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 8th June 2024 Shift 1
Subject Name :	MATHEMATICS
Creation Date :	2024-06-13 10:31:22
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Share Answer Key With Delivery Engine :	Yes
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MATHEMATICS

Group Number :	1
Group Id :	87326533
Group Maximum Duration :	0
Group Minimum Duration :	120
Show Attended Group? :	No
Edit Attended Group? :	No
Break time :	0
Group Marks :	150

General English

Section Id :	873265159
Section Number :	1
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	21
Number of Questions to be attempted :	21
Section Marks :	25
Maximum Instruction Time :	0
Sub-Section Number :	1
Sub-Section Id :	873265191

Question Shuffling Allowed : No

Question Id : 8732654833 Question Type : COMPREHENSION Sub Question Shuffling Allowed : Yes Group Comprehension Questions : No Question Pattern Type : NonMatrix

Question Numbers : (1 to 5)

Question Label : Comprehension

1-5 Questions : Read the following passage and answer the questions that follow :

Our present idea about the motion of bodies dates back to Galileo and Newton. Before that people believed in Aristotle, who said that the natural state of a body was to be at rest and that it moved only if driven by a force or impulse. It followed that a heavy body should fall faster than a lighter one, because it would have a greater pull towards the earth.

The Aristotelian tradition also held that one could work out all the laws that govern the universe by pure thought; it was not necessary to check by observation. So no one until Galileo bothered to see whether bodies of different weight did in fact fall at different speeds. It is said that Galileo demonstrated that Aristotle's belief was false by dropping weights from the leaning tower of Pisa. The story is almost certainly untrue, but Galileo did do something equivalent: he rolled balls of different weights down a smooth slope. The situation is similar to that of heavy bodies falling vertically, but it is easier to observe because the speeds are smaller. Galileo's measurements indicated that each body increased its speed at the same rate, no matter what its weight. For example, if you let go off a ball on a slope that drops by one meter for every ten meters you go along, the ball will be travelling down the slope at a speed of about one meter per second after one second, two meters per second after two seconds, and so on, however heavy the ball. Of course a lead weight would fall faster than a feather, but that is only because a feather is slowed down by air resistance. If one drops two bodies that don't have much air resistance, such as two different lead weights, they fall at the same rate.

Sub questions

Question Number : 1 Question Id : 8732654834 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

Our preset idea of motion dates back to_____?

Options :

1. ✖ Aristotle

2. ✖ Plato

3. ✖ Copernicus

4. ✔ Galileo

Question Number : 2 Question Id : 8732654835 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Correct Marks : 1 Wrong Marks : 0

According to the Aristotelian tradition the laws of the universe can be understood by _____?

Options :

1. ✖ Logic

2. ✔ Thought

3. ✖ Faith

4. ✖ Observation

Question Number : 3 Question Id : 8732654836 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Correct Marks : 1 Wrong Marks : 0

Which of the following falls down faster?

Options :

1. ✖ Feather

2. ✖ Ball

3. ✖ Nothing

4. ✔ Lead

Question Number : 4 Question Id : 8732654837 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Correct Marks : 1 Wrong Marks : 0

Find the word in the passage which means 'opposition'?

Options :

1. ✖ Logic

2. ✖ Thought

3. ✖ Faith

4. ✔ Resistance

Question Number : 5 Question Id : 8732654838 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Correct Marks : 1 Wrong Marks : 0

Find the antonym for 'equivalent' in the passage

Options :

1. ✖ Identical

2. ✖ Similar

3. ✔ Different

4. ✖ Opposite

Sub-Section Number : 2
Sub-Section Id : 873265192
Question Shuffling Allowed : Yes

Question Number : 6 Question Id : 8732654839 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Correct Marks : 1 Wrong Marks : 0

The match _____by the time we reached the stadium.

Options :

1. ✔ had started

2. ✖ was starting

3. ✖ would have started

4. ✖ started

Question Number : 7 Question Id : 8732654840 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Correct Marks : 1 Wrong Marks : 0

My mobile phone is stolen (Choose the correct Active Voice)

Options :

1. ✖ Some steals my mobile phone.

2. ✔ Someone has stolen my mobile phone

A thief has stolen my mobile phone

3. ✖

My mobile phone is stolen by someone.

4. ✖

Question Number : 8 Question Id : 8732654841 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

I said to my friend "Stop smoking" (Choose the correct Indirect Speech)

Options :

I ordered my friend that he should stop smoking

1. ✖

I advised my friend to stop smoking

2. ✔

I told my friend that smoking is injurious to health

3. ✖

I requested my friend not to smoke

4. ✖

Question Number : 9 Question Id : 8732654842 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

She was ignorant. She admitted it. (Combine these two sentences into one Simple Sentence)

Options :

She was ignorant but he admitted it

1. ✖

Being ignorant, she admitted it

2. ✖

3. ✖ Despite her ignorance, she admitted it

4. ✔ She admitted her ignorance

Question Number : 10 Question Id : 8732654843 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Correct Marks : 1 Wrong Marks : 0

Find the correct sentence among the following :

Options :

1. ✖ One of the boys are making lot of noise in the class.

2. ✖ Furnitures are properly arranged in the hall.

3. ✔ He is too weak to walk

4. ✖ I could not be able to get through the examination inspite of my hard work.

Question Number : 11 Question Id : 8732654844 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Correct Marks : 1 Wrong Marks : 0

Choose the appropriate preposition:

She has got lovely gold bangles____ her arm

Options :

1. ✖ in

2. ✖ by

3. ✔ on

4. ✖ at

Question Number : 12 Question Id : 8732654845 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

Identify the tense in the following sentence:

How long have you been reading that book?

Options :

1. ✖ Past simple

2. ✖ Present continuous

3. ✖ Past continuous

4. ✔ Present perfect continuous

Question Number : 13 Question Id : 8732654846 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

Choose the correct spelling:

Options :

1. ✔ Playwright

2. ✖ Playright

3. ✖ Playwrite

4. ✖ Playerite

Question Number : 14 Question Id : 8732654847 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Correct Marks : 1 Wrong Marks : 0

Transform the following Simple sentence into a Compound sentence :

Being a vegetarian, she doesn't eat meat.

Options :

1. ✔ She is vegetarian; she does not eat meat

2. ✖ She, a vegetarian do not eat meat.

3. ✖ She is a vegetarian, so she does not eat meat.

4. ✖ She is vegetarian….not eat meat.

Question Number : 15 Question Id : 8732654848 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Correct Marks : 1 Wrong Marks : 0

Turn into direct speech :

Ramya told me that she wants to go to Canada next year.

Options :

1. ✔ Ramya said, "I want to go to Canada next year".

2. ✖ Ramya says, “I want to go to Canada next year”.

3. ✖ Ramya said, she wishes “to go to Canada next year”.

4. ✖ Ramya says, “I wanted to go to Canada next year”.

Question Number : 16 Question Id : 8732654849 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Correct Marks : 1 Wrong Marks : 0

What is the synonym for the word ‘Synonym’?

Options :

1. ✖ Supremacist

2. ✖ Opposite

3. ✔ Similar

4. ✖ Infinitude

Question Number : 17 Question Id : 8732654850 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Correct Marks : 1 Wrong Marks : 0

Turn into reported speech :

I am going away for a few days.

Options :

1. ✖ She says she is going away for a few days

2. ✖ She said she is going away for a few days

3. ✔ She said that she was going away for a few days

4. ✖ She said that she is going away for a few days

Question Number : 18 Question Id : 8732654851 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Correct Marks : 1 Wrong Marks : 0

Choose the correct sentence.

Options :

1. ✖ Her hairs were grown

2. ✔ Her hair is grown

3. ✖ Her hair are grown

4. ✖ Her hairs are grown

Question Number : 19 Question Id : 8732654852 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Correct Marks : 1 Wrong Marks : 0

He tried to kill the snake, _____ it went into the anthill.

Options :

1. ✖ instead

2. ✖ for

3. ✖ still

4. ✔ however

Question Number : 20 Question Id : 8732654853 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Correct Marks : 1 Wrong Marks : 0

He crossed _____ Indian ocean twice.

Options :

1. ✔ the

2. ✖ a

3. ✖ an

4. ✖ zero article

Question Number : 21 Question Id : 8732654854 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Correct Marks : 1 Wrong Marks : 0

Which among the following is the correct sentence?

Options :

1. ✖ Ranadhir is going to arrive tomorrow

2. ✖ Ranadhir will have arrive tomorrow

3. ✔ Ranadhir will arrive tomorrow

Ranadhir will be arrive tomorrow

4. ✖

Question Number : 22 Question Id : 8732654855 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Correct Marks : 1 Wrong Marks : 0

Identify the correct sentence.

Options :

The porter insisted helping us with baggages.

1. ✖

The porter insisted to help us with our baggage.

2. ✖

The porter insisted to carry a baggage.

3. ✖

The porter insisted on helping us with our baggage.

4. ✔

Question Number : 23 Question Id : 8732654856 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Correct Marks : 1 Wrong Marks : 0

In which sentence is the Article “an” used correctly.

Options :

He earns an about thousand rupees a month.

1. ✖

Shakespeare is an renowned dramatist .

2. ✖

I had never visited an hospital before.

3. ✖

He has been here about an hour.

4. ✔

Question Number : 24 Question Id : 8732654857 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

Identify the sentence in <u>active voice.</u>

Options :

1. ✖ A kite is being made by the boy.

2. ✖ She was admired very much by him.

3. ✖ English is spoken (by people) in many countries.

4. ✔ Somebody set the huts on fire.

Question Number : 25 Question Id : 8732654858 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

One word Substitutes.

A thing occurring again and again for a long time _____.

Options :

1. ✖ anachronism

2. ✖ expatriate

3. ✔ chronic

4. ✖ coincident

General Knowledge

Section Id : 873265160

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 :	873265193
Question Shuffling Allowed :	Yes

Question Number : 26 Question Id : 8732654859 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Correct Marks : 1 Wrong Marks : 0

In May 2024, who was appointed as the President of GST Appellate Tribunal?

2024 మే లో GST అప్పిలేట్ ట్రిబ్యునల్ ప్రెసిడెంట్‌గా ఎవరు నియమింపబడ్డారు?

Options :

1. ✖ Justice (Retd) K.G.Bala Krishnan
జస్టిస్ (రిటైర్డ్) కె.జి.బాల క్రిష్ణన్

2. ✖ Justice Surya kant
జస్టిస్ సూర్యకాంత్

3. ✔ Justice (Retd) Sanjaya Kumar Misra
జస్టిస్ (రిటైర్డ్) సంజయ కుమార్ మిస్రా

4. ✖ Justice A.S.Bopanna
జస్టిస్ ఎ.ఎస్ బోపన్న

Question Number : 27 Question Id : 8732654860 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Correct Marks : 1 Wrong Marks : 0

The scientists discovered the deepest “Taam Ja” blue hole near which country

శాస్త్రవేత్తలు లోతైన ‘టామ్ జా’ బ్లూ హోల్ ను ఏ దేశ సమీపంలో కనుగొన్నారు?

Options :

1. ✔ Mexico
మెక్సికో

2. ✖ Brazil
బ్రెజిల్

3. ✖ Peru
పెరూ

4. ✖ Chile
ఛిలీ

Question Number : 28 Question Id : 8732654861 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Correct Marks : 1 Wrong Marks : 0

Which Delhi Sultan was known as “Prince of Moneyers”?
“ప్రిన్స్ ఆఫ్ మనీయర్స్” గా పిలువ బడిన ఢిల్లీసుల్తాన్ ఎవరు?

Options :

1. ✖ Alauddin Khalji
అల్లావుద్దీన్ ఖిల్జీ

2. ✖ Firoz shah Tughluq
ఫిరోజ్ షా తుగ్లక్

3. ✖ Balban
బాల్బన్

4. ✔ Muhammad bin Tugluq
మహమ్మద్ బీన్ తుగ్లక్

Question Number : 29 Question Id : 8732654862 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Correct Marks : 1 Wrong Marks : 0

Gandhiji withdrew the non-cooperation movement because of
గాంధీజీ సహాయ నిరాకరణ ఉద్యమాన్ని ఈ కారణంగా విరమించారు.

Options :

1. ✔ Chauri-Chaura incident
చౌరిచౌరా సంఘటన

2. ✖ Jallianwala Bagh massacre
జలియన్ వాలాబాగ్ హత్యాకాండ

3. ✖ Gandhi-Irwin Pact
గాంధి-ఇర్విన్ ఒప్పందం

4. ✖ Poona Pact
పూనా ఒప్పందం

Question Number : 30 Question Id : 8732654863 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Correct Marks : 1 Wrong Marks : 0

Which of the following was not the work of Rabindranath Tagore?
ఈ క్రింది వానిలో రవీంద్రనాథ్ ఠాగూర్ రచన కానిది ఏది?

Options :

1. ✖ Gitanjali
గీతాంజలి

2. ✔ Anandmath
ఆనందమఠ్

3. ✖ Ghare-Baire
ఘరే-బైరే

4. ✖ Gora
గోరా

Question Number : 31 Question Id : 8732654864 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Correct Marks : 1 Wrong Marks : 0

Rukmini Devi Arundale was famous dancer in
రుక్మిణి దేవి అరండేల్ ఏ నాట్యంలో ప్రసిద్ధి చెందారు?

Options :

1. ✖ Kuchipudi
కూచిపూడి

2. ✖ Kathakali
కథాకళి

3. ✖ Kathak
కథక్

4. ✔ Bharatanatyam
భరతనాట్యం

Question Number : 32 Question Id : 8732654865 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Correct Marks : 1 Wrong Marks : 0

Which of the following was the highest water fall in India?
క్రింది వాటిలో భారతదేశంలో ఎత్తైన జలపాతం ఏది?

Options :

1. ✖ Athirampally water falls
అత్తిరాంపల్లి జలపాతం

2. ✔ Kunchikal water falls
కుంచికల్ జలపాతం

3. ✖ Hebbe water falls
హెబ్బె జలపాతం

4. ✖ Jog water falls
జోగ్ జలపాతం

Question Number : 33 Question Id : 8732654866 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Correct Marks : 1 Wrong Marks : 0

Seismology is the study of
సిస్మాలజీ దేనిని అధ్యయనం చేస్తుంది?

Options :

1. ✖ Volcanoes
అగ్నిపర్వతాలు

2. ✖ Cyclones
తుఫానులు

3. ✔ Earthquakes
భూకంపాలు

4. ✖ Tsunamis
సునామీలు

Question Number : 34 Question Id : 8732654867 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Correct Marks : 1 Wrong Marks : 0

Who was the first Chairperson and Managing Director (CMD) of Bharatiya Mahila Bank?

భారతీయ మహిళా బ్యాంక్ యొక్క మొట్ట మొదటి ఛైర్‌పర్సన్ మరియు మేనేజింగ్ డైరెక్టర్ (CMD)ఎవరు?

Options :

1. ✔ Usha Anantha Subramanian
ఉషా అనంత సుబ్రమనియన్

2. ✖ S.M.Swathi
ఎస్.ఎం.స్వాతి

3. ✖ Leena Nair
లీనా నాయర్

4. ✖ Roshini Nadar
రోషిణి నాడార్

Question Number : 35 Question Id : 8732654868 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Correct Marks : 1 Wrong Marks : 0

Narasimhan Committee-II was appointed to recommend reforms on

నరసింహన్ కమిటీ- II క్రింది అంశంపై ఏ సంస్కరణలను సిఫార్సు చేయడానికి నియమింపబడింది.

Options :

1. ✖ Insurance sector
ఇన్సూరెన్స్ రంగం

2. ✖ Poverty
పేదరికం

3. ✖ GST
జియస్‌టి

4. ✔ Banking sector
బ్యాంకింగ్ రంగం

Question Number : 36 Question Id : 8732654869 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Correct Marks : 1 Wrong Marks : 0

Part III of the Constitution of India deals with
భారత రాజ్యాంగంలోని III వ విభాగం దీని గురించి తెలుపుతుంది.

Options :

1. ✖ The Union and its Territory
యూనియన్ మరియు దాని భూభాగం

2. ✖ Citizenship
పౌరసత్వం

3. ✖ Directive Principles of State Policy
ఆదేశిక సూత్రాలు

4. ✔ Fundamental Rights
ప్రాథమిక హక్కులు

Question Number : 37 Question Id : 8732654870 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Correct Marks : 1 Wrong Marks : 0

Who was the first Chief Election Commissioner of India?

భారతదేశపు తొలి ఛీఫ్ ఎలక్షన్ కమీషనర్ ఎవరు?

Options :

1. ✖ S.P. Sen Varma
ఎస్.పి. సేన్ వర్మ

2. ✔ Sukumar Sen
సుకుమార్ సేన్

3. ✖ Kalyan Sundaram
కళ్యాణ సుందరం

4. ✖ T. Swaminathan
టి. స్వామినాథన్

Question Number : 38 Question Id : 8732654871 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

What is the theme of International Earth Day 2024?

అంతర్జాతీయ ధరిత్రీ దినోత్సవం **2024** యొక్క ఇతి వృత్తం ఏది?

Options :

1. ✖ Invest in our planet
ఇన్వెస్ట్ ఇన్ అవర్ ప్లానెట్

2. ✖ Restore our earth
రెస్టోర్ అవర్ ఎర్త్

3. ✔ Planet vs plastics
ప్లానెట్ vs ప్లాస్టిక్స్

Protect our Species

ప్రొటెక్ట్ అవర్ స్పీసీస్

4. ✖

Question Number : 39 Question Id : 8732654872 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

Jim Corbett National Park was mainly the reserve of

జిమ్ కార్బెట్ నేషనల్ పార్క్ ప్రధానంగా వీటి అభయారణ్యం.

Options :

Tigers

పులులు

1. ✔

Lions

సింహాలు

2. ✖

Rhinoceros

ఖడ్గమృగాలు

3. ✖

Crocodiles

మొసళ్ళు

4. ✖

Question Number : 40 Question Id : 8732654873 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

What is the name of the document maintained by IUCN about the rare and endangered species of plants and animals?

అరుదైన మరియు అంతరించిపోతున్న మొక్కల మరియు జంతువుల జాతుల గురించి IUCN నిర్వహిస్తున్న డాక్యుమెంట్ పేరు ఏది?

Options :

1. ✖ Green List
గ్రీన్ లిస్ట్

2. ✔ Red List
రెడ్ లిస్ట్

3. ✖ Black List
బ్లాక్ లిస్ట్

4. ✖ Yellow list
ఎల్లో లిస్ట్

Teaching Aptitude

Section Id :	873265161
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 :	873265194
Question Shuffling Allowed :	Yes

Question Number : 41 Question Id : 8732654874 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Correct Marks : 1 Wrong Marks : 0

The role of a facilitator in classroom is_____.
తరగతి గదిలో ఫెసిలిటేటర్ పాత్ర_____.

Options :

1. ✖ To dictate information to students
విద్యార్థులకు సమాచారాన్ని నిర్దేశించడం

2. ✔ To guide and support student learning
విదార్థుల అభ్యసనానికి మార్గనిర్దేశనం చెయ్యడం మరియు మద్దతు ఇవ్వటం

3. ✖ To administer tests
పరీక్షలను నిర్వహించటానికి

4. ✖ To discipline students
విద్యార్థిని క్రమశిక్షణలో ఉంచటానికి

Question Number : 42 Question Id : 8732654875 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Correct Marks : 1 Wrong Marks : 0

Primarily the development of child is depend on _____.
శిశు వికాసం ప్రాధామికంగా దేనిమీద ఆధారపడి ఉన్నది_____.

Options :

1. ✖ Parents
తల్లిదండ్రులు

2. ✖ Society
సమాజము

3. ✖ School climate
పాఠశాల వాతావరణము

4. ✔ Environment
పర్యావరణము

Question Number : 43 Question Id : 8732654876 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Correct Marks : 1 Wrong Marks : 0

The position of the teacher in teaching learning process.

బోధనా అభ్యసన ప్రక్రియలో ఉపాధ్యాయుని స్థితి

Options :

1. ✔ a leader
నాయకుడు

2. ✖ a dictator
నియంత

3. ✖ a member
సభ్యుడు

4. ✖ a director
దర్శకుడు

Question Number : 44 Question Id : 8732654877 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Correct Marks : 1 Wrong Marks : 0

Effective teaching is a function of

సమర్థవంతమైన బోధనా విధానము

Options :

1. ✖ Teachers satisfaction
ఉపాధ్యాయుని సంతృప్తి

2. ✖ Teacher's honesty and commitment
ఉపాధ్యాయుని నిజాయితి మరియు సంకల్పము

3. ✔ Teacher's making students learn and understand
విద్యార్థులలో అభ్యసన మరియు అవగాహన కల్పించుట

Teachers liking for professional excellence.

ఉపాధ్యాయుని వృత్తి సమర్థత పట్ల అభిలాష

4. ✖

Question Number : 45 Question Id : 8732654878 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

What does the term "learning style" refer to?

లెర్నింగ్ స్టైల్ అనే పదం దేనిని సూచిస్తుంది?

Options :

The speed at which students learn

విద్యార్థులు నేర్చుకునే వేగం

1. ✖

The preferred way a student learns best

విద్యార్థి ఉత్తమంగా నేర్చుకొనే ప్రాధాన్య మార్గం

2. ✔

The number of subjects a student can learn

విద్యార్థి నేర్చుకోగల సబ్జెక్టుల సంఖ్య

3. ✖

The location where learning takes place.

అభ్యాసం జరిగే ప్రదేశం

4. ✖

Question Number : 46 Question Id : 8732654879 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

What does "cognitive development" focus on in the context of education.

విద్యలో జ్ఞానాత్మక వికాసం దేనిపై దృష్టి పెడుతుంది?

Options :

Physical growth of students

విద్యార్థుల శారీరక ఎదుగుదల

1. ✖

Emotional intelligence

2. ✖ భావోద్వేగ మేధస్సు

Mental processes and skills like problem solving and critical thinking.

3. ✔ సమస్య-పరిష్కారము మరియు విమర్శనాత్మక ఆలోచన వంటి మానసిక నైపుణ్యాలు

Social interaction among students.

4. ✖ విద్యార్థుల మధ్య సామాజిక పరస్పర చర్య

Question Number : 47 Question Id : 8732654880 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

Interaction inside the classroom should generate

పరస్పర చర్య ద్వారా తరగతి గదిలో

Options :

Argument

1. ✖ తర్కము

Information

2. ✖ సమాచారము

Ideas

3. ✔ ఆలోచనలు

Controversy

4. ✖ వివాదము

Question Number : 48 Question Id : 8732654881 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

Which one of the following statement is correct.

ఈ క్రింది ప్రకటనలో ఏది సరైనది.

Options :

1. ✖ Syllabus is annexure to the curriculum
సిలబస్ అనేది పాఠ్యాంశాలకు అనుబంధం

2. ✖ Curriculum is the same in all educational institutions.
విద్యా సంస్థలన్నింటిలో పాఠ్యాంశము ఒకటే

3. ✔ curriculum includes both formal and informal education.
అధికారిక, అనధికారక విద్యలో పాఠ్యప్రణాళిక ఒక భాగం

4. ✖ Curriculum does not include method of education.
విద్యలో పాఠ్యప్రణాళిక భాగమై ఉండదు.

Question Number : 49 Question Id : 8732654882 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

Which is the least important factor in teaching

బోధనలో కనీస ప్రాధాన్య కారకము ఏది?

Options :

1. ✔ Punishing the students
విధ్యార్థిని శిక్షించటం

2. ✖ Maintaining discipline in the class
తరగతి గదిలో క్రమశిక్షణ పాటించటం.

3. ✖ Lecturering in impressive way
ఆకట్టుకునే బోధన

Drawing sketches and diagrams on the black board.
నల్లబల్లపై చిత్రములు, బొమ్మలు గీయటం

4. ✖

Question Number : 50 Question Id : 8732654883 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Correct Marks : 1 Wrong Marks : 0

The ability to learn by an individual is
వ్యక్తి అభ్యసన సామర్థ్యము అనగా

Options :

Acquired by the individual
స్వీయ సంపాదన

1. ✖

Developed by the teacher
ఉపాధ్యాయుని ద్వార వృద్ధి చేయబడుట

2. ✖

Absorbed from environment
పర్యావరణము ద్వార గ్రహించుట

3. ✖

Occurred from within
లోపల నుండి సంభవించినది

4. ✔

Mathematics

Section Id :	873265162
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 :	873265195
Question Shuffling Allowed :	Yes

Question Number : 51 Question Id : 8732654884 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

If the general solution of $\frac{dy}{dx} = \frac{1}{x\,secy+7}$ is $x = f(y) + C(secy + tany)$, then $e^{f(y)} =$ _____

$\frac{dy}{dx} = \frac{1}{x\,secy+7}$ యొక్క సార్వత్రిక సాధన $x = f(y) + C(secy + tany)$ అయితే, అప్పుడు $e^{f(y)} =$ _____

Options :

1. ✖ $(1 + \sin y)\, e^{(\sec y+\tan y)}$

2. ✖ $(1 + \sin y)^{(\sec y-\tan y)}$

3. ✔ $(1 + \sin y)^{7(\sec y+\tan y)}$

4. ✖ $(1 + \sin y)\, e^{7(\sec y+\tan y)}$

Question Number : 52 Question Id : 8732654885 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

$\frac{dy}{dx} = \frac{y}{x - \sqrt{xy}}$

$\frac{dy}{dx} = \frac{y}{x-\sqrt{xy}}$ అనేది

Options :

1. ✖ Linear equation in x

x లో ఏకఘాత సమీకరణము

2. ✖ Linear equation in y

y లో ఏకఘాత సమీకరణము

3. ✖ Bernoulli's equation in y
y లో బెర్నౌలీ సమీకరణము

4. ✔ Befrnoulli's equation in x
x లో బెర్నౌలీ సమీకరణము

Question Number : 53 Question Id : 8732654886 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Correct Marks : 1 Wrong Marks : 0

If the equation $\frac{dy}{dx} = \frac{(e^x - tany\ secx\ tanx)}{f(x)sec^2y}$ is an exact equation, then a possible function for $f(x)$ is

సమీకరణము $\frac{dy}{dx} = \frac{(e^x - tany\ secx\ tanx)}{f(x)sec^2y}$ ఒక యథాతథ సమీకరణం అయితే, కి $f(x)$ వీలగు ఒక ప్రమేయము

Options :

1. ✔ $Secx$

2. ✖ $tanx$

3. ✖ $Sinx$

4. ✖ $Cosx$

Question Number : 54 Question Id : 8732654887 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Correct Marks : 1 Wrong Marks : 0

An integrating factor of $y\,dx - x\,dy + (y^2 + y^2x^2)dx + y^2 \sin y\,dy = 0$ is
$y\,dx - x\,dy + (y^2 + y^2x^2)dx + y^2 \sin y\,dy = 0$ యొక్క ఒక సమాకలన గుణకం.

Options :

1. ✔ $\frac{1}{y^2}$

2. ✖ $\frac{1}{1+x^2}$

3. ✖ $\frac{1}{x^2y}$

4. ✖ $\frac{1}{x^2}$

Question Number : 55 Question Id : 8732654888 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

The solution of the equation $(2x\ \cos y+3x^2y)\,dx+(x^3-x^2\ \sin y-y)\,dy=0$ passing through the point $(0,2)$ is

$(2x\ \cos y+3x^2y)\,dx+(x^3-x^2\ \sin y-y)\,dy=0$ సమీకరణము యొక్క $(0,2)$ బిందువు గుండా పోయే సాధన

Options :

1. ✖ $x\ \cos y+x^2y-y=-2$

2. ✖ $x^3\cos y+xy-\frac{y}{2}=-1$

3. ✖ $x\cos y+x^2y-y^2=-4$

4. ✔ $x^2\cos y+x^3y-\frac{y^2}{2}=-2$

Question Number : 56 Question Id : 8732654889 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

The solution of $p^2+4p-5=0$, where $p=\frac{dy}{dx}$ is_____

$p=\frac{dy}{dx}$ అయినప్పుడు $p^2+4p-5=0$ యొక్క సాధన

Options :

1. $(5x+y-c)\ (y-x-c)=0$ ✔

2. $(2x+y-c)\ (y+x-c)=0$ ✖

3. $(4x+y-c)\ (2y-x-c)=0$ ✖

4. $(3x+y-c)\ (y-2x-c)=0$ ✖

Question Number : 57 Question Id : 8732654890 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

The solution of $x^2(y-px)=y\,p^2;\quad p=\frac{dy}{dx}$ is

$x^2(y-px)=y\,p^2,\ \ p=\frac{dy}{dx}$ యొక్క సాధన

Options :

1. $y^2=cx^2+c^2$ ✔

2. $y=cx$ ✖

3. $y=cx^2+\sqrt{x}$ ✖

4. $y=c\sqrt{x}+c^2$ ✖

Question Number : 58 Question Id : 8732654891 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

The Orthogonal trajectories of the family of straight lines $y = mx$ is a family of

$y = mx$ సరళ రేఖల కుటుంబము యొక్క లంబ సంఛేదములు

Options :

1. ✖ Parabolas

పరావలయముల కుటుంబము

2. ✔ Circles

వృత్తముల కుటుంబము

3. ✖ Straight lines

సరళ రేఖల కుటుంబము

4. ✖ Hyperbolas

అతి పరావలయాల కుటుంబము

Question Number : 59 Question Id : 8732654892 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

The orthogonal trajectories of the family of concentric circles with center at (a, b) is

(a, b) వద్ద కేంద్రము గల ఏక కేంద్రీయ వృత్తముల కుటుంబం యొక్క లంబ సంఛేదములు

Options :

1. ✖ Set of all parabolas having axes as coordinate axes.

నిరూపక అక్షాలను అక్షములుగా గలిగిన అన్ని పరావలయాల సమితి.

2. ✔ Set of all concurrent straight lines through (a, b)

(a, b) గుండా పోయే అన్ని అనుషక్త సరళరేఖల సమితి

3. ✖ Set of all concentric ellipses with center at (a,b)

(a,b) వద్ద కేంద్రమును గలిగిన అన్ని ఏక కేంద్రీయ వృత్తముల సమితి

4. ✖ Set of all concentric circles with center at $(0,0)$ and passing through (a,b)

$(0,0)$ వద్ద కేంద్రము గలిగి, (a,b) గుండా పోయే అన్ని ఏక కేంద్రీయ వృత్తముల సమితి.

Question Number : 60 Question Id : 8732654893 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

The general solution of $(D^3+4D)y=\sin 2x$ is

$(D^3+4D)y=\sin 2x$ యొక్క సార్వత్రిక సాధన

Options :

1. ✖ $y=C_1+C_2\cos 2x+C_3\sin 2x-x\ \cos x$

2. ✖ $y=C_1+C_2\cos 2x+C_3\sin 2x-x^2\ \cos x$

3. ✔ $y=C_1+C_2\cos 2x+C_3\sin 2x-\frac{x}{8}\ \sin 2x$

4. ✖ $y=C_1+C_2\cos 2x+C_3\sin 2x-x\ \sin 2x$

Question Number : 61 Question Id : 8732654894 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

The general solution of $\left(1-\frac{1}{p}\right)\left(\frac{y}{p}-x\right)=1$, where $p=\frac{dy}{dx}$ is

$p=\frac{dy}{dx}$ అయినప్పుడు $\left(1-\frac{1}{p}\right)\left(\frac{y}{p}-x\right)=1$ యొక్క సార్వత్రిక సాధన

Options :

1. $y=x+cx^2$ ✖

2. $y=cx+\frac{c^2}{c-1}$ ✔

3. $y=cx+\frac{c-1}{c}$ ✖

4. $y=cy+y^2$ ✖

Question Number : 62 Question Id : 8732654895 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

The general solution of $(D^2-4D+4)y=x^3$

$(D^2-4D+4)y=x^3$ యొక్క సార్వత్రిక సాధన

Options :

1. $y=(c_1+c_2x)\ e^{2x}+\frac{x^3}{4}+\frac{3x^2}{4}+\frac{9x}{8}+\frac{3}{4}$ ✔

2. $y=(c_1+c_2x)\ e^{2x}+\frac{x^2}{4}+\frac{9x}{8}+\frac{1}{4}$ ✖

3. $y=(c_1+c_2x)\ e^{2x}+\frac{x^2}{38}+\frac{9x}{8}-\frac{3}{4}$ ✖

4. $y=(c_1+c_2x)\ e^{2x}+\frac{x^3}{6}+\frac{x^2}{4}+\frac{x}{8}+\frac{3}{4}$ ✖

Question Number : 63 Question Id : 8732654896 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

The complementary function of a linear non-homogeneous n^{th} order differential equation with constant coefficients is

స్థిరరాశులు గుణకాలతో ఒక అసమఘాతీయ ఏకఘాత n-వ తరగతి అవకలన సమీకరణం యొక్క పూరక ప్రమేయం.

Options :

1. ✖ A linear combination of any $(n-1)$ solutions of its homogeneous equation.

దాని సమఘాతీయ సమీకరణం యొక్క ఏవైనా $(n-1)$ సాధనల యొక్క ఒక ఏకఘాత సంయోగం.

2. ✖ A linear combination of any n functions involving $sin\ x$, $cos\ x$, e^x, $log\ x$

$sin\ x$, $cos\ x$, e^x, $log\ x$ లోనయ్యే ఏవైనా n ప్రమేయాల యొక్క ఒక ఏకఘాత సంయోగం

3. ✖ A linear combination of any $\frac{n}{2}$ solutions of its homogeneous equation.

దాని సమఘాతీయ సమీకరణం యొక్క ఏవైనా $\frac{n}{2}$ సాధనల యొక్క ఒక ఏకఘాత సంయోగం.

4. ✔ A linear combination of n linearly independent solutions of its homogeneous equation.

దాని సమఘాతీయ సమీకరణం యొక్క n ఏకఘాత స్వతంత్ర సాధనల యొక్క ఒక ఏకఘాత సంయోగం.

Question Number : 64 Question Id : 8732654897 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

If e^{ax} and $x\,e^{ax}\,(a \neq 0)$ are two linearly independent solutions of a second order linear differential equation $f(D)y = 0$, then the particular integral of $f(D)y = e^{ax}$ is

$e^{ax}, x\,e^{ax}\,(a \neq 0)$లు ఒక ద్వితీయ తరగతి ఏక ఘాత అవకలన సమీకరణం $f(D)y = 0$ యొక్క రెండు ఏక ఘాత స్వతంత్ర సాధనలైతే, అప్పుడు $f(D)y = e^{ax}$ యొక్క ప్రత్యేక సమాకలని

Options :

1. ✖ $x^2\,e^{ax}$

2. ✖ xe^{ax}

3. ✔ $\frac{x^2}{2}e^{ax}$

4. ✖ $\frac{x}{2}e^{ax}$

Question Number : 65 Question Id : 8732654898 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Correct Marks : 1 Wrong Marks : 0

$\frac{1}{D-a}f(x) =$, $(D = \frac{d}{dx})$

Options :

1. ✖ $e^{-ax}\int e^{ax} f(x)dx$

2. ✖ $e^{ax}\int f(x)dx$

$e^{ax}\int f(x)e^{-ax}dx$

3. ✔

$e^{ax}\int f(x)e^{ax}dx$

4. ✖

Question Number : 66 Question Id : 8732654899 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

If $y=ax^2+bx+c$ is particular integral of $\frac{d^2y}{dx^2}-5\frac{dy}{dx}+6y=x^2$, then $a+b+6c$ =

$\frac{d^2y}{dx^2}-5\frac{dy}{dx}+6y=x^2$ యొక్క ప్రత్యేక సమాకలని $y=ax^2+bx+c$ అయితే, అప్పుడు $a+b+6c$ =

Options :

1. ✖ $\frac{1}{6}$

2. ✖ $\frac{19}{108}$

3. ✔ $\frac{3}{2}$

4. ✖ $\frac{7}{108}$

Question Number : 67 Question Id : 8732654900 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

The general solution of $(D^2+9)y=c\cos^3 x$ is

$(D^2+9)y=c\cos^3 x$ యొక్క సార్వత్రిక సాధన

Options :

1. $y = c_1 \cos 3x + c_2 \sin 3x + \frac{x}{24} \sin x + \frac{3}{32} \cos x$

2. $y = c_1 \cos 3x + c_2 \sin 3x + \frac{x}{24} \sin 3x + \frac{3}{32} \cos x$

3. $y = c_1 \cos 3x + c_2 \sin 3x + \frac{x}{24} \sin 3x + \frac{3}{32} \cos 3x$

4. $y = c_1 \cos 3x + c_2 \sin 3x + \frac{x}{24} \sin x + \frac{3}{32} \cos 3x$

Question Number : 68 Question Id : 8732654901 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

The Orthogonal trajectories of the family of curves $r = a\theta$, where a is a parameter, is

a ఒక పరామితి అయినప్పుడు వక్రాల కుటుంబం $r = a\theta$ యొక్క లంబ సంఛేదములు.

Options :

1. $r^2 = c\, e^{\theta^2}$ ✖

2. $r^2 = \frac{c}{2}\, e^{-\theta}$ ✖

3. $\frac{r}{c} = \exp\ (-\frac{\theta^2}{2})$ ✔

4. $\frac{r}{c} = \exp\ (\frac{\theta^2}{2})$ ✖

Question Number : 69 Question Id : 8732654902 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

If $y = c_1 e^{ax} + c_2 e^{-ax} + c_3 \sin ax$ is the general solution of $(D^2 - a^2)y = \sin ax$ (a is a positive integer); $y(0) = 0$ and $y(\pi) = 0$, then $c_1 + c_2 + c_3 =$

$(D^2 - a^2)y = \sin ax$ (a ధనపూర్ణాంకం) ; $y(0) = 0$మరియు $y(\pi) = 0$,
యొక్క సార్వత్రిక సాధన $y = c_1 e^{ax} + c_2 e^{-ax} + c_3 \sin ax$ అయితే, అప్పుడు
$c_1 + c_2 + c_3 =$

Options :

1. $\frac{-1}{2a^2}$ ✔

2. ✖ $\frac{1}{2a^2}$

3. ✖ $2a$

4. ✖ $-2a$

Question Number : 70 Question Id : 8732654903 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Correct Marks : 1 Wrong Marks : 0

The equation of the curve satisfying the differential equation $(1+x^2)\frac{dy}{dx}+2xy-4x^2=0$ and passing through the origin is

అవకలన సమీకరణం $(1+x^2)\frac{dy}{dx}+2xy-4x^2=0$ ను తృప్తి పరుస్తూ మరియు మూలబిందువు గుండా పోయే వక్రం సమీకరణం.

Options :

1. ✔ $3y\,(1+x^2)=\,4x^3$

2. ✖ $3y\,(1+x^3)=\,2x$

3. ✖ $2y\,(1+x^2)=\,3x^2$

4. ✖ $2y\,(x+x^2)=\,3x^3$

Question Number : 71 Question Id : 8732654904 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Correct Marks : 1 Wrong Marks : 0

The equation of the plane which cuts equal intercepts of unit length on the coordinate exes is

నిరూపక అక్షాలపై యూనిట్ పొడవు గల సమాన అంతర ఖండాలను ఛేదనం చేసే తలం యొక్క సమీకరణము

Options :

1. ✖ $x+y+z=3$

2. ✖ $x+y+z=0$

3. ✔ $x+y+z=1$

4. ✖ $2x-y-z=1$

Question Number : 72 Question Id : 8732654905 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Correct Marks : 1 Wrong Marks : 0

The equation of the plane passing through the point (1,2,3) and parallel to the plane $2x + 3y + 6z = 9$ is

(1,2,3) బిందువు గుండా పోతూ మరియు $2x + 3y + 6z = 9$ తలమునకు సమాంతరంగా ఉండే తలం యొక్క సమీకరణం

Options :

1. ✖ $2x + 3y + 6z + 26 = 0$

2. ✔ $2x + 3y + 6z - 26 = 0$

3. ✖ $2x - 3y - 6z = 9$

4. ✖ $2x + 3y - 6z = 26$

Question Number : 73 Question Id : 8732654906 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

The perpendicular distance from the origin to the plane $x+2y-2z+9=0$ is

మూలబిందువు నుండి $x+2y-2z+9=0$ తలమునకు గల లంబదూరము

Options :

1. ✖ 2

2. ✔ 3

3. ✖ 4

4. ✖ 5

Question Number : 74 Question Id : 8732654907 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

The angle between the two planes $x-y+z=6$ and $2x+y-z=9$ is

$x-y+z=6$ మరియు $2x+y-z=9$ తలముల మధ్య గల కోణం

Options :

1. ✖ $\frac{\pi}{3}$

2. ✖ $\frac{\pi}{4}$

3. ✔ $\frac{\pi}{2}$

4. ✖ π

Question Number : 75 Question Id : 8732654908 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

The equation of the plane through the line of intersection of the planes $x + 3y + 4z - 7 = 0,\ x + y + z - 1 = 0$ and perpendicular to the plane $x - 3y + 5z - 1 = 0$ is

$x + 3y + 4z - 7 = 0,\ x + y + z - 1 = 0$ తలముల ఛేదన రేఖ గుండా పోతూ మరియు $x - 3y + 5z - 1 = 0$ తలమునకు లంబంగా ఉండే తలము సమీకరణం.

Options :

1. ✖ $2x + 3y + z - 4 = 0$

2. ✔ $3x + y + 3 = 0$

3. ✖ $5x + y + 7 = 0$

4. ✖ $4x + 2y + 5z - 7 = 0$

Question Number : 76 Question Id : 8732654909 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

The length of the perpendicular from the point $(7, 14, 5)$ to the plane $2x + 4y - 6 = z$ is

$(7, 14, 5)$ బిందువు నుండి $2x + 4y - 6 = z$ తలమునకు గల లంబం పొడవు

Options :

1. ✖ $\frac{70}{\sqrt{21}}$

2. ✖ $\frac{11}{\sqrt{21}}$

3. ✔ $\frac{59}{\sqrt{21}}$

4. ✖ $3\sqrt{21}$

Question Number : 77 Question Id : 8732654910 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

The projection of the line joining the points $A = (2,3,-1), B = (1,2,3)$ on the line having the direction ratios as $(2,3,-6)$ is

$(2,3,-6)$ లను దిక్ నిష్పత్తులుగా గలిగిన రేఖపై $A = (2,3,-1), B = (1,2,3)$ బిందువులను కలిపే రేఖ యొక్క విక్షేపం.

Options :

1. ✖ $\frac{-2}{7}$

2. ✖ $\frac{-3}{4}$

3. ✔ $\frac{29}{7}$

4. ✖ $\frac{19}{7}$

Question Number : 78 Question Id : 8732654911 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

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

$(2,1,4)$ బిందువు గుండా పోతూ మరియు రేఖ $x-y-2z=5, 3x+y+z=6$ కి సమాంతరంగా గల రేఖ సమీకరణం

Options :

1. ✖ $\frac{x-2}{-1}=\frac{y-1}{7}=\frac{z-4}{4}$

2. ✔ $\frac{x-1}{1}=\frac{y-8}{-7}=\frac{z}{4}$

3. ✖ $\frac{x-2}{1}=\frac{y-1}{7}=\frac{z-4}{-4}$

4. ✖ $\frac{x-1}{-1}=\frac{y-2}{-7}=\frac{z-4}{4}$

Question Number : 79 Question Id : 8732654912 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Correct Marks : 1 Wrong Marks : 0

The equation of the line passing through the points $(1,2,1)$ and $(1,4,3)$ is

$(1,2,1)$ మరియు $(1,4,3)$ బిందువుల గుండా పోయే రేఖ యొక్క సమీకరణము

Options :

1. ✔ $x=1, \quad y-z=1$

2. ✖ $x=1, \quad \frac{y-2}{3}=\frac{z-1}{2}$

3. ✖ $\frac{x-1}{1}=\frac{y-4}{2}=\frac{z-3}{2}$

4. ✖ $\frac{x-1}{1}=\frac{y-2}{2}=\frac{z-3}{2}$

Question Number : 80 Question Id : 8732654913 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

If the two lines $\frac{x-1}{-3}=\frac{y-2}{2k}=\frac{z-3}{2}$ and $\frac{x-1}{3k}=\frac{y-5}{1}=\frac{z-6}{-5}$ are mutually perpendicular then the value of k is

రేఖలు $\frac{x-1}{-3}=\frac{y-2}{2k}=\frac{z-3}{2}$ మరియు $\frac{x-1}{3k}=\frac{y-5}{1}=\frac{z-6}{-5}$ రెండూ పరస్పరం లంబంగా ఉంటే, అప్పుడు k యొక్క విలువ.

Options :

1. ✖ 0

2. ✖ $\frac{10}{7}$

3. ✔ $\frac{-10}{7}$

4. ✖ $\frac{3}{7}$

Question Number : 81 Question Id : 8732654914 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

The equation of the plane containing the line $\frac{x-1}{2}=\frac{y+1}{-1}=\frac{z-3}{4}$ and perpendicular to the plane $x+2y+z=12$ is

$\frac{x-1}{2}=\frac{y+1}{-1}=\frac{z-3}{4}$ రేఖను కలిగి ఉండి మరియు తలము $x+2y+z=12$నకు లంబంగా ఉండే తలము సమీకరణం

Options :

1. $9x-2y-5z+4=0$ ✔

2. $-9x+2y-5z-4=0$ ✖

3. $9x-2y+5z+4=0$ ✖

4. $9x+5y-2z-4=0$ ✖

Question Number : 82 Question Id : 8732654915 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

The equation of the plane bisecting the acute angle between the planes $3x-4y+12z=26$ and $x+2y-2z=9$, is

$3x-4y+12z=26$మరియు $x+2y-2z=9$తలముల మధ్య గల కోణముల యొక్క అల్పకోణాన్ని సమద్వి ఖండన చేసే తలం సమీకరణము.

Options :

1. $4x+38y-62z-39=0$ ✔

2. $22x+14y+10z-195=0$ ✖

$4x+19y-z-41=0$

3. ✖

$10x+13y+10z-47=0$

4. ✖

Question Number : 83 Question Id : 8732654916 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

The shortest distance between the lines $\frac{x-1}{2}=\frac{y-2}{3}=\frac{z-3}{4}$ and $\frac{x-2}{3}=\frac{y-3}{4}=\frac{z+4}{5}$ is

$\frac{x-1}{2}=\frac{y-2}{3}=\frac{z-3}{4}$ మరియు $\frac{x-2}{3}=\frac{y-3}{4}=\frac{z+4}{5}$ రేఖల మధ్యగల అల్పతమ దూరం

Options :

1. ✖ 0

2. ✖ $\frac{12}{\sqrt{6}}$

3. ✖ $\frac{10}{\sqrt{6}}$

4. ✔ $\frac{8}{\sqrt{6}}$

Question Number : 84 Question Id : 8732654917 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

The radius of the circle $x^2+y^2+z^2-2x+4y-6z-2=0,\ z=0$ is (in proper units).

వృత్తము $x^2+y^2+z^2-2x+4y-6z-2=0,\ z=0$ యొక్క వ్యాసార్ధము (తగిన యూనిట్లలో)

Options :

1. ✖ $\sqrt{3}$

2. ✖ $\sqrt{5}$

3. ✔ $\sqrt{7}$

4. ✖ $\sqrt{11}$

Question Number : 85 Question Id : 8732654918 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Correct Marks : 1 Wrong Marks : 0

The equation of the sphere centred at $(2,1,3)$ and radius 6 units is

కేంద్రమును $(2,1,3)$ వద్ద గలిగి, మరియు వ్యాసార్ధము **6** యూనిట్లు గా గలిగిన గోళం సమీకరణం

Options :

1. ✖ $x^2+y^2+z^2-4x+2y-6z+11=0$

2. ✔ $x^2+y^2+z^2-4x-2y-6z=22$

3. ✖ $x^2+y^2+z^2+4x-2y+6z=22$

$x^2+y^2+z^2-4x-2y-6z-11=0$

4. ✖

Question Number : 86 Question Id : 8732654919 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

The equation of the sphere which touches the plane $3x+2y-z+2=0$ at the point (1,-2,1) and passes through the origin is

తలము $3x+2y-z+2=0$ను బిందువు (1,-2,1) వద్ద స్పృశిస్తూ మరియు మూలబిందువు గుండా పోయే గోళం సమీకరణం

Options :

$x^2+y^2+z^2-11x-2y+z=0$

1. ✔

$x^2+y^2+z^2+11x+2y-z=0$

2. ✖

$x^2+y^2+z^2-11x-2y-z=0$

3. ✖

$x^2+y^2+z^2+11x+2y+2z=0$

4. ✖

Question Number : 87 Question Id : 8732654920 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

The equation of the cone which passes through the three coordinate axes and the lines $\frac{x}{1}=\frac{y}{-2}=\frac{z}{3}$ and $\frac{x}{2}=\frac{y}{1}=\frac{z}{1}$ is

మూడు నిరూపక అక్షముల గుండా మరియు రేఖలు $\frac{x}{1}=\frac{y}{-2}=\frac{z}{3}$ మరియు $\frac{x}{2}=\frac{y}{1}=\frac{z}{1}$ గుండా పోయే శంకువు సమీకరణం.

Options :

1. ✖ $2yz+2zx+3xy=0$

2. ✖ $2xy+2yz+3zx=0$

3. ✔ $2yz+2zx-3xy=0$

4. ✖ $2yz-2zx+3xy=0$

Question Number : 88 Question Id : 8732654921 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

The enveloping cone of the sphere $x^2+y^2+z^2+2x-2y=2$ with its vertex $(1,1,1)$ is

శీర్షమును $(1,1,1)$ గా గలిగిన గోళము $x^2+y^2+z^2+2x-2y=2$ యొక్క స్పర్శ శంకువు

Options :

1. ✖ $3x^2+y^2+2zx+10x+2y+4z-6=0$

2. ✖ $x^2+y^2+2zx+5x+3y+4z-5=0$

3. ✖ $x^2+y^2-2zx+5x-3y+6z-10=0$

4. ✔ $3x^2-y^2+4zx-10x+2y-4z+6=0$

Question Number : 89 Question Id : 8732654922 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

The vertex of the cone $x^2-2y^2+3z^2-4xy+5yz-6zx+8x-19y-2z-20=0$ is

శంకువు $x^2-2y^2+3z^2-4xy+5yz-6zx+8x-19y-2z-20=0$ యొక్క శీర్షము

Options :

1. ✖ $(1,2,3)$

2. ✔ $(1,-2,3)$

3. ✖ $(-1,-2,3)$

4. ✖ $(-1,-2,-3)$

Question Number : 90 Question Id : 8732654923 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

If the plane $2x-y+cz=0$ cuts the cone $yz+zx+xy=0$ in perpendicular lines, then the value of c is

$2x-y+cz=0$ తలము, శంకువు $yz+zx+xy=0$ ను లంబ రేఖలలో ఖండిస్తుంటే, అప్పుడు c యొక్క విలువ

Options :

1. ✖ 1

2. ✔ 2

3. ✖ 3

4. ✖ 4

Question Number : 91 Question Id : 8732654924 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

In group $G=\left(\left\{\bar{0},\bar{1},\bar{2},.....,\bar{10}\right\}, \quad +_{10}\right)$, the order of $\bar{8}$ is

$G=\left(\left\{\bar{0},\bar{1},\bar{2},.....,\bar{10}\right\}, \quad +_{10}\right)$ సమూహములో, $\bar{8}$ యొక్క తరగతి.

Options :

1. ✖ 10

2. ✖ 8

3. ✖ 7

4. ✔ 5

Question Number : 92 Question Id : 8732654925 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

If $n(A) = 4$, then the number of commutative binary operations that can be defined on A is

$n(A) = 4$ అయితే, A పై నిర్వచించగలిగే వినిమయ యుగ్మ పరిక్రియల సంఖ్య

Options :

1. ✖ 4^{16}

2. ✔ 4^{10}

3. ✖ 4^{6}

4. ✖ 4^{4}

Question Number : 93 Question Id : 8732654926 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

If a group G has 100 elements, then the number of subgroups of G having 8 elements is

సమూహం G 100 మూలకాలను కలిగి ఉంటే 8 మూలకాలు గలగిన G యొక్క ఉప సమూహాల సంఖ్య.

Options :

1. ✖ 8

2. ✖ 4

3. ✖ 2

4. ✔ 0

Question Number : 94 Question Id : 8732654927 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

If $G=\{1,-1,\ i,\ -i\}$ is a group under multiplication, then the number of subgroups of G is

గుణనం పరంగా $G=\{1,-1,\ i,\ -i\}$ ఒక సమూహమైతే అప్పుడు G యొక్క ఉపసమూహాల సంఖ్య

Options :

1. ✖ 1

2. ✖ 2

3. ✔ 3

4

4. ✖

Question Number : 95 Question Id : 8732654928 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Correct Marks : 1 Wrong Marks : 0

If $\phi: Z_{12} \to Z_{12}$ is a homomorphism defined on the group $(\mathbb{Z}_{12}, +_{12})$ given by $\phi(x) = 3x$, then ker ϕ is

$(\mathbb{Z}_{12}, +_{12})$ సమూహముపై ఒక సమరూపత $\phi: Z_{12} \to Z_{12}$ అనునది $\phi(x) = 3x$ గా నిర్వచించబడితే, అప్పుడు ker ϕ =

Options :

1. ✖ $\{\bar{0}, \bar{2}, \bar{4}\}$

2. ✔ $\{\bar{0}, \bar{4}, \bar{8}\}$

3. ✖ $\{\bar{0}, \bar{4}, \bar{6}\}$

4. ✖ $\{\bar{0}, \bar{8}\}$

Question Number : 96 Question Id : 8732654929 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Correct Marks : 1 Wrong Marks : 0

If $O(G) = 12$ and H is a sub group of G such that $O(H) = 4$, then the number of right cosets of H in G is

$O(G) = 12$ మరియు $O(H) = 4$ అయ్యేటట్లు G లో H ఒక ఉపసమూహం అయితే, G లో వుండే H యొక్క కుడి సహసమితుల సంఖ్య

Options :

1. ✖ 8

2. ✖ 5

3. ✔ 3

4. ✖ 6

Question Number : 97 Question Id : 8732654930 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

The order of i in the multiplicative group $\{1, -1, i, -i\}$ is

గుణనాత్మక సమూహము $\{1, -1, i, -i\}$ లోని i యొక్క తరగతి

Options :

1. ✖ 3

2. ✔ 4

3. ✖ 0

4. ✖ 1

Question Number : 98 Question Id : 8732654931 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

Number of subgroups of the group $(\mathbb{Z}_{48}, +_{48})$ is

$(\mathbb{Z}_{48}, +_{48})$ సమూహము యొక్క ఉపసమూహాల సంఖ్య

Options :

1. ✖ 7

2. ✖ 8

3. ✖ 9

4. ✔ 10

Question Number : 99 Question Id : 8732654932 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

The generators of the cyclic group $G=\left(\{\bar{0},\bar{1},\bar{2},\bar{3},\bar{4},\bar{5},\},\quad +_6\right)$ are

చక్రీయ సమూహము $G=\left(\{\bar{0},\bar{1},\bar{2},\bar{3},\bar{4},\bar{5},\},\quad +_6\right)$ యొక్క జనక మూలకాలు

Options :

1. ✖ $\bar{0},\bar{5}$

2. ✔ $\bar{1},\bar{5}$

3. ✖ $\bar{2},\bar{4}$

4. ✖ $\bar{1},\bar{3}$

Question Number : 100 Question Id : 8732654933 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

The number of generators of an infinite cyclic group is

ఒక అపరిమిత చక్రీయ సమూహము యొక్క జనక మూలకాల సంఖ్య

Options :

1. ✖ 0

2. ✖ 1

3. ✔ 2

4. ✖ Infinite (అనంతం)

Question Number : 101 Question Id : 8732654934 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Correct Marks : 1 Wrong Marks : 0

Order of the permutation (5 6 7 8 9)o(7 9 6 8 5) in the group (S_9, o)

(S_9, o) సమూహములో (5 6 7 8 9)o(7 9 6 8 5) ప్రస్తారము యొక్క తరగతి

Options :

1. ✖ 2

2. ✖ 3

3. ✖ 4

4. ✔ 5

Question Number : 102 Question Id : 8732654935 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Correct Marks : 1 Wrong Marks : 0

If $a=\begin{pmatrix}1&2&3&4&5&6&7&8&9\\3&4&5&6&1&9&8&7&2\end{pmatrix}$ is a permutation in the group (S_9, o), then $0(a^2)$ is

సమూహం (S_9, o) లో $a=\begin{pmatrix}1&2&3&4&5&6&7&8&9\\3&4&5&6&1&9&8&7&2\end{pmatrix}$

ఒక ప్రస్తారము అయితే, అప్పుడు $0(a^2)$ =

Options :

1. ✖ 12

2. ✖ 8

3. ✔ 6

4. ✖ 4

Question Number : 103 Question Id : 8732654936 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

The order of the cycle (1 4 5 7) in the permutation group (S_7, o) is

ప్రస్తార సమూహం (S_7, o) లో ఆవృత్తి (1 4 5 7) యొక్క తరగతి.

Options :

1. ✖ 3

2. ✔ 4

3. ✖ 5

4. ✖ 6

Question Number : 104 Question Id : 8732654937 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

The number of invertible elements in the ring of integers is

పూర్ణాంకాల వలయంలోని విలోమనీయ మూలకాల సంఖ్య

Options :

1. ✖ 0

2. ✖ 1

3. ✔ 2

4. ✖ 3

Question Number : 105 Question Id : 8732654938 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Correct Marks : 1 Wrong Marks : 0

The product of (4 5) (1 2 3) (3 2 1) (5 4) (2 6) (1 4) in the group S_6 expressed as the product of disjoint cycles is

సమూహం S_6 లో (4 5) (1 2 3) (3 2 1) (5 4) (2 6) (1 4) యొక్క లబ్ధమును వియుక్త ఆవృత్తిల లబ్ధముగా వ్యక్తపరచగా వచ్చే ఫలితం.

Options :

1. ✖ (1 6) (2 4)

2. ✖ (1 2) (4 6)

3. ✔ (1 4) (2 6)

4. ✖ (1 4 2 6)

Question Number : 106 Question Id : 8732654939 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Correct Marks : 1 Wrong Marks : 0

The number of non-zero zero-divisors in the ring $(Z_{12}, +_{12}, X_{12})$ is

$(Z_{12}, +_{12}, X_{12})$ వలయంలోని శూన్యేతర శూన్య భాజకాల సంఖ్య

Options :

1. ✖ 4

2. ✖ 5

3. ✖ 6

4. ✔ 7

Question Number : 107 Question Id : 8732654940 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

The units of the ring $(Z_6, +_6, X_6)$ are

$(Z_6, +_6, X_6)$ వలయంలోని యూనిట్లు

Options :

1. ✖ 2, 3

2. ✖ 2, 4

3. ✔ 1, 5

4. ✖ 4, 3

Question Number : 108 Question Id : 8732654941 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

The set of generators of the cyclic group $(Z_8, +_8)$, where $\mathbb{Z}_8 = \{0,1,2,3,4,5,6,7\}$ and $+_8$ is the addition modulo 8, is

$\mathbb{Z}_8 = \{0,1,2,3,4,5,6,7\}$ మరియు $+_8$ అనేది 8 మాప సంకలనం అయితే, చక్రీయ సమూహం $(Z_8, +_8)$ యొక్క జనక మూలకాల సమితి.

Options :

1. ✖ $\{1,2,3,4\}$

2. ✖ $\{1,3,6,7\}$

3. ✖ $\{2,4,5,6\}$

4. ✔ $\{1,3,5,7\}$

Question Number : 109 Question Id : 8732654942 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Correct Marks : 1 Wrong Marks : 0

If a cyclic group G is generated by an element α of order 15, then which one of the following statements is true?

ఒక చక్రీయ సమూహం G , తరగతి 15 గలిగిన ఒక మూలకం α చే ఉత్పాదితమైతే, అప్పుడు క్రింది ప్రవచనాలలో ఏది సత్యము?

Options :

1. ✔ α^2 is a generator of G
G యొక్క ఒక జనక మూలకం α^2

2. ✖ α^3 is a generator of G
G యొక్క ఒక జనక మూలకం α^3

3. ✖ α^5 is a generator of G
G యొక్క ఒక జనక మూలకం α^5

4. ✖ α^{15} is a generator of G
G యొక్క ఒక జనక మూలకం α^{15}

Question Number : 110 Question Id : 8732654943 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Correct Marks : 1 Wrong Marks : 0

The number of ideals in the field F is

F క్షేత్రంలోని ఆదర్శముల (ఐడియల్స్) సంఖ్య

Options :

1. ✖ 0

2. ✖ 1

3. ✔ 2

4. ✖ 3

Question Number : 111 Question Id : 8732654944 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

The limit of the sequence $\{S_n\}$ as $n \to \infty$ where $s_n = \sqrt{n^2+n} - n$, is

$s_n = \sqrt{n^2+n} - n$ అయినప్పుడు, $n \to \infty$ కి అనుక్రమం $\{S_n\}$ యొక్క అవధి

Options :

1. ✖ 0

2. ✖ 1

3. ✖ 2

4. ✔ $\frac{1}{2}$

Question Number : 112 Question Id : 8732654945 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

The Cauchy's sequence among the following sequences, is

ఈ దిగువన ఇచ్చిన అనుక్రమాలలో, కౌషీ అనుక్రమం

Options :

1. ✖ $\left\{1+\frac{1}{2}+\frac{1}{3}+.....+\frac{1}{n}\right\}$

2. ✔ $\left\{1+\frac{1}{2!}+\frac{1}{3!}+.....+\frac{1}{n!}\right\}$

3. ✖ $\{n\}$

4. ✖ $\left\{n+\frac{1}{n}\right\}$

Question Number : 113 Question Id : 8732654946 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Correct Marks : 1 Wrong Marks : 0

Which one of the following statements is not true in $\mathbb{R}$?

ఈ క్రింది ప్రవచనాలలో ఏది $\mathbb{R}$ లో సత్యము కాదు?

Options :

1. ✔ Bounded sequences are convergent
పరిబద్ధ అనుక్రమాలు అభిసరణ చెందుతాయి.

2. ✖ Increasing sequences bounded above are convergent
ఎగువబద్ధ ఆరోహణ అనుక్రమాలు అభిసరణ చెందుతాయి.

3. ✖ Decreasing sequences bounded below are convergent
దిగువ బద్ధ అవరోహణ అనుక్రమాలు అభిసరణ చెందుతాయి

4. ✖ Convergent sequences are bounded
అభిసరణ చెందే అనుక్రమాలు పరిబద్ధమవుతాయి.

Question Number : 114 Question Id : 8732654947 Question Type : MCQ Option Shuffling : No Display
Question Number : Yes
Correct Marks : 1 Wrong Marks : 0

If $s_n = \sum_{k=1}^{n} \frac{1}{k}$, then the sequence $\{s_n\}$ is

$s_n = \sum_{k=1}^{n} \frac{1}{k}$ అయితే, అప్పుడు అనుక్రమం $\{s_n\}$

Options :

1. ✖ Convergent
అభిసరణం చెందుతుంది

2. ✖ Bounded
పరిబద్ధం

3. ✔ Increasing
ఆరోహణం

4. ✖ Decreasing
అవరోహణం

Question Number : 115 Question Id : 8732654948 Question Type : MCQ Option Shuffling : No Display
Question Number : Yes
Correct Marks : 1 Wrong Marks : 0

If $t_n = (-1)^n + 1$ for all $n \geq 1$, then

అన్ని $n \geq 1$ లకు $t_n = (-1)^n + 1$ అయితే, అప్పుడు

Options :

1. ✖ $\lim_{n \to \infty} t_n$ exists
$\lim_{n \to \infty} t_n$ వ్యవస్థితం

2. ✔ $\limsup t_n = 2$ and $\liminf t_n = 0$

$\limsup t_n = 2$ మరియు $\liminf t_n = 0$

3. ✖ $\limsup t_n = 2$ and $\liminf t_n = -1$

$\limsup t_n = 2$ మరియు $\liminf t_n = -1$

4. ✖ $\limsup t_n$ and $\liminf t_n$ do not exist

$\limsup t_n$ మరియు $\liminf t_n$ వ్యవస్థితం కావు

Question Number : 116 Question Id : 8732654949 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Correct Marks : 1 Wrong Marks : 0

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

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

Options :

1. ✖ Convergent to zero

సున్నాకు అభిసరణం చెందుతుంది.

2. ✖ Divergent

అపసరణం చెందుతుంది

3. ✖ Absolutely convergent

సంపూర్ణాభిసరణ చెందుతుంది

4. ✔ Convergent but not absolutely

అభిసరణం చెందుతుంది, కాని సంపూర్ణాభిసరణ చెందదు

Question Number : 117 Question Id : 8732654950 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

If $f:\mathbb{R}\to\mathbb{R}$ is defined by $f(x)=|x|$ for all $x\in\mathbb{R}$, then

అన్ని $x\in\mathbb{R}$ లకు $f(x)=|x|$ గా $f:\mathbb{R}\to\mathbb{R}$ నిర్వచింపబడితే అప్పుడు

Options :

1. ✔ f is continuous on $\mathbb{R}$

   $\mathbb{R}$ పై అవిచ్ఛిన్నం

2. ✖ f is not continuous at '0'

   0 వద్ద f అవిచ్ఛిన్నం కాదు

3. ✖ f is continuous at '0' only

   0 వద్ద మాత్రమే f అవిచ్ఛిన్నం

4. ✖ f is not continuous at any x in $\mathbb{R}$

   $\mathbb{R}$ లో ఏ x వద్ద f అవిచ్ఛిన్నం కాదు

Question Number : 118 Question Id : 8732654951 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

$$\lim_{n\to\infty} n^{\frac{1}{n}} =$$

Options :

1. ✖ 0

2. ✖ ∞

3. ✔ 1

does not exist

వ్యవస్థితం కాదు

4. ✖

Question Number : 119 Question Id : 8732654952 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

The function f defined by $f(x) = x$, if $x \in \mathbb{R} - \mathbb{Q}$,
$= 1 - x$, if $x \in \mathbb{Q}$ is continuous

$f(x) = x$, if $x \in \mathbb{R} - \mathbb{Q}$, అయితే

$= 1 - x$, if $x \in \mathbb{Q}$ అయితే

గా నిర్వచింపబడిన ప్రమేయం అవిచ్ఛిన్నం అయ్యేది.

Options :

at $x = 1$ only

$x = 1$ వద్ద మాత్రమే

1. ✖

at $x = \frac{1}{2}$ only

$x = \frac{1}{2}$ వద్ద మాత్రమే

2. ✔

at all rational numbers x

అన్ని అకరణీయ సంఖ్యలు x వద్ద

3. ✖

$\mathbb{R} - \{0, 1\}$

4. ✖

Question Number : 120 Question Id : 8732654953 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

If $f(x) = [x]$ for $x \in [0,10]$, then f is

$x \in [0,10]$ కి, $f(x) = [x]$ అయితే, అప్పుడు f

Options :

1. ✖ Continuous on $[0,10]$
$[0,10]$ పై అవిచ్ఛిన్నం

2. ✖ Differentiable on $[0,10]$
$[0,10]$ పై అవకలనీయం

3. ✔ Integrable on $[0,10]$
$[0,10]$ పై సమాకలనీయం

4. ✖ Strictly increasing on $[0,10]$
$[0,10]$ పై శుద్ధారోహణం

Question Number : 121 Question Id : 8732654954 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

If f is continuous on $[0,1]$ and differentiable on $(0,1)$ and $|f(x)-f(y)| \le (x-y)^2$ for all x, y in $[0,1]$, then

$[0,1]$ పై f అవిచ్ఛిన్నం మరియు $(0,1)$ పై f అవకలనీయం అవుతూ

మరియు $[0,1]$ లోని అన్ని x, y లకు $|f(x)-f(y)| \le (x-y)^2$ అయితే, అప్పుడు

Options :

1. ✖ f is increasing
f ఆరోహణం

2. ✔ f is a constant function
f ఒక స్థిర ప్రమేయం

3. ✖ f is decreasing
f అవరోహణం

f is unbounded

f అపరిబద్ధం

4. ✖

Question Number : 122 Question Id : 8732654955 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

The Taylor series expansion of e^x, for $x \in \mathbb{R}$ is

$x \in \mathbb{R}$ కి, e^x యొక్క టేలర్ శ్రేణులు విస్తరణ

Options :

1. ✖ $\sum_{n=0}^{\infty} \frac{(-1)^n x^n}{n!}$

2. ✖ $\sum_{n=0}^{\infty} \frac{(-1)^n x^n}{(2n)!}$

3. ✔ $\sum_{n=0}^{\infty} \frac{x^n}{n!}$

4. ✖ $\sum_{n=0}^{\infty} \frac{(-1)^n x^{2n+1}}{(2n+1)!}$

Question Number : 123 Question Id : 8732654956 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

The constant C of the Lagrange's mean value theorem for the function $f(x) = x + x^2$ on $[0, 6]$ is

$[0, 6]$ పై $f(x) = x + x^2$ ప్రమేయానికి, లెగ్రాంజ్ మధ్యమ విలువ సిద్ధాంతం యొక్క స్థిరరాశి C =

Options :

1. ✔ 3

2. ✖ 6

3. ✖ 5

4. ✖ $\frac{7}{2}$

Question Number : 124 Question Id : 8732654957 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

Let $p=\{a=x_0\le x_1\le .....\le x_n=b\}$ be a partition of the interval $[a,b]$. Then the norm of p is

$[a,b]$ అంతరం యొక్క ఒక విభజనను $p=\{a=x_0\le x_1\le .....\le x_n=b\}$ అనుకోండి. అప్పుడు p యొక్క విభజన ప్రమాణం

Options :

1. ✖ $\max_{\text{గరిష్ఠ}}\{|x_i-x_j|/1\le i,j\le n\}$

2. ✖ $\max_{\text{గరిష్ఠ}}\{|x_i-x_j|/1\le i,j\le n, i\ne j\}$

3. ✖ $\max_{\text{గరిష్ఠ}}\{|x_i-x_{i+1}|/1\le i\le n-1\}$

4. ✔ $\max_{\text{గరిష్ఠ}}\{|x_i-x_{i+1}|/0\le i\le n-1\}$

Question Number : 125 Question Id : 8732654958 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

If $f:[a,b]\to\mathbb{R}$ be such that $|f|$ is Riemann integrable on $[a,b]$, then

$[a,b]$ పై $|f|$ రీమాన్ సమాకలనీయం అయ్యేటట్లుగా $f:[a,b]\to\mathbb{R}$ ఉంటే, అప్పుడు

Options :

1. ✖ f is Riemann integrable on $[a,b]$
$[a,b]$ పై f రీమాన్ సమాకలనీయం

2. ✖ f is continuous on $[a,b]$
$[a,b]$ పై f అవిచ్ఛిన్నం

3. ✖ f is differentiable on $[a,b]$
$[a,b]$ పై f అవకలనీయం

4. ✔ f is bounded on $[a,b]$
$[a,b]$ పై f పరిబద్ధం

Question Number : 126 Question Id : 8732654959 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Correct Marks : 1 Wrong Marks : 0

$$\int_0^4 [x]\,dx =$$

Options :

1. ✖ 0

2. ✖ 3

3. ✖ 4

4. ✔ 6

Question Number : 127 Question Id : 8732654960 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

$$\lim_{n\to\infty}\sum_{r=1}^{n}\frac{n}{n^2+r^2}$$

Options :

1. ✖ 2π

2. ✖ π

3. ✖ $\frac{\pi}{2}$

4. ✔ $\frac{\pi}{4}$

Question Number : 128 Question Id : 8732654961 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

If $f:[0,1]\to\mathbb{R}$ is defined 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 not true?

$$f(x)=\begin{cases}1, x \text{ అకరణీయ సంఖ్య అయితే}\\ -1, x \text{ కరణీయ సంఖ్య అయితే}\end{cases}$$

గా $f:[0,1]\to\mathbb{R}$ నిర్వచించబడితె, అప్పుడు ఈ క్రింది వానిలో ఏది సత్యం కాదు?

Options :

1. ✖ f is not continuous

f అవిచ్ఛిన్నం కాదు

2. ✖ f is bounded
f పరిబద్ధం

3. ✖ $|f|$ is a constant function
$|f|$ ఒక స్థిర ప్రమేయం

4. ✔ f is Riemann integrable
f రీమాన్ సమాకలనీయం

Question Number : 129 Question Id : 8732654962 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Correct Marks : 1 Wrong Marks : 0

The value C of Cauchy's mean value theorem for $f(x)=\frac{1}{x^2}$ and $g(x)=\frac{1}{x}$ on $[a,b], a,b>0$ is

$[a,b]$ పై $f(x)=\frac{1}{x^2}$ మరియు $g(x)=\frac{1}{x}, a,b>0$ కి కౌషీ మధ్యమ విలువ సిద్ధాంతం యొక్క C విలువ

Options :

1. ✖ $\frac{ab}{2(a+b)}$

2. ✖ $\frac{2ab}{b-a}$

3. ✔ $\frac{2ab}{a+b}$

4. ✖ $\frac{a+b}{2ab}$

Question Number : 130 Question Id : 8732654963 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

If $f(x)=x^2$ on $[0,1]$ and partition $p=\left\{0, \frac{1}{4}, \frac{2}{4}, \frac{3}{4}, 1\right\}$, then $U(p,f)-L(p,f)=$

$[0,1]$ పై $f(x)=x^2$ మరియు విభజన $p=\left\{0, \frac{1}{4}, \frac{2}{4}, \frac{3}{4}, 1\right\}$ అయితే, అప్పుడు $U(p,f)-L(p,f)=$

Options :

1. ✖ $\frac{5}{32}$

2. ✖ $\frac{6}{32}$

3. ✔ $\frac{8}{32}$

4. ✖ $\frac{9}{32}$

Question Number : 131 Question Id : 8732654964 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

If $\alpha=(1,-2,5)$ is a vector in the vectospace $\mathbb{R}^3(\mathbb{R})$ that can be expressed as a linear combination of the vectors $e_1=(1,1,1)$, $e_2=(1,2,3)$, and $e_3=(2,-1,1)$, then $\alpha=$

సదిశాంతరాళం $\mathbb{R}^3(\mathbb{R})$లో సదిశ $\alpha=(1,-2,5)$ను $e_1=(1,1,1)$, $e_2=(1,2,3)$ మరియు $e_3=(2,-1,1)$ సదిశల ఏకఘాత (రుజు) సంయోగంగా వ్యక్తపరిస్తే, అప్పుడు $\alpha=$

Options :

1. ✔ $-6e_1+3e_2+2e_3$

2. ✖ $6e_1 + 3e_2 - 2e_3$

3. ✖ $-6e_1 - 3e_2 + 2e_3$

4. ✖ $6e_1 - 3e_2 - 2e_3$

Question Number : 132 Question Id : 8732654965 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

If the set $\{(1+a,1,1),(1,1+a,1),(1,1,1+a)\}$, is a basis for $V_3(\mathbb{R})$ then

సమితి $\{(1+a,1,1),(1,1+a,1),(1,1,1+a)\}$, $V_3(\mathbb{R})$ కి ఒక ఆధారము అయితే,

అప్పుడు

Options :

1. ✖ $a \in \mathbb{R} \setminus \{0,1\}$

2. ✖ $a \in \mathbb{R} \setminus \{0,3\}$

3. ✖ $a \in \mathbb{R} \setminus \{0,-1\}$

4. ✔ $a \in \mathbb{R} \setminus \{0,-3\}$

Question Number : 133 Question Id : 8732654966 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

If $W_1 = \{(a,b,c,d) | b - 2c + d = 0\}$ and $W_2 = \{(a,b,c,d) | a = d, b = 2c\}$ are two subspaces of the vector space $(\mathbb{R}^4, +, \cdot)$, then $\dim(W_1 + W_2) =$

$W_1 = \{(a,b,c,d) | b - 2c + d = 0\}$ మరియు $W_2 = \{(a,b,c,d) | a = d, b = 2c\}$ లు సదిశాంతరాళం $(\mathbb{R}^4, +, \cdot)$, లోని రెండు ఉప అంతరాళాలు అయితే, అప్పుడు $\dim(W_1 + W_2) =$

Options :

1. ✔ 4

2. ✖ 3

3. ✖ 2

4. ✖ 1

Question Number : 134 Question Id : 8732654967 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

If $T: R^3 \to R^3$ is linear transformation defined by $T(x,y,z) = (x\cos\theta - y\sin\theta,\ x\sin\theta + y\cos\theta,\ z)$, then $\dim(KerT) =$

ఒక ఏకఘాత రూపాంతరణము $T: R^3 \to R^3$ ను $T(x,y,z) = (x\cos\theta - y\sin\theta,\ x\sin\theta + y\cos\theta,\ z)$ గా నిర్వచిస్తే, అప్పుడు $\dim(KerT) =$

Options :

1. ✖ 2

2. ✖ 3

3. ✔ 0

4. ✖ 1

Question Number : 135 Question Id : 8732654968 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

If V and W are finite dimensional vector spaces and $T: V \to W$ is a surjective but not injective linear transformation, then

V మరియు W లు పరిమిత పరిమాణ సదిశాంతరాళాలు అవుతూ మరియు $T: V \to W$ ఒక సంగ్రస్తం అవుతూ, అన్వేకము కానట్టి ఏకఘాత రూపాంతరణము అయితే అప్పుడు

Options :

1. ✖ $\dim V = 0$

2. ✖ $\dim W = 1$

3. ✖ $\dim V < \dim W$

4. ✔ $\dim V > \dim W$

Question Number : 136 Question Id : 8732654969 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

If T_1 and T_2 are linear operators on $\mathbb{R}^2$ and defined by $T_1(x, y) = (y, -x)$, $T_2(x, y) = (y, 0)$ for all $(x, y) \in \mathbb{R}^2$, then $(T_1T_2 - T_2T_1)(x, y) =$

T_1 మరియు T_2 లు ప్రతి $(x, y) \in \mathbb{R}^2$ కి, $T_1(x, y) = (y, -x)$, $T_2(x, y) = (y, 0)$ గా $\mathbb{R}^2$ పై నిర్వచింపబడిన ఏకఘాత పరికర్తలు అయితే అప్పుడు $(T_1T_2 - T_2T_1)(x, y) =$

Options :

1. ✖ (x, y)

2. ✖ $(-x, y)$

3. ✔ $(x,-y)$

4. ✖ $(-x,-y)$

Question Number : 137 Question Id : 8732654970 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

$T:R^3\to R^2$ is a linear transformation defined by $T(x_1,x_2,x_3)=(x_1-x_2,\ x_1+x_3)$ for all $(x_1,x_2,x_3)\in\mathbb{R}^3$, then nullity (T) is

ఒక ఏకఘాత రూపాంతరణము $T:R^3\to R^2$ ప్రతి $(x_1,x_2,x_3)\in\mathbb{R}^3$ కి $T(x_1,x_2,x_3)=(x_1-x_2,\ x_1+x_3)$ గా నిర్వచింపబడితే అప్పుడు శూన్యత్వం (T) =

Options :

1. ✖ 0

2. ✔ 1

3. ✖ 2

4. ✖ 6

Question Number : 138 Question Id : 8732654971 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

If $T:R^3\to R^2$ is a linear transformation defined by $T(1,0,0)=(2,1)$, $T(0,1,0)=(0,1)$ and $T(0,0,1)=(1,1)$, then the rank of T is

$T(1,0,0)=(2,1)$, $T(0,1,0)=(0,1)$ మరియు $T(0,0,1)=(1,1)$ గా ఒక ఏకఘాత రూపాంతరణము $T:R^3\to R^2$ నిర్వచితమైతే, T యొక్క కోటి

Options :

1. ✖ 0

2. ✖ 1

3. ✔ 2

4. ✖ 3

Question Number : 139 Question Id : 8732654972 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

The rank of $T:R^2 \to R^3$ defined by $T(x,y)=(x+y,\ x-y,\ y)$ is

$T(x,y)=(x+y,\ x-y,\ y)$ గా $T:R^2 \to R^3$ నిర్వచింపబడితే, అప్పుడు T యొక్క కోటి

Options :

1. ✖ 3

2. ✖ 0

3. ✔ 2

4. ✖ 1

Question Number : 140 Question Id : 8732654973 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

The characteristic equation of the matrix $\begin{bmatrix} 2 & 1 & 0 \\ 0 & 2 & 1 \\ 0 & 0 & 2 \end{bmatrix}$ is

$\begin{bmatrix} 2 & 1 & 0 \\ 0 & 2 & 1 \\ 0 & 0 & 2 \end{bmatrix}$ మాత్రిక యొక్క లాక్షణిక సమీకరణము

Options :

1. ✖ $2-\lambda=0$

2. ✖ $(2-\lambda)^2=0$

3. ✔ $(2-\lambda)^3=0$

4. ✖ $(2-\lambda)=4$

Question Number : 141 Question Id : 8732654974 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

The characteristic roots of the matrix $\begin{bmatrix}1 & 4\\3 & 2\end{bmatrix}$ are

$\begin{bmatrix}1 & 4\\3 & 2\end{bmatrix}$ మాత్రిక యొక్క లాక్షణిక మూలాలు

Options :

1. ✖ 2, -5

2. ✔ -2, 5

3. ✖ 3, 2

4. ✖ 3, -5

Question Number : 142 Question Id : 8732654975 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

Let T be a linear operator on R^2 defined by $T(x,y)=(4x-2y,\ 2x+y)$ for all $(x,y)\in\mathbb{R}^2$. Then the matrix of T relative to the basis $\{(1,1),(-1,0)\}$ is

R^2 లో T ఋజు పరికర్తను ప్రతి $(x,y)\in\mathbb{R}^2$కి $T(x,y)=(4x-2y,\ 2x+y)$గా నిర్వచిస్తే, $\{(1,1),(-1,0)\}$ ఆధారము దృష్ట్యా T యొక్క మాత్రిక

Options :

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

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

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

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

Question Number : 143 Question Id : 8732654976 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

Nullity of the matrix $\begin{bmatrix}1 & 2 & 1\\ 0 & 1 & 0\\ 0 & -1 & 1\end{bmatrix}$ is

$\begin{bmatrix}1 & 2 & 1\\ 0 & 1 & 0\\ 0 & -1 & 1\end{bmatrix}$ మాత్రిక యొక్క శూన్యత

Options :

1. ✖ -1

2. ✖ 1

3. ✔ 0

4. ✖ 2

Question Number : 144 Question Id : 8732654977 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

If $A=\begin{bmatrix} 2 & -5 & 7 \\ -5 & 11 & -8 \\ 8 & 7 & 6 \end{bmatrix}$ is a matrix, then trace of A is

$A=\begin{bmatrix} 2 & -5 & 7 \\ -5 & 11 & -8 \\ 8 & 7 & 6 \end{bmatrix}$ ఒక మాత్రిక అయితే, అప్పుడు A యొక్క జాడ

Options :

1. ✔ 19

2. ✖ 17

3. ✖ 5

4. ✖ -5

Question Number : 145 Question Id : 8732654978 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

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

మాత్రిక $A=\begin{bmatrix}1 & 1 & 1\\ 2 & 5 & -2\\ 1 & 7 & -7\end{bmatrix}$ యొక్క కోటి

Options :

1. ✖ 0

2. ✖ 1

3. ✔ 2

4. ✖ 3

Question Number : 146 Question Id : 8732654979 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Correct Marks : 1 Wrong Marks : 0

If $\alpha = (2,1,2)$ in an inner product space $V_3(R)$, then $\|\alpha\| =$

$V_3(R)$అంతర్లబ్ధ అంతరాళము లో, $\alpha = (2,1,2)$ అయితే అప్పుడు $\|\alpha\| =$

Options :

1. ✖ 0

2. ✖ 1

3. ✖ 2

4. ✔ 3

Question Number : 147 Question Id : 8732654980 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

A unit vector orthogonal to $(2,-1,6)$ in an inner product space $\mathbb{R}^3$ is

అంతర్లబ్ధ అంతరాళము $\mathbb{R}^3$ లో $(2,-1,6)$ కు లంబకోణీయంగా ఉండే ఒక యూనిట్ సదిశ

Options :

1. ✖ $\left(\frac{2}{3}, \frac{-1}{3}, \frac{-2}{3}\right)$

2. ✔ $\left(\frac{2}{3}, \frac{-2}{3}, \frac{-1}{3}\right)$

3. ✖ $\left(\frac{2}{3}, \frac{1}{3}, \frac{2}{3}\right)$

4. ✖ $\left(\frac{-2}{3}, \frac{2}{3}, \frac{-1}{3}\right)$

Question Number : 148 Question Id : 8732654981 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

If $\alpha = (-1,0,1)$ and $\beta = (2,0,-2)$ are elements in the inner product space $V_3(R)$, then $\|\alpha + \beta\| =$

$\alpha = (-1,0,1)$ మరియు $\beta = (2,0,-2)$ లు అంతర్లబ్ధ అంతరాళము $V_3(R)$లో ని మూలకాలైతే, అప్పుడు $\|\alpha + \beta\| =$

Options :

1. ✖ 1

2. ✖ 2

3. ✔ $\sqrt{2}$

4. ✖ $\sqrt[3]{2}$

Question Number : 149 Question Id : 8732654982 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

If α, β are vectors in a real inner product space and $\|\alpha\| = \|\beta\|$, then $(\alpha - \beta, \alpha + \beta) =$

వాస్తవ అంతర్లబ్ధ అంతరాళములో α, β లు సదిశలు మరియు $\|\alpha\| = \|\beta\|$ అయితే,

అప్పుడు $(\alpha - \beta, \alpha + \beta) =$

Options :

1. ✖ $\alpha - \beta$

2. ✖ $\alpha + \beta$

3. ✖ 1

4. ✔ 0

Question Number : 150 Question Id : 8732654983 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 1 Wrong Marks : 0

If W is a subspace of a finite dimensional inner product space V, then $\dim W^{\perp} =$

ఒక పరిమిత పరిమాణ అంతర్లబ్ధ అంతరాళము V యొక్క ఒక ఉపాంతరాళము W అయితే,

అప్పుడు $\dim W^{\perp} =$

Options :

1. ✖ V-W

2. ✔ dimV - dimW

3. ✖ dimV + dimW

4. ✖ dimV . dimW