questions to be attempted :	100
Section Marks :	100
Maximum Instruction Time :	0
Sub-Section Number :	1
Sub-Section Id :	233667456
Question Shuffling Allowed :	Yes

Question Number : 51 Question Id : 23366711377 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

Which of the following differential equations is not first-order and first-degree

مندرجہ ذیل تفرقی مساوات میں کو نسا اولیٰ درجہ اور  
ترتیب میں ہیں۔

Options :

1. ✘  $\frac{dy}{dx} = x + y$

2. ✔  $\left(\frac{dy}{dx}\right)^2 + y = 0$

3. ✘  $\frac{dy}{dx} = x^2 + y^2$

4. ✘  $\frac{dy}{dx} = 3x + 2$

Question Number : 52 Question Id : 23366711378 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

The orthogonal trajectories of  $y = ax^2, y = ax^n$ 

یہ دو کھودی خط حرکت کے  $y = ax^n$  اور  $y = ax^2$

Options :

1. ✘  $x^2 + 2y^2 = c^2$

2. ✘  $y^2 - x^2 = c^2$

3. ✔  $x^2 + ny^2 = c$

4. ✘  $x^2 - ny^2 = c$

Question Number : 53 Question Id : 23366711379 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

What is the integrating factor for the differential equation  $\frac{dy}{dx} + \left(\frac{2}{x}\right)y = x^2$ 

تقریبی مساوات کا تکمیل شدہ جز فری  $\frac{dy}{dx} + \left(\frac{2}{x}\right)y = x^2$

Options :

1. ✔  $x^2$

2. ✘  $\frac{1}{x^2}$

3. ✖  $x$

4. ✖  $\frac{1}{x}$

Question Number : 54 Question Id : 23366711380 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

Solution of non-exact differential equation  $(1 + xy)ydx + (1 - xy)dy = 0$  with  
integral factor  $\frac{1}{x^2y^2}$  is

فیر قطعی نومی ماوردت  
جکا تکمیل شدہ جزومی

$$\int \frac{1}{x^2y^2} [(1 + xy)ydx + (1 - xy)dy] = 0$$

Options :

1. ✖  $\frac{1}{xy} - \log\left(\frac{x}{y}\right) = c$

2. ✖  $-\frac{1}{xy} - \log\left(\frac{y}{x}\right) = c$

3. ✔  $-\frac{1}{xy} + \log\left(\frac{x}{y}\right) = c$

4. ✖  $\frac{1}{xy} + \log\left(\frac{y}{x}\right) = c$

Question Number : 55 Question Id : 23366711381 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

Find the general solution of the differential equation  $\frac{dy}{dx} = 5x^2 + 2$ .

تفریق ماہورت کا جواب  $\frac{dy}{dx} = 5x^2 + 2$

Options :

1. ✓  $5x^3 + 6x - 3y + 3C = 0$

2. ✗  $12x - 3y^2 + C = 0$

3. ✗  $10x^3 + 12x - y^2 + C = 0$

4. ✗  $10x^2 - 3y^2 + C = 0$

Question Number : 56 Question Id : 23366711382 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

Solve  $p^2 - 7p + 12 = 0$  for p

حل کر  $p \leftarrow p^2 - 7p + 12 = 0$

Options :

1. ✓  $(y - 3x - c)(y - 4x - c) = 0$

2. ✗  $(y - 4x - c)(y - 2x - c) = 0$

3. ✖  $(y + 3x - c)(y - 4x - c) = 0$

4. ✖  $(y - 3x - c)(y + 4x - c) = 0$

Question Number : 57 Question Id : 23366711383 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

The solution of the differential equation  $y = px + \sqrt{4 + p^2}$  is

تفرقی مساوات کا حل  $y = px + \sqrt{4 + p^2}$

Options :

1. ✖  $(y - cx)^2 + c^2 = 0$

2. ✖  $(y - cx)^2 + 4c^2 = 0$

3. ✔  $(y - cx)^2 - c^2 = 4$

4. ✖  $(y - cx)^2 - 4c^2 = 0$

Question Number : 58 Question Id : 23366711384 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

Which of the following equations is solvable for y

مندرجہ ذیل میں سے کون سا مساوات کوئی ہے

Options :

1. ✘  $x^2 + y^2 = 1$
2. ✘  $x + y^2 = 1$
3. ✔  $3x + 2y = 8$
4. ✘  $x + y = 1$  and  $x - y = 1$

Question Number : 59 Question Id : 23366711385 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

What is the general solution of the Clairaut's equation  $y = px + p^3$

کلائرٹ مساوات کا عمومی حل دیکھیے  $y = px + p^3$

Options :

1. ✔  $y = Cx + C^3$
2. ✘  $y = Cx + C^2$
3. ✘  $y = Cx + 3C^2$
4. ✘  $y = Cx + C^4$

Question Number : 60 Question Id : 23366711386 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

The particular integral of  $(D^2 + D + 1)y = \sin x$  is

$$(D^2 + D + 1)y = \sin x \text{ کا خصوصی تہہ}$$

Options :

1. ✖  $\sin x$
2. ✖  $-\sin x$
3. ✖  $\cos x$
4. ✔  $-\cos x$

Question Number : 61 Question Id : 23366711387 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

The general solution of  $(D - 2)(D + 1)^2 = 0$ .

$$(D - 2)(D + 1)^2 = 0 \text{ کا عمومی حل}$$

Options :

1. ✖  $c_1 e^{2x} + c_2 e^x + c_3 e^{-x}$
2. ✔  $c_1 e^{2x} + (c_2 + c_3 x) e^{-x}$
3. ✖  $(c_1 \cos x + c_2 \sin x) + c_3 e^{2x}$
4. ✖  $c_1 e^{2x} + (c_2 + c_3 x) e^x$

Question Number : 62 Question Id : 23366711388 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

If  $m = -2, m = -3$  are root of the auxiliary equation of a second order homogeneous differential equation, then the differential equation is

اگر  $m = -2$  ،  $m = -3$  دونوں جو درجی متجانسی ترقی مساوات کے جزو ترقی ہیں تب ترقی مساوات

Options :

1. ✓  $(D^2 + 5D + 6)y = 0$

2. ✗  $(D^2 + 4)y = 0$

3. ✗  $(D^2 - 5D + 6)y = 0$

4. ✗  $(D^2 - 3D + 1)y = 0$

Question Number : 63 Question Id : 23366711389 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

The particular integral of  $f(D)y = e^{ax}$  if  $f(a) \neq 0$ .

اگر  $f(D)y = e^{ax}$  ہے تو  $f(a) \neq 0$  ہونے کی صورت میں خصوصی کلمہ

Options :

1. ✗  $\frac{1}{f(a)} e^{-ax}$

2. ✘  $\frac{e^{ax}}{\phi(a)} \frac{x^m}{m!}$

3. ✔  $\frac{1}{f(a)} e^{ax}$

4. ✘  $\frac{e^{-ax}}{\phi(a)} \frac{x^m}{m!}$

Question Number : 64 Question Id : 23366711390 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

If Q is a function of x, then the value of  $\frac{1}{D-\alpha} Q$  is

اگر  $\alpha$  پر  $Q$  تناسب ہے تب  $\frac{1}{D-\alpha} Q$  کی قدر

Options :

1. ✘  $e^{-\alpha x} \int e^{\alpha x} Q dx$

2. ✔  $e^{\alpha x} \int e^{-\alpha x} Q dx$

3. ✘  $e^{-\alpha x} \int e^{-\alpha x} Q dx$

4. ✘  $e^{\alpha x} \int e^{\alpha x} Q dx$

Question Number : 65 Question Id : 23366711391 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

Find the value  $\frac{1}{D^2} e^{4x} =$

$$\text{قیمت} \longrightarrow = \frac{1}{D^2} e^{4x}$$

Options :

1. ✘  $\frac{1}{4} e^{4x}$

2. ✔  $\frac{1}{16} e^{4x}$

3. ✘  $\frac{1}{12} e^{4x}$

4. ✘  $\frac{1}{8} e^{4x}$

Question Number : 66 Question Id : 23366711392 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

The Wronskian of the differential equation  $\frac{d^2y}{dx^2} - 3\frac{dy}{dx} + 2y = \frac{e^x}{1+e^x}$  is

$$\text{تفریق مساوات کا دائرہ نکالیں} \quad \frac{d^2y}{dx^2} - 3\frac{dy}{dx} + 2y = \frac{e^x}{1+e^x}$$

Options :

1. ✘  $e^x$

2. ✓  $e^{3x}$

3. ✗  $e^{2x}$

4. ✗  $e^{5x}$

Question Number : 67 Question Id : 23366711393 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

The solution of the differential equation is  $\frac{dy}{dx} = \sin(x + y) + \cos(x + y)$

فترقی ماہدت

$$\int \frac{dy}{dx} = \sin(x+y) + \cos(x+y)$$

Options :

1. ✓  $x = \ln\left(1 + \tan\frac{1}{2}(x + y)\right) + c$

2. ✗  $x = \ln(\tan(x + y)) + c$

3. ✗  $x = \ln(x + y + c)$

4. ✗  $x = \tan(x + y + 1) + c$

Question Number : 68 Question Id : 23366711394 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

Solve  $(x^2D^2 - 4xD + 6)y = x^2$  where  $D = \frac{d}{dx}$

جو کہ  $(x^2D^2 - 4xD + 6)y = x^2$  ہے  $D = \frac{d}{dx}$  ہے

Options :

1. ✖  $y = c_1x^2 + c_2x^2 - x^2 \log x^2$
2. ✖  $y = c_1x^2 + c_2x^3 - x \log x^2$
3. ✔  $y = c_1x^2 + c_2x^3 - x^2 \log x$
4. ✖  $y = c_1x^2 + c_2x^2 - x \log x$

Question Number : 69 Question Id : 23366711395 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

The polynomial  $2x^2 - 4x + 3$  in terms of Legendre's polynomial is .....

ایبٹوڑی کثیردکسی (اطلاعات میں)  $2x^2 - 4x + 3$  کثیردکسی

Options :

1. ✖  $\frac{1}{3}(4P_2 - 4P_1 + 11P_0)$
2. ✖  $\frac{1}{3}(4P_2 + 12P_1 + 11P_0)$

3. ✖  $\frac{1}{3}(P_2 - 12P_1 + 11P_0)$

4. ✔  $\frac{1}{3}(4P_2 - 12P_1 + 11P_0)$

Question Number : 70 Question Id : 23366711396 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

The linear differential equation  $(x^n D^n + a_1 x^{n-1} D^{n-1} + a_2 x^{n-2} D^{n-2} \dots + a_n) = X$  represents

$$X = (x^n D^n + a_1 x^{n-1} D^{n-1} + a_2 x^{n-2} D^{n-2} + \dots + a_n)$$

خطی لفرقی مساوات  
و اضع رتو

Options :

Cauchy Differential equation

1. ✔ کوشی لفرقی مساوات

Legendre Differential equation

2. ✖ لمینڈری لفرقی مساوات

Gauss Differential equation

3. ✖ غوث نرقتی مساوات

Albert Differential equation

4. ✖ البرٹ نرقتی مساوات

Question Number : 71 Question Id : 23366711397 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

Find the Cartesian equation of the plane passing through the point (3,2,-3) and the normal to the plane is  $4i-2j+5k$ ?

ستویم جو نقطہ (3, 2, -3) سے گزرتا ہے اور ستویم  $4i - 2j + 5k$  کے نارمل ہے اس ستویم کے مساوات کیا ہیں۔

Options :

1. ✓  $4x-2y+5z+7=0$

2. ✖  $3x-2y-3z+1=0$

3. ✖  $4x-y+5z+7=0$

4. ✖  $4x-2y-z+7=0$

Question Number : 72 Question Id : 23366711398 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

There is a rectangular garden of 220 metres  $\times$  70 metres. A path of width 4 metres is built around the garden. What is the area of the path

220  $\times$  70 میٹر کا باغ داروں کے ساتھ 4 میٹر چوڑا راستہ لکھا جائیگا جس کا رقبہ

Options :

1.   $2472m^2$
2.   $2162m^2$
3.   $1836m^2$
4.   $2384m^2$

Question Number : 73 Question Id : 23366711399 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

Which of the following is not the correct formula for representing a plane

مندرجہ ذیل میں سے صحیح و غلط کی نشاندہی کرنے والی جملوں میں سے

Options :

1. ✖  $\vec{r} \cdot \hat{n} = d$
2. ✖  $ax + by + cz = d$
3. ✖  $lx + my + nz = d$
4. ✔  $al + bm + cn = d^2$

Question Number : 74 Question Id : 23366711400 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

If the plane passes through three collinear points  $(x_1, y_1, z_1), (x_2, y_2, z_2), (x_3, y_3, z_3)$   
then which of the following is true

ہم خطی نقطوں  $(x_1, y_1, z_1), (x_2, y_2, z_2), (x_3, y_3, z_3)$  سے گزرنے والی کوئی  
سطح کے مساوات صحیح ہے

Options :

1. ✖  $x_1y_1z_1 + x_2y_2z_2 + x_3y_3z_3 = 0$

2. ✔  $\begin{vmatrix} x_1 & y_1 & z_1 \\ x_2 & y_2 & z_2 \\ x_3 & y_3 & z_3 \end{vmatrix} = 0$

$$3. \times \begin{vmatrix} x_1 \\ y_2 \\ z_3 \end{vmatrix} = 0$$

$$4. \times x_1x_2x_3 + y_1y_2y_3 + z_1z_2z_3 = 0$$

Question Number : 75 Question Id : 23366711401 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

Find the equation of the plane passing through the three points

(2,2,0), (1,2,1), and (-1,2,-2)

یہ تین نقطہ (2,2,0), (1,2,1), (-1,2,-2) سے گزرنے والے  
مستویے کے مساوات لکھنا ہے

Options :

$$1. \checkmark (\vec{r} - (2i + 2j) \cdot [(-i + k) \times (-3i - 2k)] = 0$$

$$2. \times (\vec{r} - (3i - 2j) \cdot [(-i + k) \times (2i - 2k)] = 0$$

$$3. \times (\vec{r} + (2i + 2j) \cdot [(-i - k) \times (-3i - 2k)] = 0$$

$$4. \times (\vec{r} - (2i + 2j) \cdot [(-i - k) \times (3i + 2k)] = 0$$

Question Number : 76 Question Id : 23366711402 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

Two lines are said to be perpendicular if the product of their slope is equal to

دو خطوط آپس میں عمودوار ہیں اگر ان کے سلاپ کے حاصل ضرب کا حاصل مجموعہ صفر ہے۔

Options :

1. ✓ -1
2. ✗ 0
3. ✗ 1
4. ✗  $\frac{1}{2}$

Question Number : 77 Question Id : 23366711403 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

What is the distance of (5, 12) from the origin?

مبدأ سے (5, 12) کا فاصلہ کیا ہے۔

Options :

1. ✗ 5 units
2. ✗ 8 units
3. ✗ 12 units
4. ✓ 13 units

Question Number : 78 Question Id : 23366711404 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

Two lines are said to be parallel if the difference of their slope is

→ دو خطوط متوازی کہلائی گئی ہیں جبکہ ان کا فرق  
— ہو گا

Options :

1. ✖ -1
2. ✔ 0
3. ✖ 1
4. ✖ 2

Question Number : 79 Question Id : 23366711405 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

The equation of a straight line that passes through the point (3, 4) and is perpendicular to the line  $3x+2y+5=0$  is

خط مستقیم جو (3,4) نقطہ سے گزرتی ہے اور  $3x+2y+5=0$  کے ساتھ  
عمودوار ہے اس کے مساوی

Options :

1. ✓  $2x-3y+6=0$

2. ✗  $2x+3y+6=0$

3. ✗  $2x-3y-6=0$

4. ✗  $2x+3y-6=0$

Question Number : 80 Question Id : 23366711406 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

The angle between the line  $\frac{x+1}{2} = \frac{y}{3} = \frac{z-3}{6}$  and the plane  $10x+2y-11z=3$

$10x+2y-11z=3$  سے متعلقہ اور  $\frac{x+1}{2} = \frac{y}{3} = \frac{z-3}{6}$  خط  
 درمیان زاویہ

Options :

1. ✗  $\cos^{-1}\left(\frac{1}{8}\right)$

2. ✗  $\cos^{-1}\left(\frac{8}{21}\right)$

3. ✓  $\sin^{-1}\left(\frac{8}{21}\right)$

4. ✗  $\sin^{-1}\left(\frac{1}{8}\right)$

Question Number : 81 Question Id : 23366711407 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

The center- radius form of a sphere is

مرکز اور شعاع کے ساتھ گولہ کی شکل

Options :

1. ✘  $x^2 + y^2 + z^2 = r^2$

2. ✔  $(x - a)^2 + (y - b)^2 + (z - c)^2 = r^2$

3. ✘  $x^2 + y^2 = r^2$

4. ✘  $(x - a)^2 + (y - b)^2 = r^2$

Question Number : 82 Question Id : 23366711408 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

Two spheres are said to be in touch externally if (where  $d$ =distance between their centres)

دو گولے آپس میں بیرونی طور پر مس کرتے ہیں جبکہ  $d$  ان کے مرکزوں کے درمیان فاصلہ ہے

Options :

1. ✔  $d = r_1 + r_2$

2. ✘  $d = r_1 - r_2$

3. ✘  $r_1 = r_2$

4. ✘  $d = r_1 \cdot r_2$

Question Number : 83 Question Id : 23366711409 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

The centre and radius of the circle of  $x^2 + y^2 + z^2 + 2x - 2y - 4z - 19 = 0$  is

مرکز اور دائرے  $x^2 + y^2 + z^2 + 2x - 2y - 4z - 19 = 0$  کے نصف قطر اس طرح ہیں

Options :

1. ✔  $(-1, 1, 2), 5$

2. ✘  $(1, -1, 2), 4$

3. ✘  $(-1, 1, 2), -4$

4. ✘  $(1, -1, 2), -4$

Question Number : 84 Question Id : 23366711410 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

The general form of the sphere is

گُره کی عمومی مساواتی شکل

Options :

1. ✖  $x^2 + y^2 + z^2 + ux + vy + wz - d = 0$
2. ✖  $x^2 + y^2 + z^2 + 2ux + 2vy + 2wz - d = 0$
3. ✖  $x^2 + y^2 + z^2 + ux + vy + wz + d = 0$
4. ✔  $x^2 + y^2 + z^2 + 2ux + 2vy + 2wz + d = 0$

Question Number : 85 Question Id : 23366711411 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

Find the value of  $\alpha$  where the angle between the plane  $2x - 3y + 6z - 11 = 0$  and the x-axis is  $\sin^{-1}(\alpha)$

x محور اور مستوی  $2x - 3y + 6z - 11 = 0$  کے درمیان زاویہ  
 $\sin^{-1}(\alpha)$  ہے جب  $\alpha$  کی قیمت

Options :

1. ✖  $\frac{\sqrt{2}}{3}$
2. ✔  $\frac{2}{7}$

3. ✖  $\frac{\sqrt{3}}{2}$

4. ✖  $\frac{3}{7}$

Question Number : 86 Question Id : 23366711412 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

The total surface area of a cone with a base radius of “r” and a slanted height of “l” is equal to

مخروط کا مکمل سطحی رقبہ جیسا کہ نصف قطر r اور ڈھلان l ہے

Options :

1. ✖  $\pi r l + 2\pi r^2$

2. ✖  $2\pi r l + 2\pi r^2$

3. ✔  $\pi r l + \pi r^2$

4. ✖  $2\pi r^2$

Question Number : 87 Question Id : 23366711413 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

What is the total surface area of a cone with a radius of 7cm and a height of 24cm

مکمل مخروط کا سطحی رقبہ جگہ نصف قطر 7 سم اور بلندی 24 سم ہے۔

Options :

1. ✘  $710cm^2$
2. ✔  $704cm^2$
3. ✘  $700cm^2$
4. ✘  $725cm^2$

Question Number : 88 Question Id : 23366711414 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

The curved surface area of a cone is  $1980\text{ cm}^2$ , and its radius is 21cm; what is the slanted height of a cone

مخروط کا مثنیٰ سطحی رقبہ 1980 مربع سم ہے اور اس کا نصف قطر 21 سم ہے۔

Options :

1. ✘ 25cm

2. ✘ 38cm

3. ✘ 35cm

4. ✔ 30cm

Question Number : 89 Question Id : 23366711415 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

9). Find the equation of the tangent plane to the sphere  $x^2 + y^2 + z^2 - 4x + 2y - 6z + 5 = 0$  which is parallel to the plane  $3x + 2y - 2z = 0$

سطحی متوازی کے مساوات جو کر رہا  
اور متوازی کے متوازی ہیں

Options :

1. ✘  $3x + 2y - 2z + 3 + 2\sqrt{17} = 0$

2. ✘  $3x + 2y - 2z + 3 - 2\sqrt{17} = 0$

3. ✔  $3x + 2y - 2z + 2 + 3\sqrt{17} = 0$

4. ✘  $3x - 2y - 2z - 3 - 3\sqrt{17} = 0$

Question Number : 90 Question Id : 23366711416 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

A right circular cone height 15cm and base radius 15cm is curved out of a wooden sphere of radius 15cm volume of the remaining wood (in %) is

قائم دائری مخروط جسکی بلندی 15 سم اور داسی نصف قطر 15 سم ہے اور اسے 15 سم نصف قطر والے گولے کو بنایا گیا ہے۔  
بچت ہوئی کی مقدار کی فیصد

Options :

1. ✖ 25
2. ✖ 37.5
3. ✖ 50
4. ✔ 75

Question Number : 91 Question Id : 23366711417 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

Let  $Z_n = \{0, 1, 2, \dots, n - 1\}$  fails to be a group under multiplication modulate

because

$Z_n = \{0, 1, 2, \dots, n-1\}$  ہر 3 عناصر کے تحت کا ضرب سے ہوا گیا ہے۔

Options :

جبکہ بندہ شی خاصیت نا کامیا مہیو

1. ✘ Closure property fails

Closure property holds but not associate

بندہ شی خاصیت صادق مگر ہم شریک نہ ہیو

2. ✘

There is no identity

شناختی قانون واضع نہ ہیو

3. ✘

There is no inverse for an element '0' of the set

معلوس عنصر '0' کے لئے واضع نہ ہیو

4. ✔

Question Number : 92 Question Id : 23366711418 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

If 'a' is non-identity self-inverse element then  $O(a)$  must be

اگر 'a' غیر شناختی مہی معلوس عنصر ہے تب  
 $O(a) = \text{---}$  ہوگا

Options :

1. ✘ 5

2. ✘ 4

3. ✓ 2

4. ✗ 1

Question Number : 93 Question Id : 23366711419 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

The number of generators of a cyclic group of order 60 is

حوری گروپ جیٹا رتے 60 کے مولدوں کی تعداد

Options :

1. ✗ 32

2. ✓ 16

3. ✗ 8

4. ✗ 30

Question Number : 94 Question Id : 23366711420 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

Find the order of the non-abelian group

گھیرا بیلی گروپ کا رشتہ کیا ہے

Options :

1. ✗ 4

2. ✓ 36

3. ✖ 25

4. ✖ 49

Question Number : 95 Question Id : 23366711421 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

Let  $G = \{1, -1, i, -i\}$  is multiplication group then

$\{1, -1, i, -i\} = G$  ایک حقیقی گروپ ہے جس میں

Options :

G is cyclic and 'i' is the only generator

1. ✖

G حوری اور نہ واحد مولد ہوگا

G is must cyclic

2. ✖

G مخصوصی حوری ہوگا

G is cyclic with two generators 'i' and '-i'

3. ✓

G کے دو مولد i اور -i ہونگے

G is cyclic '1' is the only generator

4. ✖

G حوری ہے اور 1 ہی واحد مولد ہوگا

Question Number : 96 Question Id : 23366711422 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

Let  $(G,+)$  be a group. A nonempty subset  $H$  of  $G$  is a subgroup of  $G$  if and only if

اگر  $(G,+)$  ایک گروپ ہے،  $H$  غیر خالی نکت سے ہے  
 $G$  کا، صرف اور صرف  $b \in H$  جب

Options :

1.   $ab^{-1} \in H$

2.   $ab \in H$

3.   $a + (-b) \in H$

4.   $a + b^{-1} \in H$

Question Number : 97 Question Id : 23366711423 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

Let  $O(G)=12$  and the index of a subgroup of  $H$  of  $G$  is 3. then order of  $H$  is

اگر  $O(G)=12$  اور  $H$  کا انڈیکس  $H$  اور  $G$   
 کے لیے 3 ہے، تو  $H$  کا مرتبہ

Options :

1.  2

2.  4

3.  6

4. ✖ 12

Question Number : 98 Question Id : 23366711424 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

Every finite group  $G$  of composite order possesses

ہر متناہی گروپ  $G$  کا مرکب مرتبہ کا حصول

Options :

. improper sub group

1. ✖ غیر واجب تحت گروپ

proper subgroup

2. ✓ واجب تحت گروپ

no subgroup

3. ✖ غیر تحت گروپ

abelian group

4. ✖ اہیلی تحت گروپ

Question Number : 99 Question Id : 23366711425 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

A permutation of the form  $\begin{pmatrix} a_1 & a_2 & \dots & a_k \\ a_2 & a_3 & \dots & a_1 \end{pmatrix}$  is called a ----- of length k.

طول کا درجے مبادلہ  $\begin{pmatrix} a_1 & a_2 & \dots & a_k \\ a_2 & a_3 & \dots & a_1 \end{pmatrix}$  کہلاتا ہے

Options :

1. ✘ permutation  
مبادلہ
2. ✔ cycle  
حوری
3. ✘ transposition  
عیور
4. ✘ matrix  
ماتریس

Question Number : 100 Question Id : 23366711426 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

If  $N$  and  $M$  are normal subgroups of  $G$  and  $M \cap N = \{e\}$  for  $n \in N, m \in M$  then

اگر  $N$  اور  $M$   $G$  کے دو نورمل سبگروپ ہیں اور  $M \cap N = \{e\}$  ہے تو  $n \in N, m \in M$  کے لیے  $nm = mn$  ہوگا۔

Options :

1. ✓  $nm = mn$
2. ✗  $nm \neq mn$
3. ✗  $nm = 1$
4. ✗  $n = m$

Question Number : 101 Question Id : 23366711427 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

If  $G$  is abelian of  $N$  is normal subgroup of  $G$  then  $G/N$  is

اگر  $G$  ایبیلی گروپ ہے تو  $N$  نورمل سبگروپ ہے  $G$  کا تو  $G/N$  ایبیلی ہے۔

Options :

1. ✗ non-abelian
2. ✓ abelian

3. ✖ cyclic حوری

4. ✖ non-cyclic غیر حوری

Question Number : 102 Question Id : 23366711428 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

The order of the symmetric group  $S_n$  on  $n$  symbols is

$S_n$  متناہل گروپ کا مرتبہ  $n$  کے برابر ہے

Options :

1. ✖  $n$

2. ✖  $2^n$

3. ✔  $n!$

4. ✖  $(n-1)!$

Question Number : 103 Question Id : 23366711429 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

If  $N$  is a normal subgroup of a group  $G$  and  $a, b \in G$  then

اگر  $N$  گروپ  $G$  کا ایک نارمل سبگروپ ہے اور  $a, b \in G$  تو

Options :

1. ✖  $NaNb = Nb$

2. ✓  $aNbN = abN$

3. ✗  $NaNb = aN$

4. ✗  $NaNb = Na$

Question Number : 104 Question Id : 23366711430 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

A homomorphism  $\phi: G \rightarrow \bar{G}$  is an isomorphism if.

ہم مارٹیت  $\phi: G \rightarrow \bar{G}$  ویک مارٹیت ہے، جبکہ

Options :

$\phi$  is one to one

1. ✗  $\phi$  یک تا یک متفائل ہے۔

$\phi$  is one to one & onto

2. ✓  $\phi$  یک تا یک دور ہر متفائل

$\phi$  is onto

3. ✗  $\phi$  یک ہر متفائل

$\emptyset$  is neither one to one

$\emptyset$  یک تا ایک تفاضل نہیں ہے

4. ✘

Question Number : 105 Question Id : 23366711431 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

Which one of the following set is not a ring

صورتیہ ذیل میں کونسا سٹ حلقہ نہیں ہے

Options :

1. ✘ set of real numbers

حقیقی اعداد کا سٹ

set of rational numbers

2. ✘

ناحق اعداد کا سٹ

set of natural numbers

3. ✔

طبیعی اعداد کا سٹ

set of integers

4. ✘

صحیح اعداد کا سٹ

Question Number : 106 Question Id : 23366711432 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

If  $R$  is a Boolean ring then

اگر  $R$  بولین حلقہ ہے تب

Options :

1. ✘  $a + a = a, \forall a \in R$
2. ✘  $a + a = 1, \forall a \in R$
3. ✔  $a + a = 0, \forall a \in R$
4. ✘  $a + a = -a, \forall a \in R$

Question Number : 107 Question Id : 23366711433 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

Which one of the following is correct

مندرجہ ذیل میں کونسا صادق ہے

Options :

every integral domain is a field

1. ✘ ہر صحیح علاقہ میدان ہے

An infinite integral domain is field

2. ✘ ہر لامتناہی صحیح علاقہ ایک میدان ہے

A finite integral domain is a field

یہ متناہی صحیح علاقہ ایک میدان ہے

3. ✓

integral domain is a field

صحیح علاقہ ایک میدان ہے

4. ✗

Question Number : 108 Question Id : 23366711434 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

Number of ideals a field has

مثالی تعداد دوہلا میدان

Options :

1. ✗ 3

2. ✗ 1

3. ✗ 0

4. ✓ 2

Question Number : 109 Question Id : 23366711435 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

If  $R$  is a non-zero ring so that  $a^2 = a, \forall a \in R$  then the characteristics of  $R$  is

$\forall a \in R, a^2 = a$   $\Rightarrow$   $R$  ایک غیر صفر حلقہ ہے تب  
تو خصوصاً  $R$  — ہیں

Options :

1. ✓ 2
2. ✗ 3
3. ✗ 4
4. ✗ 6

Question Number : 110 Question Id : 23366711436 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

If  $(G,0)$  is a group of order 24 then  $G$  can have a subgroup order

اگر گروپ  $G$  کا مرتبہ 24 ہے تب  $G$  کتنا گروپ کا  
صورتیہ — ہوگا۔

Options :

1. ✗ 5
2. ✗ 7
3. ✓ 8

4. ✖ 9

Question Number : 111 Question Id : 23366711437 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

A set  $A$  is said to be countable if there exist a function  $f: A \rightarrow \mathbb{N}$  such that

اگر  $f: A \rightarrow \mathbb{N}$  متفاعل ہے تب سٹ  $A$  کو قابل شمار کہا جائے گا

Options :

1. ✓  $f$  is bijective

$f$  ایک دو قسمی متفاعل

2. ✖  $f$  is surjective

$f$  سر جکتیو

3. ✖  $f$  is identity map

$f$  یکساں تنقیدی

$f$  is additive identity

4. ✖

$f$  یکساں جمعیت

Question Number : 112 Question Id : 23366711438 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

Which of the following are true about Dirichlet function

مندرجہ ذیل میں کون سا ڈیرکلیٹ فنکشن کے تحت صادق ہے

Options :

Dirichlet function is continuous everywhere on  $\mathbb{R}$ .

ڈیرکلیٹ فنکشن ہر جگہ  $\mathbb{R}$  پر مسلسل ہے

1. ✘

Dirichlet function is discontinuous everywhere on  $\mathbb{R}$ .

ڈیرکلیٹ فنکشن ہر جگہ  $\mathbb{R}$  پر غیر مسلسل ہے

2. ✔

Dirichlet function is continuous only at rationals.

ڈیرکلیٹ فنکشن ہر جگہ ناطقہ پر

3. ✘

Dirichlet function is discontinuous only at irrationals.

ڈیرکلیٹ فنکشن ہر جگہ ناطقہ پر

4. ✘

Question Number : 113 Question Id : 23366711439 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

Choose the correct option

صادق کا صحیح رو

Options :

Let  $a, b \in \mathbb{R}$  and  $f: (a, b] \rightarrow \mathbb{R}$  continuous on  $(a, b]$  then  $f$  is bounded on  $(a, b]$ .

۱.  $\mu$   $(a, b]$   $\Leftrightarrow$  مسلسل  $f: (a, b] \rightarrow \mathbb{R}$  اور  $a, b \in \mathbb{R}$

تَب  $f$  بیوشی  $\Leftrightarrow$   $\mu$   $(a, b]$

1. ✖

Let  $a, b \in \mathbb{R}$  and  $f: [a, b) \rightarrow \mathbb{R}$  continuous on  $[a, b)$  then  $f$  is bounded on  $[a, b)$ .

۲.  $\mu$   $[a, b)$   $\Leftrightarrow$  مسلسل  $f: [a, b) \rightarrow \mathbb{R}$  اور  $a, b \in \mathbb{R}$

تَب  $f$  بیوشی  $\Leftrightarrow$   $\mu$   $[a, b)$

2. ✖

Let  $a, b \in \mathbb{R}$  and  $f: (a, b) \rightarrow \mathbb{R}$  continuous on  $(a, b)$  then  $f$  is bounded on  $(a, b)$ .

۳.  $\mu$   $(a, b)$   $\Leftrightarrow$  مسلسل  $f: (a, b) \rightarrow \mathbb{R}$  اور  $a, b \in \mathbb{R}$

3. ✖

Let  $a, b \in \mathbb{R}$  and  $f: [a, b] \rightarrow \mathbb{R}$  continuous on  $[a, b]$  then  $f$  is bounded on  $[a, b]$ .

4. ✓  $\mu$   $[a, b]$   $\Leftrightarrow$  مسلسل  $f: [a, b] \rightarrow \mathbb{R}$  اور  $a, b \in \mathbb{R}$

Question Number : 114 Question Id : 23366711440 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

Let  $a, b, c, d \in \mathbb{R}$ . Choose the true statement.

فرض کرد  $a, b, c, d \in \mathbb{R}$  تب صادق عبارت

Options :

There exists a continuous onto function  $f: [a, b] \rightarrow [c, d]$ .

1. ✓  $f: [a, b] \rightarrow [c, d]$  مسلسل متفعل پر بر تفعل موجود هولا

There exists a continuous onto function  $f: [a, b] \rightarrow (a, b)$ .

2. ✗  $f: [a, b] \rightarrow (a, b)$  مسلسل متفعل پر بر تفعل موجود هولا

There exists a continuous onto function  $f: [a, b] \rightarrow [a, b)$ .

3. ✗  $f: [a, b] \rightarrow [a, b)$  مسلسل متفعل پر بر تفعل موجود هولا

There exists a continuous onto function  $f: [a, b] \rightarrow (a, b)$ .

4. ✗  $f: [a, b] \rightarrow (a, b)$  مسلسل متفعل پر بر تفعل موجود هولا

Question Number : 115 Question Id : 23366711441 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

Choose the true statement.

صادقاً عبارتوں میں لپیٹے

Options :

Continuous real valued functions are Lipschitz.

مستطیل حقیقی قدری تقاضا صرف لپس لیٹے ہے

1. ✘

Lipschitz real valued functions are Continuous.

لپس لیٹے حقیقی قدری تقاضا صرف مستطیل ہیں

2. ✔

Uniformly continuous real valued functions are Lipschitz.

یکساں مستطیل حقیقی قدری تقاضا لپس لیٹے ہیں

3. ✘

Continuous real valued functions are uniformly continuous.

مستطیل حقیقی قدری تقاضا ہمیشہ یکساں مستطیل ہیں

4. ✘

Question Number : 116 Question Id : 23366711442 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

The value of  $\lim_{x \rightarrow \infty} \left(1 + \frac{1}{x}\right)^x$

قدر 3 لیا  $\lim_{x \rightarrow \infty} \left(1 + \frac{1}{x}\right)^x$

Options :

1. ✖  $\ln 2$

2. ✖ 1

3. ✔ e

4. ✖  $\infty$

Question Number : 117 Question Id : 23366711443 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

The value of  $\lim_{x \rightarrow \infty} (\tan x \log x)$

قدر 3 لیا  $\lim_{x \rightarrow \infty} (\tan x \log 2)$

Options :

1. ✖ 2

2. ✖ 1

3. ✖ 3

4. ✓ 0

Question Number : 118 Question Id : 23366711444 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

If  $f'(x) = \frac{1}{2-x^2}$  Then what would be the sum of the lower and upper bound of  $f(1)$ , if

$f(0) = 1$  and  $f(x)$  is defined for  $[0, 1]$

دگر  $f'(x) = \frac{1}{2-x^2}$  سے بالائی اور نشیبی حد  $f(1)$  کیا ہوگا

جبکہ  $f(0) = 1$  اور  $f(x)$  کو تعریف  $[0, 1]$  ہے

Options :

1. ✗ 0.5
2. ✗ 1.5
3. ✗ 2.5
4. ✓ 3.5

Question Number : 119 Question Id : 23366711445 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

If  $f$  and  $g$  belong to  $R[a,b]$ , then choose the false statement.

اگر  $f, g$  دونوں  $R[a,b]$  سے متعلق ہیں تب  
کا وہ بیان کوٹا ہے

Options :

the sum  $f + g$  belongs to  $R[a, b]$ .

1. ✘  $f + g$  کا مجموعہ  $R[a, b]$  سے متعلق ہے

the difference  $f - g$  belongs to  $R[a, b]$ .

2. ✘  $f - g$  کا حاصل  $R[a, b]$  سے متعلق ہے

the product  $f \cdot g$  belongs to  $R[a, b]$ .

3. ✘  $f \cdot g$  کا حاصل ضرب  $R[a, b]$  سے متعلق ہے

the quotient  $f/g$  belongs to  $R[a, b]$ .

4. ✔  $f/g$  کا حاصل  $R[a, b]$  سے متعلق ہے

Question Number : 120 Question Id : 23366711446 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

For  $x \in \mathbb{R}$ ,  $\lim_{n \rightarrow \infty} \left( \left( \frac{1}{n} \right) \sin(nx + n) \right) =$

Since  $x \in \mathbb{R}$   $\lim_{n \rightarrow \infty} \left( \left( \frac{1}{n} \right) \sin(nx + n) \right) =$

Options :

1. ✗ -1
2. ✓ 0
3. ✗ 1
4. ✗ 2

Question Number : 121 Question Id : 23366711447 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

Find  $\sum_{n=1}^{\infty} \frac{1}{n(n+1)(n+2)} =$

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

Options :

1. ✗  $-\frac{1}{2}$
2. ✗ 0

3. ✘  $\frac{1}{2}$

4. ✔  $\frac{1}{4}$

Question Number : 122 Question Id : 23366711448 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

Function  $f$  should be \_\_\_\_\_ on  $[a, b]$  according to Rolle's theorem.

روں کے تحت متواصل  $f$  —————  
 $[a, b]$  پر ہے

Options :

continuous

1. ✔ مسلسل

non-continuous

2. ✘ غیر مسلسل

integral

3. ✘ کامل

non-existent

4. ✘

مکسر موجود

Question Number : 123 Question Id : 23366711449 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

What are/is the conditions to satisfy Lagrange's mean value theorem?

اگر ایچ ڈی میں فور گلیب صداقت بخشے کے لئے لازمی حالت

Options :

f is continuous on (a, b)

f مسلسل ہے (a, b) پر

1. ✘

f is differentiable on (a, b)

f تفوقاً یویر ہے (a, b) پر

2. ✘

f is differentiable and continuous on (a, b)

f مسلسل اور تفوقاً یویر ہے (a, b) پر

3. ✔

$f$  is differentiable and non-continuous on  $(a, b)$

$f$  تفرق پذیر اور غیر مسلسل ہے  $(a, b)$  پر

4. ✖

Question Number : 124 Question Id : 23366711450 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

Check about the continuity of function given by  $f(x) = \sqrt{x}$  in interval  $[0, 2]$

تعملاً  $f(x) = \sqrt{x}$  کا عرصہ  $[0, 2]$  سے وضع ہے اس کا جائزہ کرو

Options :

Discontinuity everywhere

ہر جگہ غیر مسلسل ہے

1. ✖

can't say about continuity of  $f$

غیر طے شدہ ہے  $f$  کے لیے

2. ✖

it is not uniformly continuous

$f$  یگانہ مسلسل نہیں ہے

3. ✖

it is uniformly continuous

f کیاں مسلسل ہے

4. ✓

Question Number : 125 Question Id : 23366711451 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

The value of 'x' for which the function  $f(x) = \frac{x^2-3x-4}{x^2+3x-4}$  is not continuous are

ف (x) =  $\frac{x^2-3x-4}{x^2+3x-4}$  کی قیمت ہے

Options :

1. ✗ 4 and -1
2. ✗ 4 and 1
3. ✓ -4 and 1
4. ✗ -4 and -1

Question Number : 126 Question Id : 23366711452 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

Find  $\|P\|$  for the partition  $P = \{1,4,5,8,13\}$

||P|| کا جز تقسیم {1, 4, 5, 8, 13}

Options :

1. ✘ 1

2. ✘ 3

3. ✔ 5

4. ✘ 7

Question Number : 127 Question Id : 23366711453 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

If  $f: [a, b] \rightarrow \mathbb{R}$  is integrable on  $[a, b]$ . then---- where  $M$  and  $m$  are supremum and infimum of  $f$  on  $[a, b]$ .

اگر  $f: [a, b] \rightarrow \mathbb{R}$   $[a, b]$  پر تعریف شدہ  $M$  اور  $m$  کے درمیان  $[a, b]$  پر  $f$  کی انٹیگرل کی قیمت  $\int_a^b f(x) dx$   $M(b-a)$  اور  $m(b-a)$  کے درمیان ہوگی۔

Options :

1. ✘  $m(b-a) > \int_a^b f(x) dx > M(b-a)$

2. ✘  $m(b-a) \geq \int_a^b f(x) dx \geq M(b-a)$

3. ✔  $m(b-a) \leq \int_a^b f(x) dx \leq M(b-a)$

4. ✘  $m(b-a) < \int_a^b f(x) dx < M(b-a)$

Question Number : 128 Question Id : 23366711454 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

What is the value of the given,  $\lim_{x \rightarrow 0} \left( \frac{2}{x} \right)$

دے دیے گئے ہیں کہ  $\lim_{x \rightarrow 0} \frac{2}{x}$

Options :

1. ✓  $\infty$

2. ✗ 0

3. ✗  $\frac{1}{2}$

4. ✗  $\frac{3}{2}$

Question Number : 129 Question Id : 23366711455 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

Find  $\int_0^8 x dx =$

دے دیے گئے ہیں کہ  $\int_0^8 x dx =$

Options :

1. ✗ 34

2. ✓ 32

3. ✖ 21

4. ✖ 24

Question Number : 130 Question Id : 23366711456 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

What will be nature of the  $f(x) = 10 - 9x + 6x^2 - x^3$  for  $x < 1$

کے لیے کیا ہوگی ————— کے لیے مثبت ثابت کیا ہوگی  $f(x) = 10 - 9x + 6x^2 - x^3$

Options :

Decreases

1. ✓ تنزلی

Increases

2. ✖ اضافی

Cannot be determined for  $x < 1$ 

3. ✖ کے لیے ہر طے نہیں کر سکتے

A constant function

4. ✖ مستقل تفاعل

Question Number : 131 Question Id : 23366711457 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

Let  $V$  be a vector space over field  $F$  then which are of the following is incorrect

میدان  $F$  پر  $V$  سمتہ فضائیہ ہے یہ  $V$  متغیر ڈیل میں  
کا ڈب بیان کو نا ہے

Options :

$V$  is an abelian group under addition

1. ✘  $V$  دیلی گروپ ہے عمل جمع کے تحت

There must be two binary operations in  $V$

2. ✔  $V$  میں دو دکنی عمل کاروں ہوں

$V$  is closed w.r.t scalar multiplication

3. ✘  $V$  بندشی ہے عددیہ ضرب پر

$V$  is an abelian group under multiplication

4. ✘  $V$  دیلی گروپ ہے عمل ضرب کے تحت

Question Number : 132 Question Id : 23366711458 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

If a vector  $u = (1, -2, k)$  in  $R^3$  be a linear combination of vector  $v = (3, 0, -2)$  and

$w = (2, -1, -5)$  then

اگر  $u = (1, -2, k)$   $R^3$  میں جو  $v = (3, 0, -2)$  اور  $w = (2, -1, -5)$  کا خطی اجتماع ہے تب

Options :

1. ✓  $k = -8$

2. ✗  $k$  can be any real number

3. ✗  $k = 8$

4. ✗  $k = -3$

$k$  کوئی بھی حقیقی عدد ہو

Question Number : 133 Question Id : 23366711459 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

If vector  $(x_1, x_2, x_3, x_4)$ ,  $(y_1, y_2, y_3, y_4)$ ,  $(z_1, z_2, z_3, z_4)$ ,  $(w_1, w_2, w_3, w_4)$  are linearly independent in  $R^4$  if  $\alpha, \beta, \gamma, \delta$  are scalars then  $\alpha(x_1, x_2, x_3, x_4) + \beta(y_1, y_2, y_3, y_4) + \gamma(z_1, z_2, z_3, z_4) + \delta(w_1, w_2, w_3, w_4) = 0$  then the value of  $\alpha + \beta + \gamma + \delta$  is

اگر  $(x_1, x_2, x_3, x_4)$ ,  $(y_1, y_2, y_3, y_4)$ ,  $(z_1, z_2, z_3, z_4)$ ,  $(w_1, w_2, w_3, w_4)$  خطی خود مختار  $R^4$  میں ہیں اور  $\alpha, \beta, \gamma, \delta$  عددیہ ہیں تب  $\alpha(x_1, x_2, x_3, x_4) + \beta(y_1, y_2, y_3, y_4) + \gamma(z_1, z_2, z_3, z_4) + \delta(w_1, w_2, w_3, w_4) = 0$  تو قیمت  $\alpha + \beta + \gamma + \delta =$

Options :

1. ✘ 4
2. ✔ 0
3. ✘ -4
4. ✘ 2

Question Number : 134 Question Id : 23366711460 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

Let  $S = \{(-3, 5, 2), (0, 2, -2), (8, -1, \frac{1}{2}), (-4, 1, 0)\}$  be a subset of a vector space  $R^3$  then

فرض کرو  $S = \{(-3, 5, 2), (0, 2, -2), (8, -1, \frac{1}{2}), (-4, 1, 0)\}$  مت مست ہے  
ایک مستیہ فضا ہے  $R^3$  پر مت

Options :

S is linearly independent since it has finite vectors

1. ✘ S خطی خود مختار ہے جبکہ یہ متناہی فضا ہے

S is linearly independent since it has more than three vectors

2. ✘ S خطی خود مختار ہے جبکہ یہ تین سے زائد مستیہ رکھتا ہے

S is linearly dependent since it has finite vectors

3. ✘ S خطی تابع جبکہ یہ متناہی مستیہ رکھتا ہے

S is linearly dependent since it has more than three vectors

4. ✔ S خطی تابع ہے جبکہ یہ 3 سے زائد مستیہ رکھتا ہے

Question Number : 135 Question Id : 23366711461 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

Which one of the following sets of vectors in  $R^3$  are linearly independent

مندرجہ ذیل سمتیوں کے سٹ  $R^3$  خطی خود تابع ہے .

Options :

1. ✘  $\{(0,0,1), (0,1,0), (0,1,1)\}$
2. ✔  $\{(0,1,0), (1,0,1), (1,1,0)\}$
3. ✘  $\{(1,0,0), (0,1,0), (0,0,0)\}$
4. ✘  $\{(1,0,0), (0,1,0), (1,1,0)\}$

Question Number : 136 Question Id : 23366711462 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

Which of the following is not a linear transformation

مندرجہ ذیل میں کون سا خطی (ستعمال نہیں ہے)

Options :

$T: V_3(R) \rightarrow V_3(R)$  is defined by  $T(x, y, z) = (2x - 3y, 7y + 2z)$

1. ✘  $T(x, y, z) = (2x - 3y, 7y + 2z)$  ہے اور ضلع کیا گیا ہے  $T: V_3(R) \rightarrow V_3(R)$



3. ✖  $\dim W < \dim V$

4. ✖  $\dim W = 0$

Question Number : 138 Question Id : 23366711464 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

Let  $U$  and  $V$  be two vector spaces over the same field  $R$ . if  $T: U \rightarrow V$  be a linear map the which one of the following is incorrect

میدان  $R$  پر  $U$  اور  $V$  دو سمتیہ فضا ہیں اور  $T: U \rightarrow V$  خطی نقیشتی ہے جسے مندرجہ ذیل میں گامڈب کیا ہے

Options :

1. ✖  $T(u_1 - u_2) = T(u_1) - T(u_2), u_1, u_2 \in U$

2. ✖  $T(u_1 + u_2) = T(u_1) + T(u_2), u_1, u_2 \in U$

3. ✔  $T(u_1 \cdot u_2) = T(u_1) \cdot T(u_2)$

4. ✖  $T(3u_1 + 2u_2) = 3T(u_1) + 2T(u_2)$

Question Number : 139 Question Id : 23366711465 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

Let  $T: \mathbb{R}^2 \rightarrow \mathbb{R}^2$  such that  $T(1,2)=(2,3)$  and  $T(0,1)=(1,4)$  then

زیر  $T: \mathbb{R}^2 \rightarrow \mathbb{R}^2$  جسکے  $T(1,2)=(2,3)$  اور  $T(0,1)=(1,4)$

Options :

T is not linear

1. ✘  $T$  خطی نہیں ہے

T is linear but not unique

2. ✘  $T$  خطی مگر منفرد نہیں

T is linear and unique

3. ✔  $T$  خطی اور منفرد ہے

T may or may not be linear

4. ✘  $T$  خطی ہو یا نہ ہو

Question Number : 140 Question Id : 23366711466 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

Let  $T: \mathbb{R}^2 \rightarrow \mathbb{R}^2$  such that  $T(1,1)=(2,0)$  and  $T(0,1)=(1,-1)$  then

اگر  $T: \mathbb{R}^2 \rightarrow \mathbb{R}^2$  جیسے  $T(1,1)=(2,0)$  اور  $T(0,1)=(1,-1)$  ہے

Options :

1. ✘  $T(5,4)=(5,4)$
2. ✘  $T(5,4)=(1,0)$
3. ✘  $T(5,4)=(10,8)$
4. ✔  $T(5,4)=(9,1)$

Question Number : 141 Question Id : 23366711467 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

Let  $T: U \rightarrow V$  be a linear map the

وُضَرَ  $T: U \rightarrow V$  خطی تَنَقِیْشِی ہے

Options :

$R(T)$  is a subspace of  $U$  and  $N(T)$  is a subspace of  $V$

1. ✘

$R(T)$  رَکْت فِضَاءِ  $U$  کا اور  $N(T)$  رَکْت فِضَاءِ  $V$  کا

$N(T)$  is a subspace of  $U$  but  $R(T)$  is not a subspace of  $V$

$N(T)$  تحت فضاہ  $U$  کا مگر  $R(T)$  تحت فضاہ  $V$  کا نہیں ہے۔

2. ✘

$R(T)$  is a subspace of  $V$  and  $N(T)$  is a subspace of  $U$

$R(T)$  تحت فضاہ  $V$  کا اور  $N(T)$  تحت فضاہ  $U$

3. ✔

$R(T)$  is a subspace of  $V$  but  $N(T)$  is not a subspace of  $U$

$R(T)$  تحت فضاہ  $V$  کا مگر  $N(T)$  تحت فضاہ  $U$  کا نہیں ہے۔

4. ✘

Question Number : 142 Question Id : 23366711468 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

Let  $T: \mathbb{R}^3 \rightarrow \mathbb{R}^3$  be a linear map defined by  $T(x_1, x_2, x_3) = (x_1, x_2, 0)$  then rank of  $T$  is

اگر  $T = \mathbb{R}^3 \rightarrow \mathbb{R}^3$  ایک خطی تبدیلی ہے تو  $T(x_1, x_2, x_3) = (x_1, x_2, 0)$  سے  
 وضع ہوتی ہے  $T$  کا درجہ

Options :

1. ✘ 0

2. ✘ 1

3. ✓ 2

4. ✗ 3

Question Number : 143 Question Id : 23366711469 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

Let  $T: U \rightarrow V$  be a linear map and  $U$  is finite dimensional vector space then which one of the following is correct

اگر  $T: U \rightarrow V$  ایک خطی تبدیلی ہے  $U$  متناہی البعدی  
سہ فضا ہے تب صحیح طور پر دلیل میں

Options :

1. ✗  $\dim R(T) + \dim V = \dim U$

2. ✗  $\dim R(T) + \dim N(T) = \dim V$

3. ✗  $\dim R(T) + \dim U = \dim N(T)$

4. ✓  $\dim R(T) + \dim N(T) = \dim U$

Question Number : 144 Question Id : 23366711470 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

The minimum and maximum eigenvalues of the matrix  $\begin{bmatrix} 1 & 1 & 3 \\ 1 & 5 & 1 \\ 3 & 1 & 1 \end{bmatrix}$  are -2 and 6,

respectively. What is the other eigenvalue

اقل ترین اور عظم ترین ایگن قدریں ماٹریس  $\begin{bmatrix} 1 & 1 & 3 \\ 1 & 5 & 1 \\ 3 & 1 & 1 \end{bmatrix}$  اور -2 اور 6 ہیں جب کہ دوسرے ایگن قدریں

Options :

1. ✘ 5
2. ✔ 3
3. ✘ 1
4. ✘ -1

Question Number : 145 Question Id : 23366711471 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

The characteristic equation of matrix  $A = \begin{bmatrix} 2 & -1 & 1 \\ -1 & 2 & -1 \\ 1 & -1 & 2 \end{bmatrix}$  is

ماتریس  $A = \begin{bmatrix} 2 & -1 & 1 \\ -1 & 2 & -1 \\ 1 & -1 & 2 \end{bmatrix}$  کا امیاری مساوات

Options :

1. ✘  $\lambda^3 + 6\lambda^2 + 9\lambda + 4 = 0$
2. ✘  $\lambda^3 - 6\lambda^2 - 9\lambda + 4 = 0$
3. ✔  $\lambda^3 - 6\lambda^2 + 9\lambda - 4 = 0$
4. ✘  $\lambda^3 - 6\lambda^2 + 12\lambda - 4 = 0$

Question Number : 146 Question Id : 23366711472 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

In an inner product space  $V(F)$  for  $a \in F$ ,  $\alpha, \beta, \gamma \in V$ ,  $(\alpha, a\beta + a\gamma)$

$$\rightarrow \text{خطی حاصل ضرب فضا } V(F) = \alpha, \beta, \gamma \in V, a \in F$$

$$\rightarrow (\alpha, a\beta + a\gamma)$$

Options :

1. ✘  $a(\alpha, \beta) + a(\alpha, \gamma)$

2. ✘  $\bar{a}(\beta, \alpha) + \bar{a}(\gamma, \alpha)$

3. ✔  $\bar{a}(\alpha, \beta) + \bar{a}(\alpha, \gamma)$

4. ✘  $\bar{a}(\overline{\alpha, \beta}) + \bar{a}(\overline{\alpha, \gamma})$

Question Number : 147 Question Id : 23366711473 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

If  $\alpha, \beta$  are orthogonal unit vectors, then  $\|\alpha - \beta\| =$

اگر  $\alpha, \beta$  متعامد یونٹ ویکٹرز ہیں تو  $\|\alpha - \beta\| =$

Options :

1. ✘ 0

2. ✘ 1

3. ✔  $\sqrt{2}$

4. ✘ 2

Question Number : 148 Question Id : 23366711474 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Correct Marks : 1 Wrong Marks : 0

If  $\alpha = (-1, 0, 1), \beta = (2, 0, -2)$  then  $\|\alpha + \beta\| =$

اگر  $\alpha = (-1, 0, 1)$  اور  $\beta = (2, 0, -2)$  تو  $\|\alpha + \beta\| =$

Options :

1. ✖ 0

2. ✖ 1

3. ✖ 2

4. ✔  $\sqrt{2}$ 

Question Number : 149 Question Id : 23366711475 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

The vector of unit length orthogonal to  $\alpha = (2, -1, 6)$  in  $V_3(R)$  w.r.to standard inner product is

اکاؤی طول والا سٹیپل  $\alpha = (2, -1, 6)$  کے عمودوار  $V_3(R)$  میں بیڈریف معیاری دائروں حاصل فریب

Options :

1. ✔  $(\frac{2}{3}, -\frac{2}{3}, -\frac{1}{3})$ 2. ✖  $(2, -2, -1)$ 3. ✖  $(1, 1, 1)$ 4. ✖  $(0, 0, 0)$ 

Question Number : 150 Question Id : 23366711476 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

Let  $W$  be a subspace of a finite-dimensional vector space  $V(F)$  then  $\dim(V/W) =$

متناهي البعدی سہ فضا  $V(F)$  کا  $W$  فضا ہے  
 جب  $\dim \frac{V}{W}$

Options :

1. ✗  $\dim W - \dim V$
2. ✓  $\dim V - \dim W$
3. ✗  $\dim V + \dim W$
4. ✗ 0