

Commissionerate of School Education-Government
of Andhra Pradesh

- Notations :**
- Options shown in green color and with  icon are correct.
 - Options shown in red color and with  icon are incorrect.

Question Paper Name :	PGT NL Maths 8th June 2025 Shift 2
Subject Name :	PGT NL Maths
Creation Date :	2025-06-08 18:31:18
Duration :	180
Total Marks :	100
Display Marks:	No
Change Font Color :	No
Change Background Color :	No
Change Theme :	No
Help Button :	No
Show Reports :	No
Show Progress Bar :	No

PGT NL Maths

Group Number :	1
Group Id :	39226617
Group Maximum Duration :	0
Group Minimum Duration :	180
Show Attended Group? :	No
Edit Attended Group? :	No
Break time :	0
Group Marks :	100

Section 1

Section Id :	39226690
Section Number :	1
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	20
Number of Questions to be attempted :	20
Section Marks :	10
Maximum Instruction Time :	0
Sub-Section Number :	1
Sub-Section Id :	39226690

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Question Shuffling Allowed :

Yes

Question Number : 1 Question Id : 3922662561 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The speed of messages send by our brain is appropriately about

1. 375 kmh^{-1}
2. 375 ms^{-1}
3. 375 kms^{-1}
4. 375 mh^{-1}

Options :

1. ✓ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

Question Number : 2 Question Id : 3922662562 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The first space shuttle to revolve around the Earth is

1. Sputnik
2. Apollo
3. Columbia
4. Space X

Options :

1. ✗ 1
2. ✗ 2
3. ✓ 3
4. ✗ 4

Question Number : 3 Question Id : 3922662563 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Choose correct matching

- | | |
|-----------------------------|-----------------------|
| i. Chipko Movement | a. Vandana Siva |
| ii. Navadhanya Movement | b. Medha Patkar |
| iii. Silent Valley Movement | c. Sunderlal Bahuguna |
| iv. Narmada Bachao Andolan | d. R. E. Vittkar |

1. i - a, ii - b, iii - d, iv - c
2. i - c, ii - b, iii - d, iv - a
3. i - c, ii - a, iii - d, iv - b
4. i - c, ii - d, iii - a, iv - b

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 4 Question Id : 3922662564 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

The term that is not related to Triple Planetary Crisis among the following is

1. Pollution
2. Population
3. Climate change
4. Biodiversity loss

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

Question Number : 5 Question Id : 3922662565 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

Choose correct answer

- | | |
|-----------------|-----------------------|
| i. Pathometer | a. Dispersion of heat |
| ii. Lacto meter | b. Depth of Ocean |
| iii. Anemometer | c. Speed of wind |
| iv. Bolometer | d. Purity of milk |

1. i - a, ii - b, iii - d, iv -c
2. i -b, ii - a, iii - c, iv - d
3. i - a, ii - c, iii - d, iv - b
4. i - b, ii - d, iii - a, iv - c

Options :

1. ✖ 1
2. ✖ 2
3. ✖ 3
4. ✔ 4

Question Number : 6 Question Id : 3922662566 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

Milk : Lactic acid :: Vinegar :

1. Citric acid
2. Acetic acid
3. Tartaric acid
4. Carbonic acid

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

Question Number : 7 Question Id : 3922662567 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

Choose correct answer

- | | |
|----------------------------|-------------------|
| i. Ajantha Caves | a. Rajasthan |
| ii. Ambadevi rock Shelters | b. Maharashtra |
| iii. Chandketh garh | c. Madhya Pradesh |
| iv. Kali Bangan | d. West Bengal |

1. i - b, ii - c, iii - d, iv - a
2. i - b, ii - d, iii - c, iv - a
3. i - a, ii - d, iii - b, iv - c
4. i - c, ii - d, iii - b, iv - a

Options :

1. ✓ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

Question Number : 8 Question Id : 3922662568 Question Type : MCQ Option Shuffling : No

Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

2024 – Bharat Ratna Award winners

- a. Karpuri Thakur
- b. L. K. Advani
- c. P. V. Narasimha Rao
- d. M. S. Swaminathan

1. a, b
2. b, c, d
3. a, b, d
4. a, b, c, d

Options :

1. ✗ 1
2. ✗ 2
3. ✗ 3

4. ✓ 4

Question Number : 9 Question Id : 3922662569 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

The concept of 'Five year plans and Planning Commission' are adopted from the constitution of this country

1. Canada
2. France
3. USSR
4. Britain

Options :

1. ✗ 1
2. ✗ 2
3. ✓ 3
4. ✗ 4

Question Number : 10 Question Id : 3922662570 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

In 1674, the troops of Aurangzeb, were defeated by

1. Rana Pratap
2. Shivaji Maharaj
3. Rajaram
4. Sambhaji

Options :

1. ✗ 1
2. ✓ 2
3. ✗ 3
4. ✗ 4

Question Number : 11 Question Id : 3922662571 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

The first war of Independence was started at

1. Sindh
2. Punjab
3. Meerut
4. Delhi

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 12 Question Id : 3922662572 Question Type : MCQ Option Shuffling : No

Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Environment protection agreements

- a. Kyoto protocol
- b. Kigali agreement
- c. Doha agreement
- d. Montreal protocol

1. a, b
2. b, c, d
3. a, b, d
4. a, b, c

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 13 Question Id : 3922662573 Question Type : MCQ Option Shuffling : No

Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Choose correct answer regarding book and Author

- | | |
|----------------------------|-------------------------------|
| i. Chivaraku Migiledi | a. Tripuruneni Gopichand |
| ii. Asamardhuni Jeevayatra | b. Ravuri Bharadwaja |
| iii. Amaravathi Kathalu | c. Sivaraju Venkata Subbaravu |
| iv. Pakudurallu | d. Satyam Sankaramanchi |

1. i - a, ii - d, iii - b, iv - c
2. i - c, ii - d, iii - a, iv - b
3. i - d, ii - c, iii - b, iv - a
4. i - c, ii - a, iii - d, iv - b

Options :

1. ✖ 1
2. ✖ 2
3. ✖ 3
4. ✔ 4

Question Number : 14 Question Id : 3922662574 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

“Robert Peary” discovered

1. North Pole
2. South Pole
3. Brazil
4. Newzealand

Options :

1. ✔ 1
2. ✖ 2
3. ✖ 3
4. ✖ 4

Question Number : 15 Question Id : 3922662575 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Indian Space Research Organisation (ISRO) is situated in

1. Bengaluru
2. Thiruvananthapuram
3. Thumba (Kerala)
4. Sriharikota

Options :

1. ✓ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

Question Number : 16 Question Id : 3922662576 Question Type : MCQ Option Shuffling : No

Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Name of OTT platform launched by Prasar Bharati

1. VOOT
2. PEACOCK
3. WAVES
4. INDIA

Options :

1. ✗ 1
2. ✗ 2
3. ✓ 3
4. ✗ 4

Question Number : 17 Question Id : 3922662577 Question Type : MCQ Option Shuffling : No

Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

In a survey titled 'Best Countries for 2024' released on September 11, 2024. The country that ranked first is

1. Japan
2. Switzerland
3. Canada
4. Unites States of America

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

Question Number : 18 Question Id : 3922662578 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

India's GDP growth rate in Q₂(July – September) of 2024 is

1. 8.1%
2. 7.2%
3. 5.4%
4. 4.5%

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 19 Question Id : 3922662579 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

These institutions collaborated to create India's first Quantum Diamond Microchip Imager are

1. IIT Madars, IIT Roorkee
2. HCL, IIT Patna
3. IIT, Delhi, IIT Kanpur
4. TCS, IIT Bombay

Options :

1. ✖ 1
2. ✖ 2
3. ✖ 3
4. ✔ 4

Question Number : 20 Question Id : 3922662580 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

The person to stand first in the list announced by Hurun Global Indians-2024 of most influential global persons is

1. Koneru Humpy
2. Satya Nadella
3. Sundar Pichai
4. Nita Ambani

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

Section 2

Section Id :	39226691
Section Number :	2
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	20
Number of Questions to be attempted :	20

Section Marks : 10
Maximum Instruction Time : 0
Sub-Section Number : 1
Sub-Section Id : 39226691
Question Shuffling Allowed : Yes

Question Number : 21 Question Id : 3922662581 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

The period of Gargi and Maitreyi

1. Buddhist period
2. Jain period
3. Medieval period
4. Vedic period

Options :

1. ✖ 1
2. ✖ 2
3. ✖ 3
4. ✔ 4

Question Number : 22 Question Id : 3922662582 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

The committee that recommended for the first time to introduce Health education as part of general education in school is

1. Mukharjee Committee
2. Kothari Committee
3. Renuka Ray Committee
4. Shrivastav Committee

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 23 Question Id : 3922662583 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

Correct age ranges of children in restructured school curriculum of NEP – 2020 design (in years)

1. 3 – 8, 8 – 11, 11 – 14 and 14 – 18 years
2. 4 – 9, 9 – 12, 12 – 15 and 16 – 18 years
3. 5 – 10, 10 – 13, 13 – 16 and 16 – 18 years
4. 6 – 10, 11 – 12, 13 – 15 and 16 – 18 years

Options :

1. ✓ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

Question Number : 24 Question Id : 3922662584 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

The headquarters of Swami Vivekananda Youth Movement (SVYM) is located in

1. West Bengal
2. Maharashtra
3. Chicago
4. Karnataka

Options :

1. ✗ 1
2. ✗ 2
3. ✗ 3
4. ✓ 4

Question Number : 25 Question Id : 3922662585 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

The relationship between 'Education' and 'Economics' was given in the lectures of

1. Ragnar Frish
2. Ali Blong
3. Thoedore Schultz
4. Aazad

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 26 Question Id : 3922662586 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

In KGBV, amount given to every girl child for maintenance expenditure is

1. ₹ 500/-
2. ₹ 750/-
3. ₹ 1000/-
4. ₹ 1050/-

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

Question Number : 27 Question Id : 3922662587 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

School and School Book Society was established due to the recommendation of

1. Charles Grant
2. Machaley
3. Elphinstone
4. Charles wood

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 28 Question Id : 3922662588 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

According to NCF – 2005, the academic course admission method to be used in lower secondary level is

1. Non - detention method
2. Testing and Guidance
3. Reservation and Quotas
4. Previous academic merit

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

Question Number : 29 Question Id : 3922662589 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

The Committee / Commission report that emphasized the concept of 'Unity in Diversity' is

1. Radha Krishnan Commission
2. Acharya Nagendra Deva Committee
3. Report of William Adam
4. Kothari Committee

Options :

1. ✖ 1
2. ✖ 2
3. ✖ 3
4. ✔ 4

Question Number : 30 Question Id : 3922662590 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

The article of Child Rights UNC that says about 'the protection of children from narcotic drugs and psychotropic substances' is

1. Article 31
2. Article 32
3. Article 33
4. Article 34

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 31 Question Id : 3922662591 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

The education system in which teachers meetings were conducted on new moon days and full moon days

1. Buddhist Education System
2. Jain Education System
3. Medieval Education System
4. Vedic Education System

Options :

1. ✓ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

Question Number : 32 Question Id : 3922662592 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

In Right of children to Free and Compulsory Education Act, the article that says about 'No Capitation fee' is

1. Article 10
2. Article 11
3. Article 12
4. Article 13

Options :

1. ✗ 1
2. ✗ 2
3. ✗ 3
4. ✓ 4

Question Number : 33 Question Id : 3922662593 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

Choose the correct answer

- a. Metaphysics – Study of reality
 - b. Epistemology – Study of knowledge
 - c. Axiology – Study of values
- 1. a, b
 - 2. a, c
 - 3. a, b, c
 - 4. b, c

Options :

- 1. ✖ 1
- 2. ✖ 2
- 3. ✔ 3
- 4. ✖ 4

Question Number : 34 Question Id : 3922662594 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Educational services that is NOT classified in GATT (General Agreement on Tariffs and Trade)

- 1. Cross border state
- 2. Presence of Natural Persons
- 3. Services supplied by NGO
- 4. Consumption abroad

Options :

- 1. ✖ 1
- 2. ✖ 2
- 3. ✔ 3
- 4. ✖ 4

Question Number : 35 Question Id : 3922662595 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Adolescence Education Programme was launched in the year

1. 2001
2. 2002
3. 2003
4. 2004

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

Question Number : 36 Question Id : 3922662596 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Full form of NPEGL

1. National Plan for Education and Growth of Elementary Level
2. National Policy for Educating Girls at Every Level
3. National Programme for Education of Girls at Elementary Level
4. National Programme for Enhancing Girls Education and Learning

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 37 Question Id : 3922662597 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

‘Draft code of Ethics to Teachers’ was framed by

1. National Council for Teacher Education
2. National Council of Educational Research and Training
3. National Institute for Educational Policy Research
4. Mahatma Gandhi Central University

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

Question Number : 38 Question Id : 3922662598 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

This National Committee recommended Teachers’ job security and salaries for the first time

1. Justice Verma Committee
2. Dr. Yashpal Committee
3. Durgabai Deshmukh Committee
4. D. P. Chattopadhyaya Committee

Options :

1. ✖ 1
2. ✖ 2
3. ✖ 3
4. ✔ 4

Question Number : 39 Question Id : 3922662599 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Feroz Shahi Madrasa was a

1. Celebration to start education
2. Learning center to learn Arabic and Persian language
3. Higher Education Center
4. Separate School for Girls

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 40 Question Id : 3922662600 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

“Government in which everyone has a share is democracy,” is defined by

1. Aristotle
2. Barker
3. MacIver
4. Seeley

Options :

1. ✖ 1
2. ✖ 2
3. ✖ 3
4. ✔ 4

Section 3

Section Id :	39226692
Section Number :	3
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	20
Number of Questions to be attempted :	20
Section Marks :	10
Maximum Instruction Time :	0
Sub-Section Number :	1
Sub-Section Id :	39226692
Question Shuffling Allowed :	Yes

Question Number : 41 Question Id : 3922662601 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

According to cephalo caudal tendency, development

1. Proceeds from head to foot
2. Proceeds from foot to head
3. Is confined to the head only
4. Proceeds from head to heart and back

Options :

1. ✓ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

Question Number : 42 Question Id : 3922662602 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Assimilation, accommodation, scheme are related to the developmental theory proposed by the psychologist

1. Bruner
2. Kohlberg
3. Freud
4. Piaget

Options :

1. ✗ 1
2. ✗ 2
3. ✗ 3
4. ✓ 4

Question Number : 43 Question Id : 3922662603 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

According to Kohlberg 'the stage of maintaining mutual relations and approval of others' is found in

1. Stage 1 level I
2. Stage 3 level II
3. Stage 2 level I
4. Stage 5 level III

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

Question Number : 44 Question Id : 3922662604 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

According to Erikson the psychosocial crisis 'Role identify – Role confusion' is found during

1. Adolescence
2. Early Adulthood
3. Early childhood
4. Play age

Options :

1. ✔ 1
2. ✖ 2
3. ✖ 3
4. ✖ 4

Question Number : 45 Question Id : 3922662605 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The concept of 'Language acquisition devise' is related to

1. Piaget
2. Chomsky
3. Pavlov
4. Kohlberg

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

Question Number : 46 Question Id : 3922662606 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Ravan's standard progressive matrices is a/an

1. Individual Test
2. Performance Test
3. Non verbal Test
4. Projective Test

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 47 Question Id : 3922662607 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

A boy learnt Sanskrit. Now, he wants to learn Hindi. The type of transfer of learning here would be

1. Positive
2. Negative
3. Zero
4. Bilateral

Options :

1. ✓ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

Question Number : 48 Question Id : 3922662608 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

The following is NOT related to EL Thorndike

1. Law of closure
2. Law of effect
3. Law of readiness
4. Law of exercise

Options :

1. ✓ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

Question Number : 49 Question Id : 3922662609 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

In operant conditioning

1. All responses are reinforced
2. Only desired responses are reinforced
3. No response is reinforced
4. Elicited responses are reinforced

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

Question Number : 50 Question Id : 3922662610 Question Type : MCQ Option Shuffling : No

Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

A boy's father gave him money to buy dolls, but he likes so many in the shop, but can only buy one with the money he has. The conflict in him is

1. Approach - Approach
2. Avoidance - Avoidance
3. Approach - Avoidance
4. Double Approach - Avoidance

Options :

1. ✔ 1
2. ✖ 2
3. ✖ 3
4. ✖ 4

Question Number : 51 Question Id : 3922662611 Question Type : MCQ Option Shuffling : No

Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

“A student who fails to get a seat in medical college justifies himself / herself by arguing that he/she doesn't want to be a doctor; this type of defense mechanism is

1. Projection
2. Compensation
3. Internalisation
4. Rationalization

Options :

1. ✖ 1
2. ✖ 2
3. ✖ 3
4. ✔ 4

Question Number : 52 Question Id : 3922662612 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

Engram is a/an

1. Memory hormone
2. Unit to measure frequency
3. Memory trace
4. Audiometric Machine

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 53 Question Id : 3922662613 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

According to Maslow the following are a lower order needs

1. Physiological needs
2. Love & belonging needs
3. Self actualization
4. Need for recognition

Options :

1. ✓ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

Question Number : 54 Question Id : 3922662614 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Emotional Intelligence is a critical part of

1. Concrete Intelligence
2. Hyper Intelligence
3. Hypo Intelligence
4. Social Intelligence

Options :

1. ✗ 1
2. ✗ 2
3. ✗ 3
4. ✓ 4

Question Number : 55 Question Id : 3922662615 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Identify the correct pair

1. Vygotsky - A Mind that Found itself
2. Bruner - The Process of Education
3. Chomsky - Mental Test and Its Measurement
4. Skinner - Discovery of Psychology

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

Question Number : 56 Question Id : 3922662616 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

As per RPWS Act, 2016, the following visual acuity in better eye with best possible correction is treated as blindness

1. Less than 6/18
2. Less than 6/60
3. Less than 6/36
4. Less than 6/24

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

Question Number : 57 Question Id : 3922662617 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

Directive counseling was proposed by

1. Carl Rogers
2. Carl Jung
3. Williamson
4. F. C. Thorn

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 58 Question Id : 3922662618 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

One of the subjects of study that help us in the scientific collection, presentation, analysis and interpretation of numerical facts is

1. Statistics
2. Literary Criticism
3. Analysis
4. Historical Perceptions

Options :

1. ✔ 1
2. ✖ 2
3. ✖ 3
4. ✖ 4

Question Number : 59 Question Id : 3922662619 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Following is not a responsibility of School Management Committee as per RTE 2009

1. Monitoring school functioning
2. Preparation of school development plan
3. Monitoring utilization of funds
4. Preparation of school wise, class wise time table

Options :

1. ✖ 1
2. ✖ 2
3. ✖ 3
4. ✔ 4

Question Number : 60 Question Id : 3922662620 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

Identify Thordike's Secondary Laws of learning

- a. Law of time factor
- b. Law of motivational factor
- c. Law of verbal learning
- d. Law of multiple responses

1. a, b, c
2. a, b, d
3. a, c, d
4. b, c, d

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

Section 4

Section Id : 39226693
Section Number : 4

Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	100
Number of Questions to be attempted :	100
Section Marks :	50
Maximum Instruction Time :	0
Sub-Section Number :	1
Sub-Section Id :	39226693
Question Shuffling Allowed :	Yes

Question Number : 61 Question Id : 3922662621 Question Type : MCQ Option Shuffling : No
 Display Question Number : Yes
 Correct Marks : 0.5 Wrong Marks : 0

$\forall n \in N, 49^n + 16n - 1$ is divisible by

1. 11
2. 9
3. 64
4. 17

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 62 Question Id : 3922662622 Question Type : MCQ Option Shuffling : No
 Display Question Number : Yes
 Correct Marks : 0.5 Wrong Marks : 0

If n is a positive integer then the value of

$$\frac{1^3}{1} + \frac{1^3 + 2^3}{1+3} + \frac{1^3 + 2^3 + 3^3}{1+3+5} + \dots \text{up to } n \text{ terms} =$$

1. $\frac{n(n+1)^2(n+2)}{12}$
2. $\frac{n}{24}[2n^2 + 9n + 13]$
3. $\frac{n(n+1)(n+2)(n+3)}{4}$
4. $\frac{n(n+1)(2n+1)}{3}$

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

Question Number : 63 Question Id : 3922662623 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

If each of the elements of a square matrix is a polynomial in ' x ' and its determinant is Zero for $x = \frac{2}{3}$ then the factor of determinant of the matrix is

1. $(x-2)$
2. $(x-3)$
3. $(3x+2)$
4. $(3x-2)$

Options :

1. ✖ 1
2. ✖ 2
3. ✖ 3
4. ✔ 4

Question Number : 64 Question Id : 3922662624 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The system of three equations in three unknowns $AX = D$ has infinitely many solutions if

1. $\text{rank}(A) = \text{rank}([AD]) = 3$
2. $\text{rank}(A) = \text{rank}([AD]) = 2$
3. $\text{rank}(A) \neq \text{rank}([AD])$
4. $\text{rank}(A) = \text{rank}([AD]) < 3$

Options :

1. ✖ 1
2. ✖ 2
3. ✖ 3
4. ✔ 4

Question Number : 65 Question Id : 3922662625 Question Type : MCQ Option Shuffling : No

Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The rank of $\begin{bmatrix} 1 & -1 & 1 \\ 1 & 1 & -1 \\ -1 & 1 & 1 \end{bmatrix}$ is

1. 0
2. 1
3. 2
4. 3

Options :

1. ✖ 1
2. ✖ 2
3. ✖ 3
4. ✔ 4

Question Number : 66 Question Id : 3922662626 Question Type : MCQ Option Shuffling : No

Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The system of equations $AX = 0$ should have trivial solution only if

1. $\text{Rank}(A) < 3$
2. $\text{Rank}(A) > 3$
3. $\text{Rank}(A) = 3$
4. $\text{Rank}[A] = 2$

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 67 Question Id : 3922662627 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Let the position vectors of the points A, B, C and D be $5\bar{i} + 5\bar{j} + 2\lambda\bar{k}$, $\bar{i} + 2\bar{j} + 3\bar{k}$, $-2\bar{i} + \lambda\bar{j} + 4\bar{k}$ and $-\bar{i} + 5\bar{j} + 6\bar{k}$ set $S = \{\lambda \in \mathbb{R}; \text{ points A, B, C and D are coplanar}\}$.

Then $\sum_{\lambda \in S} (\lambda + 2)^2 =$

1. 41
2. 25
3. 13
4. $\frac{35}{2}$

Options :

1. ✔ 1
2. ✖ 2
3. ✖ 3
4. ✖ 4

Question Number : 68 Question Id : 3922662628 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The solution of the system of equations

$$3x + 4y + 5z = 18, 2x - y + 8z = 13, 5x - 2y + 7z = 20 \text{ is}$$

1. $x = 3, y = 2, z = 3$
2. $x = 3, y = 1, z = 1$
3. $x = 1, y = 3, z = 1$
4. $x = 1, y = 1, z = 3$

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

Question Number : 69 Question Id : 3922662629 Question Type : MCQ Option Shuffling : No

Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

A square Matrix $A = [a_{ij}]$ is said to be lower Triangular if

1. $a_{ij} = 0 \forall i > j$
2. $a_{ij} = 0 \forall i = j$
3. $a_{ij} = 0 \forall i < j$
4. $a_{ij} \neq 0 \forall i = j$

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 70 Question Id : 3922662630 Question Type : MCQ Option Shuffling : No

Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The angle between the planes $2x - 3y - 6z = 5$ and $6x + 2y - 9z = 4$ is

1. $\cos \theta = \frac{72}{77}$
2. $\cos \theta = \frac{48}{77}$
3. $\cos \theta = \frac{60}{77}$
4. $\cos \theta = \frac{36}{77}$

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 71 Question Id : 3922662631 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

For any three vectors $\vec{a}, \vec{b}, \vec{c}$, $[\vec{b} + \vec{c} \quad \vec{c} + \vec{a} \quad \vec{a} + \vec{b}] =$

1. $3[\vec{a} \quad \vec{b} \quad \vec{c}]$
2. $2[\vec{a} \quad \vec{b} \quad \vec{c}]$
3. $[\vec{a} \quad \vec{b} \quad \vec{c}]^2$
4. $[\vec{a} \quad \vec{b} \quad \vec{c}]^3$

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

Question Number : 72 Question Id : 3922662632 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

If $\sec \theta + \tan \theta = \frac{2}{3}$, then the quadrant in which θ lies

1. first quadrant
2. second quadrant
3. third quadrant
4. fourth quadrant

Options :

1. ✖ 1
2. ✖ 2
3. ✖ 3
4. ✔ 4

Question Number : 73 Question Id : 3922662633 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

If $\sin \alpha = \frac{1}{\sqrt{10}}$, $\sin \beta = \frac{1}{\sqrt{5}}$ and α, β are acute then $\alpha + \beta =$

1. $\frac{\pi}{6}$
2. $\frac{\pi}{4}$
3. $\frac{\pi}{3}$
4. $\frac{\pi}{2}$

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

Question Number : 74 Question Id : 3922662634 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

If A is not an integral multiple of $\frac{\pi}{2}$, then $\tan A + \cot A =$

1. $2 \sin 2A$
2. $2 \cos 2A$
3. $2 \sec 2A$
4. $2 \operatorname{cosec} 2A$

Options :

1. ✖ 1
2. ✖ 2
3. ✖ 3
4. ✔ 4

Question Number : 75 Question Id : 3922662635 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

For any $\theta \in \mathbb{R}$, $4 \sin \frac{5\theta}{2} \cos \frac{3\theta}{2} \cos 3\theta =$

1. $\sin \theta - \sin 2\theta + \sin 4\theta + \sin 7\theta$
2. $\cos \theta - \cos 2\theta + \cos 4\theta + \cos 7\theta$
3. $\sin \theta - \cos 2\theta + \sin 4\theta + \cos 7\theta$
4. $\cos \theta - \sin 2\theta + \cos 4\theta + \sin 7\theta$

Options :

1. ✔ 1
2. ✖ 2
3. ✖ 3
4. ✖ 4

Question Number : 76 Question Id : 3922662636 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

For $x \in (-\infty, -1] \cup [1, \infty)$, $\operatorname{Cosec}^{-1}(-x) =$

1. $\operatorname{Cosec}^{-1} x$
2. $-\operatorname{Cosec}^{-1} x$
3. $\operatorname{Cosec}^{-1}\left(\frac{1}{x}\right)$
4. $\operatorname{Cosec}^{-1}\left(-\frac{1}{x}\right)$

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

Question Number : 77 Question Id : 3922662637 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

The value of $\sin\left(4\tan^{-1}\frac{1}{3}\right) =$

1. $\frac{24}{25}$
2. $\frac{7}{25}$
3. $\frac{9}{16}$
4. $\frac{7}{16}$

Options :

1. ✔ 1
2. ✖ 2
3. ✖ 3
4. ✖ 4

Question Number : 78 Question Id : 3922662638 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

The approximate value of e is

1. 2.3182
2. 2.7182
3. 3.3182
4. 3.7182

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

Question Number : 79 Question Id : 3922662639 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

In a $\triangle ABC$, $a^2 \cot A + b^2 \cot B + c^2 \cot C =$

1. $\frac{abc}{4R}$
2. $\frac{abc}{4R^2}$
3. $\frac{abc}{R}$
4. $\frac{abc}{R^2}$

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 80 Question Id : 3922662640 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

In a ΔABC , $\frac{1}{r_1} + \frac{1}{r_2} + \frac{1}{r_3} =$

1. $\frac{1}{r}$
2. $\frac{1}{r^2}$
3. $\frac{\Delta}{r_1 r_2 r_3}$
4. $\frac{\Delta}{r}$

Options :

1. ✓ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

Question Number : 81 Question Id : 3922662641 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

For any $x \in \mathbb{R}$, $e^{\sinh^{-1}(\cot \theta)} =$

1. $\sec \theta + \tan \theta$
2. $\sec \theta - \tan \theta$
3. $\cot \theta + \operatorname{cosec} \theta$
4. $-\cot \theta + \operatorname{cosec} \theta$

Options :

1. ✗ 1
2. ✗ 2
3. ✓ 3
4. ✗ 4

Question Number : 82 Question Id : 3922662642 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

If $x \in \left(-\frac{1}{\sqrt{3}}, \frac{1}{\sqrt{3}}\right)$ then $\tan^{-1}\left(\frac{3a^2x - x^3}{a^3 - 3ax^2}\right) = K \tan^{-1}\left(\frac{x}{a}\right)$ then $K =$

1. 3
2. 1
3. -1
4. -3

Options :

1. ✓ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

Question Number : 83 Question Id : 3922662643 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

If $\frac{\sin^4 \theta}{a} + \frac{\cos^4 \theta}{b} = \frac{1}{a+b}$ then $\frac{\sin^8 \theta}{a} + \frac{\cos^8 \theta}{b} =$

1. $\frac{1}{a+b}$
2. $\frac{1}{(a+b)^2}$
3. $\frac{1}{(a+b)^3}$
4. $\frac{1}{(a-b)^3}$

Options :

1. ✗ 1
2. ✗ 2
3. ✓ 3
4. ✗ 4

Question Number : 84 Question Id : 3922662644 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The set $A = \{1, 4, 9, 16, \dots\}$ in set builder form

1. $\{x : x = n^2 \text{ where } n \in \mathbb{N}\}$
2. $\{x : x = n^2 \text{ where } n \in \mathbb{Q}\}$
3. $\{x : x = n^2 \text{ where } n \in \mathbb{W}\}$
4. $\{x : x = n^2 \text{ where } n \in \mathbb{Z}\}$

Options :

1. ✓ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

Question Number : 85 Question Id : 3922662645 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

There are 200 individuals with skin disorder, 120 had been exposed to the chemical A, 50 to chemical B and 30 to the chemicals A & B. The number of individuals exposed to A but not to chemical B is

1. 40
2. 70
3. 80
4. 90

Options :

1. ✗ 1
2. ✗ 2
3. ✗ 3
4. ✓ 4

Question Number : 86 Question Id : 3922662646 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

The domain of the real valued function $f(x) = \sqrt{\log_{10}\left(\frac{3-x}{x}\right)}$

on $\mathbf{R}$ is

1. $\left[0, \frac{3}{2}\right]$
2. $(0, 3]$
3. $[0, 3)$
4. $\left(0, \frac{3}{2}\right]$

Options :

1. ✖ 1
2. ✖ 2
3. ✖ 3
4. ✔ 4

Question Number : 87 Question Id : 3922662647 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

If $A = \{1, 2, 3\}$, $B = \{\alpha, \beta, \gamma\}$, $C = \{p, q, r\}$ and $f: A \rightarrow B, g: B \rightarrow C$ are defined by $f = \{(1, \alpha), (2, \gamma), (3, \beta)\}$, $g = \{(\alpha, q), (\beta, r), (\gamma, p)\}$ then

$(g \circ f)^{-1} =$

1. $\{(1, p), (2, q), (3, r)\}$
2. $\{(q, 1), (p, 2), (r, 3)\}$
3. $\{(p, 1), (q, 2), (r, 3)\}$
4. $\{(1, q), (2, r), (3, p)\}$

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

Question Number : 88 Question Id : 3922662648 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

If $\left(\frac{1+i}{1-i}\right)^3 - \left(\frac{1-i}{1+i}\right)^3 = x + iy$ then the values of x and y are

1. 0, 1
2. 0, 0
3. 0, - 1
4. 0, - 2

Options :

1. ✖ 1
2. ✖ 2
3. ✖ 3
4. ✔ 4

Question Number : 89 Question Id : 3922662649 Question Type : MCQ Option Shuffling : No

Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The polar form of the complex number $-1-i$ is

1. $\sqrt{2} \operatorname{Cis}\left(-\frac{3\pi}{4}\right)$
2. $\sqrt{2} \operatorname{Cis}\left(-\frac{3\pi}{2}\right)$
3. $\sqrt{2} \operatorname{Cis}\left(\frac{\pi}{3}\right)$
4. $\sqrt{2} \operatorname{Cis}\left(-\frac{\pi}{3}\right)$

Options :

1. ✔ 1
2. ✖ 2
3. ✖ 3
4. ✖ 4

Question Number : 90 Question Id : 3922662650 Question Type : MCQ Option Shuffling : No

Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

If $(1+x)^n = a_0 + a_1x + a_2x^2 + \dots + a_nx^n$, then $a_1 - a_3 + a_5 - \dots =$

1. $2^{\frac{n}{2}} \cos \frac{n\pi}{4}$

2. $2^{\frac{n}{2}} \sin \frac{n\pi}{4}$

3. $2^n \cos \frac{n\pi}{4}$

4. $2^n \sin \frac{n\pi}{4}$

Options :

1. ✖ 1

2. ✔ 2

3. ✖ 3

4. ✖ 4

Question Number : 91 Question Id : 3922662651 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

If $1, \omega, \omega^2$ are the cube roots of unity then

$$(1 - \omega + \omega^2)^5 + (1 + \omega - \omega^2)^5 =$$

1. 8

2. 16

3. 32

4. 48

Options :

1. ✖ 1

2. ✖ 2

3. ✔ 3

4. ✖ 4

Question Number : 92 Question Id : 3922662652 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

If a, b, c are in A.P, then the roots of the equation $ax^2 + 2bx + c = 0$ for $a, b, c \in \mathbb{R}$, are

1. real
2. equal
3. imaginary
4. Conjugate

Options :

1. ✓ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

Question Number : 93 Question Id : 3922662653 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

In a cricket match Anudeep took one wicket less than twice then number of wickets taken by Chandu. If the product of the number of wickets taken by them is 15. Then the number of wickets taken by Anudeep is

1. 5
2. 4
3. 3
4. 2

Options :

1. ✓ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

Question Number : 94 Question Id : 3922662654 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

The sum of the cubes of the roots of the equation $x^3 - px^2 + qx - r = 0$ in terms of p, q, r is

1. $p^3 + q^3 + r^3$
2. $p^3 - 3pq + 3pr$
3. $p^3 - 3pq + 3r$
4. $p^3 + q^3 + 3qr$

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 95 Question Id : 3922662655 Question Type : MCQ Option Shuffling : No

Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The polynomial equation whose roots are the reciprocals of the roots of $x^5 + 11x^4 + x^3 + 4x^2 - 13x + 6 = 0$ is

1. $6x^5 - 11x^4 - x^3 - 4x^2 + 13x + 6 = 0$
2. $6x^5 - 13x^4 + 4x^3 + x^2 + 11x + 1 = 0$
3. $6x^5 + 13x^4 + 4x^3 - x^2 - 11x + 1 = 0$
4. $6x^5 + 11x^4 + x^3 + 4x^2 - 13x + 6 = 0$

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

Question Number : 96 Question Id : 3922662656 Question Type : MCQ Option Shuffling : No

Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

If ${}^{(n+1)}P_5 : {}^nP_6 = 2:7$, then $n =$

1. 9
2. 10
3. 11
4. 12

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 97 Question Id : 3922662657 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

If ${}^{22}C_r$ is the largest binomial co-efficient in the expansion of $(1+x)^{22}$, then the value of ${}^{13}C_r$ is

1. 72
2. 78
3. 84
4. 90

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

Question Number : 98 Question Id : 3922662658 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

The number of 4-digit numbers that can be formed using the digits 1, 2, 3, 4, 5, 6 that are divisible by 3 when repetition is allowed

1. 648
2. 432
3. 324
4. 216

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

Question Number : 99 Question Id : 3922662659 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

For $r = 0, 1, 2, 3 \dots n$, $C_0 \cdot C_r + C_1 \cdot C_{r+1} + C_2 \cdot C_{r+2} + \dots =$

1. ${}^nC_{n+r}$
2. ${}^{2n}C_r$
3. ${}^{2n}C_{n+r}$
4. ${}^{2n}C_{\frac{n+r}{2}}$

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 100 Question Id : 3922662660 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

If $\frac{3x-18}{x^3(x+3)} = \frac{A}{x} + \frac{B}{x^2} + \frac{C}{x^3} + \frac{D}{x+3}$ then the value of $A+B-C+D=$

1. 18
2. 9
3. -6
4. -12

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

Question Number : 101 Question Id : 3922662661 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

When $|x| < 1$, $1 + 2x + 3x^2 + 4x^3 + \dots + (K+1)x^K + \dots =$

1. $\frac{1}{1+x}$
2. $\frac{1}{(1+x)^2}$
3. $\frac{1}{1-x}$
4. $\frac{1}{(1-x)^2}$

Options :

1. ✖ 1
2. ✖ 2
3. ✖ 3
4. ✔ 4

Question Number : 102 Question Id : 3922662662 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

The mean of 5 observations is 4.4 and their variance is 8.24. If three of the observations are 1, 2 and 6, then the other two observations are

1. 3, 7
2. 3, 9
3. 4, 7
4. 4, 9

Options :

1. ✖ 1
2. ✖ 2
3. ✖ 3
4. ✔ 4

Question Number : 103 Question Id : 3922662663 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

For any two events A and B, $P(A^c \cap B^c) =$

1. $1 + P(A) + P(B) + P(A \cup B)$
2. $1 + P(A) - P(B) + P(A \cap B)$
3. $1 + P(A^c) - P(B^c) - P(A \cup B)$
4. $1 - P(A) - P(B) + P(A \cap B)$

Options :

1. ✖ 1
2. ✖ 2
3. ✖ 3
4. ✔ 4

Question Number : 104 Question Id : 3922662664 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

If X is a random variable with probability distribution

$$P(X = k) = \frac{(k+1)c}{2^k}, k = 0, 1, 2, \dots \text{ then the value of } c \text{ is}$$

1. $\frac{1}{4}$
2. $\frac{1}{3}$
3. $\frac{1}{2}$
4. 1

Options :

1. ✓ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

Question Number : 105 Question Id : 3922662665 Question Type : MCQ Option Shuffling : No

Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

A person speaks truth in 75% of the cases and other in 80% cases.
The probability that their statements about an incident do not match is

1. $\frac{3}{4}$
2. $\frac{4}{5}$
3. $\frac{7}{20}$
4. $\frac{9}{20}$

Options :

1. ✗ 1
2. ✗ 2
3. ✓ 3
4. ✗ 4

Question Number : 106 Question Id : 3922662666 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

The variance of 5, 12, 3, 18, 6, 8, 2, 10 is

1. 22.25
2. 23.75
3. 24.25
4. 24.75

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 107 Question Id : 3922662667 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

The 7th term in the expansion of $\left[\frac{4}{x^3} + \frac{x^2}{2}\right]^{14}$ is

1. ${}^{14}C_6 (4^8) (x^{-14})$
2. ${}^{14}C_6 (4^{12}) (x^{-24})$
3. ${}^{14}C_6 (4^6) (x^{14})$
4. ${}^{14}C_6 (4^5) (x^{-12})$

Options :

1. ✖ 1
2. ✖ 2
3. ✖ 3
4. ✔ 4

Question Number : 108 Question Id : 3922662668 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

If α, β are the roots of the equation $x^2 - 2x + 4 = 0$, then for any $n \in N, \alpha^n + \beta^n =$

1. $2^{n+1} \cos\left(\frac{n\pi}{6}\right)$
2. $2^{n+1} \cos\left(\frac{n\pi}{3}\right)$
3. $2^{n+1} \cos\left(\frac{n\pi}{2}\right)$
4. $2^{n+1} \cos(n\pi)$

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

Question Number : 109 Question Id : 3922662669 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

$i^2 + i^4 + i^6 \dots + (2n+1)$ terms =

1. 0
2. 1
3. -1
4. $2n+1$

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 110 Question Id : 3922662670 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

If the letters of the word PRISON are permuted in all possible ways and the words thus formed are arranged in dictionary order then the rank of the word PRISON is

1. 434
2. 438
3. 441
4. 445

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

Question Number : 111 Question Id : 3922662671 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

The ratio in which centroid of triangle divide its orthocentre and circumcentre

1. 1 : 1
2. 2 : 1
3. 2 : 3
4. 3 : 2

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

Question Number : 112 Question Id : 3922662672 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

The area of the triangle formed by the points $(a, b + c)$, $(b, c + a)$ and $(c, a + b)$ is

1. abc
2. $a + b + c$
3. 1
4. 0

Options :

1. ✖ 1
2. ✖ 2
3. ✖ 3
4. ✔ 4

Question Number : 113 Question Id : 3922662673 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The radius of the circle passing through the foci of an ellipse $9x^2 + 16y^2 = 144$ and having least radius is

1. $\sqrt{7}$
2. $\sqrt{12}$
3. 7
4. 12

Options :

1. ✔ 1
2. ✖ 2
3. ✖ 3
4. ✖ 4

Question Number : 114 Question Id : 3922662674 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The transformed equation of $x \cos \alpha + y \sin \alpha = p$ when the axes are rotated through an angle α is

1. $y = p$
2. $x = p$
3. $x + y = p$
4. $x - y = p$

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

Question Number : 115 Question Id : 3922662675 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

The point to which the origin should be shifted in order to eliminate the first degree terms from $2x^2 + 4xy + 5y^2 - 4x - 22y + 7 = 0$ is

1. $(1, -3)$
2. $(2, 3)$
3. $(-2, 3)$
4. $(1, 3)$

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 116 Question Id : 3922662676 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

Father of Geometrical results during (323 – 283) BC is

1. Rene Descartes
2. Pierre Fermat
3. Blaise Pascal
4. Euclid

Options :

1. ✖ 1
2. ✖ 2
3. ✖ 3
4. ✔ 4

Question Number : 117 Question Id : 3922662677 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The set of values of 'a', if the points (1, 2) & (3, 4) lie to the same side of the line $3x - 5y + a = 0$ is

1. $(-\infty, 7) \cup (11, \infty)$
2. $(-\infty, 7] \cap [11, \infty)$
3. $R - (-\infty, 7)$
4. $R - (11, \infty)$

Options :

1. ✔ 1
2. ✖ 2
3. ✖ 3
4. ✖ 4

Question Number : 118 Question Id : 3922662678 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The equations of the lines passing through the point of intersection of the lines $3x + 2y + 4 = 0$, $2x + 5y - 1 = 0$ and whose distance from the point $(2, -1)$ is 2 is

1. $y + 1 = 0; 4x + 3y + 5 = 0$
2. $y + 1 = 0; 4x + 3y - 5 = 0$
3. $y - 1 = 0; 4x + 3y + 5 = 0$
4. $y - 1 = 0; 4x + 3y - 5 = 0$

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 119 Question Id : 3922662679 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The image of the point $(1, 2)$ w.r.t line $3x + 4y - 1 = 0$ is

1. $\left(-\frac{6}{5}, -\frac{7}{5}\right)$
2. $\left(-\frac{7}{5}, -\frac{6}{5}\right)$
3. $\left(\frac{6}{5}, \frac{7}{5}\right)$
4. $\left(\frac{7}{5}, \frac{6}{5}\right)$

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

Question Number : 120 Question Id : 3922662680 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The product of the lengths of perpendiculars from $(2, 1)$ up on the lines $12x^2 + 25xy + 12y^2 + 10x + 11y + 2 = 0$ is

1. $\frac{25}{143}$
2. 143
3. $\frac{143}{25}$
4. 25

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 121 Question Id : 3922662681 Question Type : MCQ Option Shuffling : No

Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The point collinear with $(1, -2, -3)$ and $(2, 0, 0)$ among the following is

1. $(0, 4, 6)$
2. $(0, -4, -5)$
3. $(0, -4, -6)$
4. $(0, -4, 6)$

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 122 Question Id : 3922662682 Question Type : MCQ Option Shuffling : No

Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

If the extremities of a diagonal of a square are $(1, -2, 3), (2, -3, 5)$ then the length of its side is

1. $\sqrt{6}$
2. $\sqrt{3}$
3. $\sqrt{5}$
4. $\sqrt{7}$

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

Question Number : 123 Question Id : 3922662683 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The value of $\lim_{x \rightarrow \infty} \frac{x^2 - \sin x}{x^2 - 2}$

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

Options :

1. ✖ 1
2. ✖ 2
3. ✖ 3
4. ✔ 4

Question Number : 124 Question Id : 3922662684 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

For what values of x , the function $f(x) = \frac{x - |x|}{x}, (x \neq 0)$ is continuous

on

1. $\mathbf{R}$
2. $\mathbf{R} - \{0\}$
3. $\mathbf{R}^+$
4. $\mathbf{R}^-$

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

Question Number : 125 Question Id : 3922662685 Question Type : MCQ Option Shuffling : No

Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

$$\lim_{x \rightarrow 0} \left(\frac{\sqrt{1+x} - 1}{x} \right)$$

1. 1
2. 2
3. $-\frac{1}{4}$
4. $\frac{1}{2}$

Options :

1. ✖ 1
2. ✖ 2
3. ✖ 3
4. ✔ 4

Question Number : 126 Question Id : 3922662686 Question Type : MCQ Option Shuffling : No

Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

If $y = x\sqrt{a^2 + x^2} + a^2 \log(x + \sqrt{a^2 + x^2})$ then the value of $\frac{dy}{dx} =$

1. $2a\sqrt{a^2 + x^2}$
2. $2x\sqrt{a^2 + x^2}$
3. $2\sqrt{a^2 + x^2}$
4. $\sqrt{a^2 + x^2}$

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 127 Question Id : 3922662687 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

If $x = \log(1 + \sin^2 y)$ then $\frac{dy}{dx} =$

1. $\frac{e^x}{\sin 2y}$
2. $\frac{\log(1 + \sin^2 y)}{\sin 2y}$
3. $\frac{1 - \sin^2 y}{\sin 2y}$
4. $\frac{e^x}{1 + \sin 2y}$

Options :

1. ✔ 1
2. ✖ 2
3. ✖ 3
4. ✖ 4

Question Number : 128 Question Id : 3922662688 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

If $x = a(t - S \sin t)$; $y = a(1 + C \cos t)$, then $y_2 =$

1. $\frac{1}{\sin^4\left(\frac{t}{2}\right)}$
2. $\sin^4\left(\frac{t}{2}\right)$
3. $\frac{1}{4a \sin^4\left(\frac{t}{2}\right)}$
4. $4a \sin^4\left(\frac{t}{2}\right)$

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 129 Question Id : 3922662689 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

If $y = \sqrt{\tan x + \sqrt{\tan x + \sqrt{\tan x + \dots \infty}}}$ then $\frac{dy}{dx} =$

1. $\frac{\cos^2 x}{2y-1}$
2. $\frac{\sec^2 x}{2y-1}$
3. $\frac{\tan x}{2y-1}$
4. $\frac{\cot x}{2y-1}$

Options :

1. ✖ 1
2. ✔ 2

3. ✖ 3

4. ✖ 4

Question Number : 130 Question Id : 3922662690 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

If the increase in the side of a square is 2% then find the approximate percentage increase in its area

1. 2

2. 3

3. 4

4. 1

Options :

1. ✖ 1

2. ✖ 2

3. ✔ 3

4. ✖ 4

Question Number : 131 Question Id : 3922662691 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The point on the curve $y = x^3 - 11x + 5$ at which the tangent is $y = x - 11$ is

1. (2, -9)

2. (-9, 2)

3. (-2, -9)

4. (-9, -2)

Options :

1. ✔ 1

2. ✖ 2

3. ✖ 3

4. ✖ 4

Question Number : 132 Question Id : 3922662692 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The length of the subnormal at any point on the curve $y^2 = 4ax$ is

1. Zero
2. Square of the ordinates
3. Constant
4. Square of the abscissa

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 133 Question Id : 3922662693 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The two positive integers x & y such that $x + y = 60$ and xy^3 is maximum are

1. $x = 15, y = 45$
2. $x = 45, y = 15$
3. $x = 50, y = 10$
4. $x = 10, y = 50$

Options :

1. ✔ 1
2. ✖ 2
3. ✖ 3
4. ✖ 4

Question Number : 134 Question Id : 3922662694 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The point on the curve $y^2 = x$, which is nearest to the point $(4, 0)$

1. $\left(\frac{7}{2}, \sqrt{\frac{7}{2}}\right)$
2. $\left(\frac{7}{2}, 0\right)$
3. $\left(-\frac{7}{2}, \sqrt{\frac{7}{2}}\right)$
4. $\left(-\frac{7}{2}, -\sqrt{\frac{7}{2}}\right)$

Options :

1. ✓ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

Question Number : 135 Question Id : 3922662695 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

If $S = 0$ is a circle with centre C and radius r . $P(x_1, y_1)$ be any point in plane. Then $CP^2 - r^2$ is defined as

1. Length of the tangent
2. Polar
3. Chord of contact
4. Power

Options :

1. ✗ 1
2. ✗ 2
3. ✗ 3
4. ✓ 4

Question Number : 136 Question Id : 3922662696 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

If a circle passes through the given four points then the four points are said to be

1. Non collinear
2. Collinear
3. Concyclic
4. Vertices of triangle

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 137 Question Id : 3922662697 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

The area of the triangle formed by the normal at $(3, -4)$ to the circle $x^2 + y^2 - 22x - 4y + 25 = 0$ with the co-ordinate axes is

1. $\frac{625}{24}$
2. $\frac{625}{12}$
3. $\frac{25}{24}$
4. $\frac{25}{12}$

Options :

1. ✔ 1
2. ✖ 2
3. ✖ 3
4. ✖ 4

Question Number : 138 Question Id : 3922662698 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

If the line $3x + 4y + 4 = 0$ makes a chord of length 2 units on the circle whose centre is $(-2, 3)$ then the equation of the circle is

1. $x^2 + y^2 - 4x - 6y + 8 = 0$
2. $x^2 + y^2 - 4x + 6y + 8 = 0$
3. $x^2 + y^2 + 4x - 6y + 8 = 0$
4. $x^2 + y^2 + 4x + 6y + 8 = 0$

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 139 Question Id : 3922662699 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

If P, Q are inverse points w.r.t $S = 0$, then

1. P, Q are conjugate point
2. P, Q are ends of a diameter of the circle
3. P, Q have no relation w.r.t circle
4. P, Q coincide

Options :

1. ✔ 1
2. ✖ 2
3. ✖ 3
4. ✖ 4

Question Number : 140 Question Id : 3922662700 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

If the circles $x^2 + y^2 + 2gx + 2fy = 0$, $x^2 + y^2 + 2g^1x + 2f^1y = 0$ touch each other then the condition is

1. $f + g = f^1 + g^1$
2. $f g = f^1 g^1$
3. $f f^1 = g g^1$
4. $g f^1 = f g^1$

Options :

1. ✖ 1
2. ✖ 2
3. ✖ 3
4. ✔ 4

Question Number : 141 Question Id : 3922662701 Question Type : MCQ Option Shuffling : No

Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The equation of the parabola whose vertex is $(3, -2)$ and focus $(3, 1)$ is

1. $(y - 3)^2 = 12(y + 2)$
2. $(y + 3)^2 = 12(y - 2)$
3. $(x - 3)^2 = 12(y + 2)$
4. $(x + 3)^2 = 12(y - 2)$

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 142 Question Id : 3922662702 Question Type : MCQ Option Shuffling : No

Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The orthocenter of the triangle formed by any three tangents to a parabola lies on

1. its latus rectum
2. directrix of the parabola
3. the tangent at its vertex
4. the axes of the parabola

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

Question Number : 143 Question Id : 3922662703 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

If a normal chord at a point 't' on the parabola $y^2 = 4ax$ subtends a right angle at vertex then the value of 't' is

1. $\sqrt{2}$
2. $-\sqrt{2}$
3. $\pm\sqrt{2}$
4. ± 1

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 144 Question Id : 3922662704 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

If the length of the latus rectum is equal to half of its minor axes of an ellipse in the standard form, then the value of its eccentricity is

1. $\sqrt{3}$
2. $\frac{\sqrt{3}}{2}$
3. $2\sqrt{3}$
4. $\frac{2}{\sqrt{3}}$

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

Question Number : 145 Question Id : 3922662705 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

The atmost number of normals that can be drawn from a given point to an ellipse are

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

Options :

1. ✖ 1
2. ✖ 2
3. ✖ 3
4. ✔ 4

Question Number : 146 Question Id : 3922662706 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

Angle between the two asymptotes of a hyperbola $\frac{x^2}{a^2} - \frac{y^2}{b^2} = 1, a > b$ is

1. $2 \tan^{-1} \left(\frac{a}{b} \right)$
2. $\sin^{-1}(2e)$
3. $2 \tan^{-1} \left(\frac{b}{a} \right)$
4. $2 \sin^{-1}(2e)$

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 147 Question Id : 3922662707 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

The rectangular hyperbola among the following is

1. $\frac{x^2}{a^2} - \frac{y^2}{b^2} = 0$
2. $x^2 + y^2 = a^2$
3. $\frac{x}{a} + \frac{y}{b} = 1$
4. $xy = 1$

Options :

1. ✖ 1
2. ✖ 2
3. ✖ 3
4. ✔ 4

Question Number : 148 Question Id : 3922662708 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

$$\int \frac{x^2+1}{x^4+1} dx \text{ on } \mathbf{R}$$

1. $\frac{1}{\sqrt{2}} \tan^{-1} \left(\frac{x^2-1}{\sqrt{2}x} \right) + C$
2. $\tan^{-1} \left(\frac{x^2-1}{\sqrt{2}x} \right) + C$
3. $\sqrt{2} \tan^{-1} \left(\frac{x^2-1}{\sqrt{2}x} \right) + C$
4. $\frac{1}{2} \tan^{-1} \left(\frac{x^2-1}{\sqrt{2}x} \right) + C$

Options :

1. ✓ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

Question Number : 149 Question Id : 3922662709 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

$$\int \cosh^{-1}(x) dx \text{ on } [1, \alpha)$$

1. $x \cosh^{-1} x - \sqrt{x^2-1} + C$
2. $\cosh^{-1} x - \sqrt{x^2-1} + C$
3. $x \cosh^{-1} x + \sqrt{x^2-1} + C$
4. $\cosh^{-1} x + \sqrt{x^2-1} + C$

Options :

1. ✓ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

Question Number : 150 Question Id : 3922662710 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

$$\int_{-\frac{\pi}{2}}^{\frac{\pi}{2}} \sin|x| dx =$$

1. 1
2. $\frac{\pi}{4}$
3. 2
4. $\frac{\pi}{2}$

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 151 Question Id : 3922662711 Question Type : MCQ Option Shuffling : No

Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

$$\int_0^{\frac{\pi}{2}} \sin^6 x \cos^4 x dx =$$

1. $\frac{3\pi}{512}$
2. $\frac{8\pi}{135}$
3. $\frac{3\pi}{128}$
4. $\frac{\pi}{16}$

Options :

1. ✔ 1
2. ✖ 2
3. ✖ 3
4. ✖ 4

Question Number : 152 Question Id : 3922662712 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

Area bounded by the curves $y = \sin x$ and $y = \cos x$ between any two consecutive points of intersection is

1. $\sqrt{2}$
2. $2\sqrt{2}$
3. $3\sqrt{2}$
4. $4\sqrt{2}$

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

Question Number : 153 Question Id : 3922662713 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

These are of the region bounded by $\frac{x^2}{a^2} + \frac{y^2}{b^2} = 1$ (ellipse) is

1. $16ab$
2. $3ab$
3. $\frac{\pi}{3}ab$
4. πab

Options :

1. ✖ 1
2. ✖ 2
3. ✖ 3
4. ✔ 4

Question Number : 154 Question Id : 3922662714 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

The differential equation corresponding to $y = A \cos 3x + B \sin 3x$ where A & B are parameters

1. $y_1 + 9y = 0$
2. $y_2 + 9y = 0$
3. $y + y_2 = 0$
4. $y_1 + y = 0$

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

Question Number : 155 Question Id : 3922662715 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Solution of $\frac{dy}{dx} - x \tan(y-x) = 1$ is

1. $\log |\cos(y-x)| = \frac{x^2}{2} + c$
2. $\log |\tan(y-x)| = x^2 + c$
3. $\log |\sin(y-x)| = \frac{x^2}{2} + c$
4. $\log |\cot(y-x)| = \frac{x^2}{2} + c$

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 156 Question Id : 3922662716 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Solution of $\frac{dy}{dx} = \frac{x^2 + y^2}{2x^2}$ is

1. $2x = (x - y) \log x + c$
2. $2x = (x + y) \log x + c$
3. $2y = (x - y) \log x + c$
4. $2y = (x + y) \log x + c$

Options :

1. ✓ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

Question Number : 157 Question Id : 3922662717 Question Type : MCQ Option Shuffling : No

Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Integrating factor of the differential equation

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

1. $\operatorname{Cosec} x$
2. $\sec x$
3. $\tan x$
4. $\cot x$

Options :

1. ✗ 1
2. ✓ 2
3. ✗ 3
4. ✗ 4

Question Number : 158 Question Id : 3922662718 Question Type : MCQ Option Shuffling : No

Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Solution of $(1+y^2)dx = (\tan^{-1}y - x)dy$ is

1. $x e^{\tan^{-1}y} = e^{\tan^{-1}y} (\tan^{-1}y - 1) + c$
2. $x e^{\tan^{-1}y} = \tan^{-1}y (e^{\tan^{-1}y} - 1) + c$
3. $e^{\tan^{-1}y} = \tan^{-1}y (e^{\tan^{-1}y} - 1) + c$
4. $x = e^{\tan^{-1}y} (\tan^{-1}y - 1) + c$

Options :

1. ✓ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

Question Number : 159 Question Id : 3922662719 Question Type : MCQ Option Shuffling : No

Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

$$\int_0^{\frac{\pi}{2}} \frac{x}{\sin x + \cos x} dx =$$

1. $\frac{\pi}{\sqrt{2}} \log(\sqrt{2} + 1)$
2. $\frac{\pi}{2} \log(\sqrt{2} + 1)$
3. $\frac{\pi}{2\sqrt{2}} \log(\sqrt{2} + 1)$
4. $\pi \log(\sqrt{2} + 1)$

Options :

1. ✗ 1
2. ✗ 2
3. ✓ 3
4. ✗ 4

Question Number : 160 Question Id : 3922662720 Question Type : MCQ Option Shuffling : No

Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Equation of a circle which touches $x^2 + y^2 - 4x + 6y - 12 = 0$ at $(-1, 1)$ internally with radius 2 is

1. $5x^2 + 5y^2 + 2x - 6y - 18 = 0$
2. $5x^2 + 5y^2 + 2x + 6y - 18 = 0$
3. $5x^2 + 5y^2 - 2x - 6y - 18 = 0$
4. $5x^2 + 5y^2 - 2x + 6y - 18 = 0$

Options :

1. ✖ 1
2. ✖ 2
3. ✖ 3
4. ✔ 4

Section 5

Section Id :	39226694
Section Number :	5
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	40
Number of Questions to be attempted :	40
Section Marks :	20
Maximum Instruction Time :	0
Sub-Section Number :	1
Sub-Section Id :	39226694
Question Shuffling Allowed :	Yes

Question Number : 161 Question Id : 3922662721 Question Type : MCQ Option Shuffling : No
 Display Question Number : Yes
 Correct Marks : 0.5 Wrong Marks : 0

With respect to the nature of mathematics, which among the following are correct?

- A. Mathematics has its own language.
 - B. There is only one solution to any mathematical problem
 - C. Mathematical concepts are abstract
- 1. A and B are correct
 - 2. A and C are correct
 - 3. B and C are correct
 - 4. A, B and C are correct

Options :

- 1. ✖ 1
- 2. ✔ 2
- 3. ✖ 3
- 4. ✖ 4

Question Number : 162 Question Id : 3922662722 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

Identify the correct statement from the following

- 1. Estimating quantities is not a mathematical skill
- 2. Mathematics can be equated with a list of standard formulae
- 3. Mathematics involves identification of patterns.
- 4. Mathematics can be equated with a set of mechanical procedures.

Options :

- 1. ✖ 1
- 2. ✖ 2
- 3. ✔ 3
- 4. ✖ 4

Question Number : 163 Question Id : 3922662723 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

One among the following tried to establish relationship between mathematics and philosophy. Identify him

1. Plato
2. Archimedes
3. Aristotle
4. Shoto Ku Tai Shi

Options :

1. ✓ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

Question Number : 164 Question Id : 3922662724 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

“Now - a - days with the advent of automation and information technology, there is need to have mathematically literate workforce that have ‘belief in the utility and value of mathematics’. These are the words of

1. Niss
2. Pollak
3. Smith
4. Bloom

Options :

1. ✗ 1
2. ✓ 2
3. ✗ 3
4. ✗ 4

Question Number : 165 Question Id : 3922662725 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

The characteristics of reasoning in mathematics are

- A. Simplicity
 - B. Originality of thinking
 - C. Certainty of results
 - D. Speed
1. A, C, D
 2. A, B, D
 3. A, B, C
 4. A, C, D

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 166 Question Id : 3922662726 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Characteristics of objectives are

- A. Predetermined
 - B. Written in full sentences
 - C. Contain content part only
 - D. Observable
1. A, B, C
 2. A, B, D
 3. B, C, D
 4. A, C, D

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

Question Number : 167 Question Id : 3922662727 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

Who prepared equations with first five prime numbers?

1. Srinivasa Ramanujan
2. D.R. Kaprekar
3. Martin Gardener
4. Eratostanis

Options :

1. ✓ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

Question Number : 168 Question Id : 3922662728 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

Name the mathematician who gave the value of π as

$$\frac{62,832}{20,000} = 3.1416 \text{ an approximate value}$$

1. Bhaskaracharya
2. Varaha Mihira
3. Brahma Gupta
4. Aryabhatta

Options :

1. ✗ 1
2. ✗ 2
3. ✗ 3
4. ✓ 4

Question Number : 169 Question Id : 3922662729 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

“The essence of mathematics resides in its freedom”. Who expressed this idea?

1. G.H. Hardy
2. Rene Descarte
3. Newton
4. Georg Cantor

Options :

1. ✖ 1
2. ✖ 2
3. ✖ 3
4. ✔ 4

Question Number : 170 Question Id : 3922662730 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

Identify which one is an instructional objective / specification.

1. To arrive at the properties of a triangle.
2. To demonstrate the properties of a parallelogram
3. The pupil recalls the formula for area of a circle
4. To explain the derivation of formula for volume of a sphere to the pupils

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 171 Question Id : 3922662731 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

Arrange the objectives of Revised Bloom's Taxonomy in the correct order.

- | | |
|---------------|-------------|
| A. Understand | B. Analyses |
| C. Create | D. Evaluate |
| E. Remember | F. Apply |
- A, B, C, D, E, F
 - E, A, F, B, D, C
 - F, E, D, C, B, A
 - A, C, E, B, D, F

Options :

- ☐ 1
- ☒ 2
- ☐ 3
- ☐ 4

Question Number : 172 Question Id : 3922662732 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The high lights of a mathematics textbook are

- It maintains numerous exercises to give rigorous practice
 - All concepts will be introduced through situations
 - It includes only solved examples
 - It must be thick and heavy
- A, D
 - A, B
 - B, C
 - A, C

Options :

- ☐ 1
- ☒ 2
- ☐ 3
- ☐ 4

Question Number : 173 Question Id : 3922662733 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

Identify the true statement among the following

1. Syllabus has many activities as compared to the curriculum
2. Curriculum and syllabus are equivalent components of education
3. Syllabus has a wide scope than curriculum
4. Curriculum is a broad term and syllabus is a part of curriculum

Options :

1. ✖ 1
2. ✖ 2
3. ✖ 3
4. ✔ 4

Question Number : 174 Question Id : 3922662734 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

“Access to quality mathematics education is the right of every child”. This sentence is taken from

1. National Policy on Education, 1986
2. Kothari Commission (1964-66)
3. National Curriculum Frame work, 2005
4. National Curriculum Frame work for School Education, 2000

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 175 Question Id : 3922662735 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

“One particular topic is spread over third class”. This type of arrangement of curriculum is known as

1. Topical method
2. Spiral method
3. Logical method
4. Concentric method

Options :

1. ✖ 1
2. ✖ 2
3. ✖ 3
4. ✔ 4

Question Number : 176 Question Id : 3922662736 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The characteristics of diagrams given in textbooks are

- I. Accurate
 - II. Appropriately named
 - III. To be given in small size
 - IV. To be given at appropriate places
1. I, II, IV
 2. I, II, III
 3. II, III, IV
 4. I, III, IV

Options :

1. ✔ 1
2. ✖ 2
3. ✖ 3
4. ✖ 4

Question Number : 177 Question Id : 3922662737 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

“Pupil will learn in details how a formula is discovered”. The method used for this is

1. Analytic
2. Synthesis
3. Deductive
4. Inductive

Options :

1. ✖ 1
2. ✖ 2
3. ✖ 3
4. ✔ 4

Question Number : 178 Question Id : 3922662738 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

“This method is suitable for a crammer”. Which method?

1. Inductive
2. Project
3. Synthetic
4. Analytic

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 179 Question Id : 3922662739 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

“This method can be used with only small classes”. Which method?

1. Inductive
2. Laboratory
3. Project
4. Analytic

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

Question Number : 180 Question Id : 3922662740 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

Which one is not a limitation of problem solving method?

1. Books are available which are written according to this method
2. It is not suitable for all the topics in mathematics
3. It is a steady method. The pupils progress is in a slow manner
4. It requires special preparation from the teacher.

Options :

1. ✔ 1
2. ✖ 2
3. ✖ 3
4. ✖ 4

Question Number : 181 Question Id : 3922662741 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

The next step of 'presentation' in a Herbartian lesson plan is

1. Generalization
2. Recapitulation
3. Association
4. Preparation

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 182 Question Id : 3922662742 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

Components of the existing lesson plan (from the academic year 2022-23) are

- I. Explicit Teaching (I do)
 - II. Group work (We do)
 - III. Independent work (You do)
 - IV. Check for understanding questions
 - V. Academic standards
1. I, II, III, IV
 2. I, II, IV, V
 3. I, III, IV, V
 4. II, III, IV, V

Options :

1. ✓ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

Question Number : 183 Question Id : 3922662743 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

“A teaching outline of the important points of a lesson arranged in the order in which they are to be presented may include objectives, points to be made, questions to ask, references to materials, assignments etc...” This definition for a lesson plan is given by

1. Good, C.V.
2. Herbart
3. Morrison
4. Samuel. P.

Options :

1. ✓ 1
2. ✗ 2
3. ✗ 3

4. ✖ 4

Question Number : 184 Question Id : 3922662744 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

The experiences that are arranged in between 'Demonstration' and 'Motion pictures, T.V.' in cone of experience (in an order) are

- I. Dramatized Experiences
 - II. Visual Symbols
 - III. Field Trips
 - IV. Exhibits
- 1. I, II
 - 2. II, III
 - 3. IV, I
 - 4. III, IV

Options :

- 1. ✖ 1
- 2. ✖ 2
- 3. ✖ 3
- 4. ✔ 4

Question Number : 185 Question Id : 3922662745 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

'Pictographs' come under the category of

- 1. 2-D Aids
- 2. 3-D Aids
- 3. Audio Aids
- 4. A.V. Aids

Options :

- 1. ✔ 1
- 2. ✖ 2
- 3. ✖ 3
- 4. ✖ 4

Question Number : 186 Question Id : 3922662746 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

Identify the 'graphic aid' from the following

1. Puppet
2. Cartoon
3. Slide
4. Filmstrip

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

Question Number : 187 Question Id : 3922662747 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

The characteristics of a teacher, who can organize 'equal ability grouping' for gifted children, are

- I. Flexibility
 - II. Sense of Humor
 - III. Controlling Students
1. I, II
 2. I, III
 3. I, II, III
 4. II, III

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 188 Question Id : 3922662748 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

Identify the correct statement/s

- I. Gifted children possess abstract thinking
- II. Gifted children are pessimists
- 1. Both I and II are correct
- 2. Both I and II are not correct
- 3. I is wrong and II is correct
- 4. I is correct and II is not correct

Options :

- 1. ✖ 1
- 2. ✖ 2
- 3. ✖ 3
- 4. ✔ 4

Question Number : 189 Question Id : 3922662749 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

One of the following provides opportunity for slow learners to practice the skills of arithmetic and algebra. Identify it.

- 1. Mathematics Crossword puzzles
- 2. Word Search
- 3. Cross Number puzzle
- 4. Mathematics Talent test

Options :

- 1. ✖ 1
- 2. ✖ 2
- 3. ✔ 3
- 4. ✖ 4

Question Number : 190 Question Id : 3922662750 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

Identify the correct statement/s

- I. In every learning process, oral work occupies the first place and written work last place.
- II. Variety of problems will make the drill boring
- 1. I is correct and II is not correct
- 2. I is not correct and II is correct
- 3. Both I and II are correct
- 4. Both I and II are not correct

Options :

- 1. ✓ 1
- 2. ✗ 2
- 3. ✗ 3
- 4. ✗ 4

Question Number : 191 Question Id : 3922662751 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

Identify the correct statement/s

- I. Through assignments, the teacher can recognize individual differences.
- II. Oral work develops shyness among the pupils
- 1. I and II are not correct
- 2. I is correct and II is not correct
- 3. I and II are correct
- 4. I is not correct and II is correct

Options :

- 1. ✗ 1
- 2. ✓ 2
- 3. ✗ 3
- 4. ✗ 4

Question Number : 192 Question Id : 3922662752 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

Identify the correct statement/s

- I. Legibility and proper posting of figures develop speed in mathematics among pupils.
 - II. To develop speed in mathematics among pupils time limit for assignments should not be insisted.
1. Both I and II are correct
 2. Both I and II are not correct
 3. I is correct and II is not correct
 4. II is correct and I is not correct

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

Question Number : 193 Question Id : 3922662753 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Evaluation is closely related to

1. Content
2. Evaluation strategies
3. Objectives
4. Process of Learning

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 194 Question Id : 3922662754 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Which type of evaluation has main purpose to give feed back to the students?

1. Formative Evaluation
2. Summative Evaluation
3. Diagnostic Evaluation
4. Prognostic Evaluation

Options :

1. ✓ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

Question Number : 195 Question Id : 3922662755 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

Extensive sampling of content is possible, in which of the following?

- I. Essay type items
 - II. Short Answer type items
 - III. Objective type items
1. I and II only
 2. I and II only
 3. III only
 4. II and III only

Options :

1. ✗ 1
2. ✗ 2
3. ✓ 3
4. ✗ 4

Question Number : 196 Question Id : 3922662756 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes
Correct Marks : 0.5 Wrong Marks : 0

Which of the following test items have low reliability?

1. Multiple choice type
2. Essay type
3. Fill in the blank type
4. Matching type

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

Question Number : 197 Question Id : 3922662757 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

“It will be useful to start mathsclub in the school Variety of activities can be organized in the mathematics club”. This recommendation was made by

1. National Policy on Education, 1986
2. Kothari Commission, 1964-66
3. National Curriculum Frame work, 2005
4. Programme of Action, 1992

Options :

1. ✔ 1
2. ✖ 2
3. ✖ 3
4. ✖ 4

Question Number : 198 Question Id : 3922662758 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Which of the following is not a characteristic of unit test?

1. If It covers a unit in a subject
2. It is a classroom test
3. It is an expert – made test
4. It provides a question wise analysis

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 199 Question Id : 3922662759 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

$$142857 \times 1 = 142857$$

$$142857 \times 2 = 285714$$

$$142857 \times 3 = 428571$$

$$142857 \times 4 = 571428$$

This is an example of

1. Structure
2. Pattern
3. Order
4. Sequence

Options :

1. ✖ 1
2. ✖ 2
3. ✖ 3
4. ✔ 4

Question Number : 200 Question Id : 3922662760 Question Type : MCQ Option Shuffling : No
Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

“The aesthetic rather than the logical is the dominant element in Mathematical creativity”. This is the opinion of

1. Herman Veyl
2. Tolstoy
3. Aristotle
4. Henri Poincare

Options :

1. ✖ 1
2. ✖ 2
3. ✖ 3
4. ✔ 4

