

AP DEECET 2025

Hall Ticket Number	
Participant Name	
Test Center Name	
Test Date	02/06/2025
Test Time	2:00 PM - 4:30 PM
Subject	Mathematics English

Section : **Part A**

Q.1 This is useful to make children hand writing good

- (1) Imposition writing
- (2) Copy book writing
- (3) Dictation
- (4) Habituate children to write from early years.

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

Question ID : **3734712002**
Chosen Option : **4**

Q.2 The schools established exclusively for the meritorious children resides in rural areas is

- (1) Model Schools
- (2) Sainik Schools
- (3) Navodaya Vidyalaya
- (4) Central Schools

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

Question ID : **3734712005**
Chosen Option : **3**

Q.3

Mentally retarded child is there in our catchment area. As a teacher you will join him in this school

- (1) Bhavitha Centre
- (2) Anganwadi Center
- (3) K.G.B.V
- (4) Pre Primary School

Ans  1. 1

 2. 2

 3. 3

 4. 4

Question ID : 3734712004
Chosen Option : 4

Q.4

Identify wrong statement related to achievement level of children

- (1) Every child has his own learning level.
- (2) Do not compare children.
- (3) Children cannot learn without motivation.
- (4) Children cannot learn if parents are illiterate.

Ans  1. 1

 2. 2

 3. 3

 4. 4

Question ID : 3734712003
Chosen Option : 4

Q.5

As a teacher you have to follow this to improve retention ability among students is

- (1) News reading
- (2) Giving home work
- (3) Practicing tables and poems
- (4) Drawing

Ans  1. 1

 2. 2

 3. 3

 4. 4

Question ID : 3734712001
Chosen Option : 1

Q.6

Printing Press was invented by

- (1) Johannes Gutenberg
- (2) George Claude
- (3) Alexander Fleming
- (4) Karl Benz

Ans  1. 1

 2. 2

 3. 3

 4. 4

Question ID : 3734712009
Chosen Option : 3

Q.7

Sardar Sarovar dam is located in this State

- (1) Tamilnadu
- (2) Uttarakhand
- (3) Bihar
- (4) Gujarat

Ans  1. 1

 2. 2

 3. 3

 4. 4

Question ID : 3734712008
Chosen Option : 1

Q.8

The game that is known as 'King of Games'

- (1) Cricket
- (2) Volley ball
- (3) Chess
- (4) Kabadi

Ans  1. 1

 2. 2

 3. 3

 4. 4

Question ID : 3734712007
Chosen Option : 3

Q.9

Person who invented Amrutanjana and also titled as Desabandhu, Desoddharaka was

- (1) Kasinathuni Nageswara Rao
- (2) Kandukuri Veeresalingam
- (3) Tanguturi Prakasam
- (4) Konda Venkatappayya

Ans  1. 1

 2. 2

 3. 3

 4. 4

Question ID : 3734712010

Chosen Option : 2

Q.10

Sahitya Academy winner for Children Literature in Telugu for the year 2023 is

- (1) Dasari Amarendra
- (2) Juluru Gouri Sankar
- (3) D. K. Chaduvula Babu
- (4) Johny Thakkedasila

Ans  1. 1

 2. 2

 3. 3

 4. 4

Question ID : 3734712006

Chosen Option : 3

Q.11

I visited Delhi last month.

The above sentence is in

- (1) the simple present tense
- (2) the past perfect tense
- (3) the simple past tense
- (4) the simple future tense

Ans  1. 1

 2. 2

 3. 3

 4. 4

Question ID : 3734712015

Chosen Option : 3

Q.12

The committee has _____ to make Jagadish captain of the team. The _____ is likely to please everyone.

Choose the pair of words that fits the blanks in the sentence above respectively.

- (1) decided - decision
- (2) decision - decided
- (3) decision - deciding
- (4) deciding - decide

Ans  1. 1

 2. 2

 3. 3

 4. 4

Question ID : 3734712012
Chosen Option : 1

Q.13

At the age of 15, Einstein felt so satisfied that he left the school for good.

Identify the meaning of the phrase 'for good'

- (1) permanently
- (2) for a short time
- (3) for his benefit
- (4) for a sorrowful reason

Ans  1. 1

 2. 2

 3. 3

 4. 4

Question ID : 3734712014
Chosen Option : 4

Q.14

I took out a small black tin box.

Identify the word that indicates size in the sentence above.

- (1) box
- (2) tin
- (3) black
- (4) small

Ans  1. 1

 2. 2

 3. 3

 4. 4

Question ID : 3734712013

Chosen Option : 4

Q.15

Identify the noun form from the following

- (1) Creative
- (2) Creatively
- (3) Creativety
- (4) Creativity

Ans  1. 1

 2. 2

 3. 3

 4. 4

Question ID : 3734712011

Chosen Option : 1

Q.16

‘మానవ చరిత్ర’ - ఈ సమాసానికి సరిపోయే విగ్రహవాక్యం

- (1) మానవుల వలన చరిత్ర
- (2) మానవుల చేత చరిత్ర
- (3) మానవుల కొరకు చరిత్ర
- (4) మానవుల యొక్క చరిత్ర

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

Question ID : 3734712020
Chosen Option : 4

Q.17

కింది వాటిలో నిత్య బహువచనం

- (1) ఇనుము
- (2) బియ్యము
- (3) కందులు
- (4) వరి

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

Question ID : 3734712019
Chosen Option : 2

Q.18

కింది వాటిలో అనునాసికాలు

- (1) శ, ష, స, హ
- (2) య, ర, ల, వ
- (3) క, ఖ, ఔ, చ
- (4) జ, ణ, న, మ

Ans

✗ 1. 1

✗ 2. 2

✗ 3. 3

✓ 4. 4

Question ID : 3734712016

Chosen Option : 2

Q.19

“పనిని ప్రారంభించు” అనే అర్థంలో ఉపయోగించు జాతీయం

- (1) మిన్నందుకొను
- (2) గజ్జెకట్టు
- (3) కాలక్షేపం
- (4) చరమాంకం

Ans

✗ 1. 1

✓ 2. 2

✗ 3. 3

✗ 4. 4

Question ID : 3734712017

Chosen Option : 2

Q.20

‘ఆదికవి’ అని వీరి బిరుదు

- (1) నన్నయ
- (2) తిక్కన
- (3) ఎర్రన
- (4) పోతన

Ans  1. 1

 2. 2

 3. 3

 4. 4

Question ID : 3734712018
Chosen Option : 2

Q.21

The blue umbrella was _____ for brother and sister.

Choose the best option that fit the blank.

- (1) anxious enough
- (2) serious enough
- (3) big enough
- (4) kind enough

Ans  1. 1

 2. 2

 3. 3

 4. 4

Question ID : 3734712025
Chosen Option : 2

Q.22 During a drought, the African Lungfish digs a pit and _____ itself in a capsule of slime and earth.

Choose the verb that fits the blank.

- (1) enclosing
- (2) enclose
- (3) enclosed
- (4) encloses

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

Question ID : 3734712027
Chosen Option : 3

Q.23 Mohan advises people what to do about jobs, personal problems etc. He works as a _____ in our college.
Choose the word that fits the blank meaningfully.

- (1) Counsellor
- (2) Journalist
- (3) Engineer
- (4) Navigator

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

Question ID : 3734712021
Chosen Option : 1

Q.24 My friend lost his chemistry book. Now he does'nt know _____ to do and _____ to look for it.

Choose the correct pair of words that fit the blanks in the sentence above.

- (1) what - which
- (2) where - what
- (3) what - where
- (4) when - when

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

Question ID : 3734712023
Chosen Option : 3

Q.25

Seema asked her, "how long have you lived here?"

Choose the indirect speech of the sentence above.

- (1) Seema told her how long had she lived there.
- (2) Seema asked her how long she had lived there.
- (3) Seema asked how long if she had lived there.
- (4) Seema asked him if she lived there.

Ans  1. 1

 2. 2

 3. 3

 4. 4

Question ID : 3734712028
Chosen Option : 2

Q.26

Read the following passage.

My austere father used to avoid all inessential comforts and luxuries. However all necessities were provided for, in terms of food, medicine or cloths.

The above passage says that

- (1) The speaker allowed his father to enjoy all inessential comforts and luxuries.
- (2) The speaker's father is fond of luxuries.
- (3) Food and medicine are inessential.
- (4) The speaker's father was a strict person.

Ans  1. 1

 2. 2

 3. 3

 4. 4

Question ID : 3734712030
Chosen Option : 2

Q.27

I understand your problems; _____ I can't help you.

Choose the linker that fits the blank in the sentence

- (1) neither
- (2) in spite of
- (3) similarly at the same time
- (4) however

Ans  1. 1

 2. 2

 3. 3

 4. 4

Question ID : 3734712029
Chosen Option : 3

Q.28

She fainted when she saw a tiger.

Choose the meaning of the word 'fainted'

- (1) treated kindly
- (2) found something
- (3) gained profit
- (4) lost consciousness

Ans  1. 1

 2. 2

 3. 3

 4. 4

Question ID : 3734712024
Chosen Option : 4

Q.29

Identify the noun form from the following

- (1) dense
- (2) stable
- (3) ability
- (4) pleasant

Ans  1. 1

 2. 2

 3. 3

 4. 4

Question ID : 3734712026
Chosen Option : 1

Q.30

I wish I _____ a cup of milk.

Choose the verb that fits the blank

- (1) have
- (2) have to
- (3) have been
- (4) had

Ans  1. 1

 2. 2

 3. 3

 4. 4

Question ID : 3734712022
Chosen Option : 1

Q.31 The ratio of the sides of a triangular park is 5 : 8 : 12. It's perimeter is 250m. What is its area.

- (1) $375\sqrt{5} \text{ m}^2$
- (2) $375\sqrt{3} \text{ m}^2$
- (3) $375\sqrt{15} \text{ m}^2$
- (4) 375 m^2

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

Question ID : 3734712038
Chosen Option : 1

Q.32 If $A = (2^2) \times 3$, $B = (2^2)^3$ then, which of the following is TRUE.

- (1) $A > B$
- (2) $A < B$
- (3) $A = B$
- (4) It cannot be decided

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

Question ID : 3734712040
Chosen Option : 4

Q.33 The heights of 10 boys were measured in cm and the results are as follows:

135, 150, 139, 128, 151, 132, 146, 149, 143, 141.
How many boys have heights more than the median height?

- (1) 2
- (2) 3
- (3) 4
- (4) 5

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

Question ID : 3734712034
Chosen Option : 4

Q.34

Raju made 42 runs in 6 overs. Mahesh made 63 runs in 7 overs.

Which of the following is TRUE statement.

- (1) Raju made more runs per over
- (2) Mahesh made more runs per over
- (3) Both made same number of runs per over
- (4) It can't be decided who made more runs per over

Ans  1. 1

 2. 2

 3. 3

 4. 4

Question ID : 3734712039
Chosen Option : 2

Q.35

The false statements among the following are

- i) Every whole number is a natural number.
- ii) Every whole number is an integer.
- iii) Every whole number is a rational number.

- (1) (i) & (ii)
- (2) (ii) & (iii)
- (3) (i) & (iii)
- (4) (i), (ii) & (iii)

Ans  1. 1

 2. 2

 3. 3

 4. 4

Question ID : 3734712031
Chosen Option : 2

Q.36 Two concentric circles drawn with radii of 5 cm and 4 cm respectively.

What is the length of the chord of the larger circle which touches the smaller circle?

- (1) 5 cm
- (2) 6 cm
- (3) 8 cm
- (4) 10 cm

Ans ☒ 1. 1

☒ 2. 2

☒ 3. 3

☒ 4. 4

Question ID : 3734712037
Chosen Option : 1

Q.37 The angle that lies between $\frac{1}{4}$ and $\frac{1}{2}$ of a revolution

- (1) Straight angle
- (2) Acute angle
- (3) Obtuse angle
- (4) Reflex angle

Ans ☒ 1. 1

☒ 2. 2

☒ 3. 3

☒ 4. 4

Question ID : 3734712032
Chosen Option : 4

Q.38 A cone with a height of 16 cm and radius of base 4 cm is made up of modeling clay. A boy reshapes it in the form of a sphere. What is the radius of sphere?

- (1) 4 cm
- (2) 6 cm
- (3) 5 cm
- (4) 7 cm

Ans ☒ 1. 1

☒ 2. 2

☒ 3. 3

☒ 4. 4

Question ID : 3734712033
Chosen Option : 1

Q.39

Factorization of $4b - 6ab - 6 + 9a$

- (1) $(2b - 3)(2 - 3a)$
- (2) $(2b - 3)(2 + 3a)$
- (3) $(3 - 2b)(2 + 3a)$
- (4) $(2b + 3)(2 - 3a)$

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

Question ID : 3734712035

Chosen Option : 1

Q.40

a and b are any two rational numbers. Then which of the following is a FALSE statement.

- (1) $a + b$ is a rational number
- (2) $a - b$ is a rational number
- (3) $a \times b$ is a rational number
- (4) $\frac{a}{b}$ is a rational number

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

Question ID : 3734712036

Chosen Option : 4

Q.41

Washing Soda formula

- (1) $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$
- (2) Na_2CO_3
- (3) NaHCO_3
- (4) $\text{Na}_2\text{CO}_3 \cdot 10\text{H}_2\text{O}$

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

Question ID : 3734712042

Chosen Option : 2

Q.42

'Loop of Henle' is a part of this organ

- (1) Liver
- (2) Kidney
- (3) Heart
- (4) Lungs

Ans

☒ 1. 1

☒ 2. 2

☒ 3. 3

☒ 4. 4

Question ID : 3734712041

Chosen Option : 4

Q.43

The range of temperature in clinical thermometer is

- (1) 27°C - 37°C
- (2) 35 °C - 100°C
- (3) 35°C - 42°C
- (4) 10°C - 100°C

Ans

☒ 1. 1

☒ 2. 2

☒ 3. 3

☒ 4. 4

Question ID : 3734712045

Chosen Option : 2

Q.44

Theory of natural selection was proposed by

- (1) Lamarck
- (2) Charles Darwin
- (3) Weismann
- (4) Mendal

Ans

☒ 1. 1

☒ 2. 2

☒ 3. 3

☒ 4. 4

Question ID : 3734712044

Chosen Option : 2

Q.45

Deuterium is the isotope of this element

- (1) Oxygen
- (2) Sodium
- (3) Helium
- (4) Hydrogen

Ans  1. 1

 2. 2

 3. 3

 4. 4

Question ID : 3734712047
Chosen Option : 3

Q.46

SI units of Potential Difference is

- (1) ampere
- (2) coulomb
- (3) joule
- (4) volt

Ans  1. 1

 2. 2

 3. 3

 4. 4

Question ID : 3734712046
Chosen Option : 1

Q.47

Which of the following is not related to 'bone'

- (1) adipose
- (2) ligament
- (3) tendon
- (4) cartilage

Ans  1. 1

 2. 2

 3. 3

 4. 4

Question ID : 3734712048
Chosen Option : 2

Q.48 Bakelite and Melamine are the examples of

- (1) Eco plastics
- (2) Thermo plastics
- (3) Bio degradable plastics
- (4) Thermosetting plastics

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

Question ID : 3734712049
Chosen Option : 2

Q.49 Major part of gas in air is

- (1) Nitrogen
- (2) Oxygen
- (3) Carbon-di-Oxide
- (4) Neon

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

Question ID : 3734712043
Chosen Option : 2

Q.50 Bacterial disease among the following is

- (1) Polio
- (2) Typhoid
- (3) Hepatitis
- (4) Measles

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

Question ID : 3734712050
Chosen Option : 3

Q.51

The term refers to the existence of more than one level of government in the country is

- (1) Parliamentary form of governance
- (2) Federalism
- (3) Secularism
- (4) Socialism

Ans  1. 1

 2. 2

 3. 3

 4. 4

Question ID : 3734712055

Chosen Option : 4

Q.52

Delhi Sultan who changed the capital from Delhi to Devagiri was

- (1) Qutbuddin Aybak
- (2) Muhammad Bin Tughlaq
- (3) Kizar Khan
- (4) Ibrahim Lodi

Ans  1. 1

 2. 2

 3. 3

 4. 4

Question ID : 3734712053

Chosen Option : 2

Q.53

India is located in this hemisphere

- (1) Northern
- (2) Southern
- (3) Eastern
- (4) Western

Ans  1. 1

 2. 2

 3. 3

 4. 4

Question ID : 3734712052

Chosen Option : 2

Q.54

River Godavari originates at

- (1) Triyambak plateau
- (2) Mahabaleswar
- (3) Amarkantak
- (4) Sihawa

Ans  1. 1

 2. 2

 3. 3

 4. 4

Question ID : 3734712059
Chosen Option : 2

Q.55

“ Desa bhashalandu Telugu lessa “ stated by

- (1) Sri Krishna Devaraya
- (2) Achyutharaya
- (3) Narasimharaya
- (4) Ramaraya

Ans  1. 1

 2. 2

 3. 3

 4. 4

Question ID : 3734712054
Chosen Option : 1

Q.56

The fundamental right that prevents the employment of children under 14 years of age.

- (1) Right to equality
- (2) Right to freedom
- (3) Right against exploitation
- (4) Right to Constitutional remedies

Ans  1. 1

 2. 2

 3. 3

 4. 4

Question ID : 3734712056
Chosen Option : 2

Q.57

This is not a neighbouring country of India.

- (1) China
- (2) Nepal
- (3) Pakistan
- (4) Thailand

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

Question ID : 3734712057
Chosen Option : 2

Q.58

The planet known as the 'Earth's twin' is

- (1) Jupiter
- (2) Saturn
- (3) Venus
- (4) Mars

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

Question ID : 3734712051
Chosen Option : 1

Q.59

Who among the following was the dictator of Germany

- (1) Mussolini
- (2) Hitler
- (3) Stalin
- (4) Ho Chi Minh

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

Question ID : 3734712060
Chosen Option : 2

Q.60

One of the following is not a fixed capital

- (1) tools
- (2) money in hand
- (3) machines
- (4) buildings

Ans  1. 1

 2. 2

 3. 3

 4. 4

Question ID : 3734712058
Chosen Option : 2

Section : Part B

Q.61

If $\bar{a} \cdot \bar{b} = \bar{a} \cdot \bar{c}$ and $\bar{a} \times \bar{b} = \bar{a} \times \bar{c}$, $\bar{a} \neq \bar{o}$ then $\bar{b} = \underline{\hspace{1cm}}$

- (1) $\bar{a}$
- (2) $\bar{c}$
- (3) $\bar{o}$
- (4) $-\bar{b}$

Ans  1. 1

 2. 2

 3. 3

 4. 4

Question ID : 3734712065
Chosen Option : 2

Q.62

If the angle between the asymptotes of a hyperbola is 30° then its Eccentricity is

- (1) $\sqrt{2}$
- (2) $\sqrt{6} - \sqrt{2}$
- (3) $\sqrt{6} + \sqrt{2}$
- (4) $\sqrt{6}$

Ans  1. 1

 2. 2

 3. 3

 4. 4

Question ID : 3734712076
Chosen Option : 2

Q.63

If α, β, γ are the roots of $4x^3 - 6x^2 + 7x + 3 = 0$. Then the value of $\alpha\beta + \beta\gamma + \gamma\alpha$

- (1) $\frac{3}{2}$
- (2) $\frac{3}{4}$
- (3) $\frac{7}{4}$
- (4) 0

Ans  1. 1

 2. 2

 3. 3

 4. 4

Question ID : 3734712094
Chosen Option : 1

Q.64

The variance of 20 observations is 5. If each of the observation is multiplied by 2, then the variance of resulting observations is

- (1) 20
- (2) 10
- (3) 100
- (4) 50

Ans  1. 1

 2. 2

 3. 3

 4. 4

Question ID : 3734712100
Chosen Option : 2

Q.65

If ω is complex cube root (not real) of 1.

Then the value of $\begin{vmatrix} 1 & \omega & \omega^2 \\ \omega & \omega^2 & 1 \\ \omega^2 & 1 & \omega \end{vmatrix}$

- (1) 0
- (2) 1
- (3) -1
- (4) 3

Ans  1. 1

 2. 2

 3. 3

 4. 4

Question ID : 3734712062
Chosen Option : 3

Q.66

If $f(x) = \text{Log}(\sec x + \tan x)$ then the value of $f'(x)$

- (1) $\sec x$
- (2) $\tan x$
- (3) $\sec x + \tan x$
- (4) $\sec x - \tan x$

Ans  1. 1

 2. 2

 3. 3

 4. 4

Question ID : 3734712089
Chosen Option : 4

Q.67

If A and B are independent events with $P(A) = 0.2$, $P(B) = 0.5$ Then

$P(A \cap B) = \underline{\hspace{1cm}}$

- (1) 0.2
- (2) 0.1
- (3) 0.5
- (4) 0.6

Ans  1. 1

 2. 2

 3. 3

 4. 4

Question ID : 3734712098
Chosen Option : 2

Q.68

If $\tan\left(\frac{C-A}{2}\right) = k \cot \frac{B}{2}$ Then K =

(1) $\frac{c+a}{c-a}$

(2) $\frac{c-a}{c+a}$

(3) $\frac{a+c}{a-c}$

(4) 1

Ans  1. 1

 2. 2

 3. 3

 4. 4

Question ID : 3734712070
Chosen Option : 2

Q.69

The ratio in which the X – axis divide the line segment $\overline{AB}$ joining A(2, -3) and B(3, -6)

(1) 2 : 1

(2) -1 : 2

(3) -3 : 2

(4) 2 : 3

Ans  1. 1

 2. 2

 3. 3

 4. 4

Question ID : 3734712082
Chosen Option : 4

Q.70

The General Solution of $\frac{dy}{dx} = \frac{2y}{x}$

- (1) $x^2 = cy$
- (2) $x = cy^2$
- (3) $y = cx^2$
- (4) $x = cy$

Ans  1. 1

 2. 2

 3. 3

 4. 4

Question ID : 3734712080
Chosen Option : 4

Q.71

The slope of tangent to the curve $y = 5x^2$ at $(-1, 5)$

- (1) 0
- (2) 1
- (3) -10
- (4) 10

Ans  1. 1

 2. 2

 3. 3

 4. 4

Question ID : 3734712090
Chosen Option : 3

Q.72

Equation of the director circle of the Ellipse $\frac{x^2}{a^2} + \frac{y^2}{b^2} = 1$ is

- (1) $x^2 + y^2 = a^2$
- (2) $x^2 + y^2 = b^2$
- (3) $x^2 + y^2 = a^2 + b^2$
- (4) $x^2 + y^2 = 1$

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

Question ID : 3734712075
Chosen Option : 3

Q.73

$$\int \frac{\sin^4 x}{\cos^6 x} dx \text{ on } \mathbb{R}$$

- (1) $\tan^5 x + c$
- (2) $\sec^5 x + c$
- (3) $\frac{1}{5} \tan^5 x + c$
- (4) $\frac{1}{5} \sin^5 x + c$

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

Question ID : 3734712077
Chosen Option : 3

Q.74

The domain of real valued function $f(x)=\sqrt{9-x^2}$ is

- (1) $[-3, 3]$
- (2) $[0, 3]$
- (3) $[-3, 0]$
- (4) $[3, 0]$

Ans  1. 1

 2. 2

 3. 3

 4. 4

Question ID : 3734712061
Chosen Option : 4

Q.75

The centroid of the tetrahedron whose vertices are $(2, 3, -4)$, $(-3, 3, -2)$, $(-1, 4, 2)$, $(3, 5, 1)$ is

- (1) $(-1, 15, 3)$
- (2) $\left(\frac{-1}{4}, \frac{15}{4}, \frac{3}{4}\right)$
- (3) $\left(\frac{1}{4}, \frac{15}{4}, \frac{-3}{4}\right)$
- (4) $(1, 15, 3)$

Ans  1. 1

 2. 2

 3. 3

 4. 4

Question ID : 3734712085
Chosen Option : 2

Q.76

If a line makes angles α, β, γ with the positive directions of X, Y, Z - axes, then the value of $\sin^2 \alpha + \sin^2 \beta + \sin^2 \gamma$ is

- (1) 1
- (2) 0
- (3) 2
- (4) -1

Ans

- ☐ 1. 1
- ☐ 2. 2
- ☒ 3. 3
- ☐ 4. 4

Question ID : 3734712086
Chosen Option : 1

Q.77

The largest binomial co-efficient in the expansion of $(1+x)^{24}$

- (1) ${}^{24}C_{11}$
- (2) ${}^{24}C_{12}$
- (3) ${}^{24}C_{13}$
- (4) ${}^{24}C_{10}$

Ans

- ☐ 1. 1
- ☒ 2. 2
- ☐ 3. 3
- ☐ 4. 4

Question ID : 3734712096
Chosen Option : 2

Q.78

If the line $2y = 5x + K$ is a tangent to the parabola $y^2 = 6x$.

Then the value of $K =$

- (1) $\frac{1}{2}$
- (2) 3
- (3) $\frac{5}{6}$
- (4) $\frac{6}{5}$

Ans  1. 1

 2. 2

 3. 3

 4. 4

Question ID : 3734712074
Chosen Option : 4

Q.79

The equation $ax^2 + 2hxy + by^2 = 0$ represent a pair of straight lines.

If θ is angle between the lines then $\cos \theta =$

- (1) $\frac{|a-b|}{\sqrt{(a-b)^2 + 4h^2}}$
- (2) $\frac{|a+b|}{\sqrt{(a-b)^2 + 4h^2}}$
- (3) $\frac{2\sqrt{h^2 - ab}}{|a+b|}$
- (4) $\frac{|a+b|}{\sqrt{(a+b)^2 + 4h^2}}$

Ans  1. 1

 2. 2

 3. 3

 4. 4

Question ID : 3734712084
Chosen Option : 2

Q.80

Principal solutions of $\tan^2 \theta = 3$

- (1) $\pm \pi/3$
- (2) $\pm \pi/4$
- (3) $\pm \pi/6$
- (4) $\pm \pi/2$

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

Question ID : 3734712067
 Chosen Option : 3

Q.81

The normal form of the plane $x + 2y - 3z - 6 = 0$

- (1) $\frac{x}{6} + \frac{y}{3} - \frac{z}{2} = 1$
- (2) $\frac{x}{\sqrt{14}} + \frac{2y}{\sqrt{14}} - \frac{3z}{\sqrt{14}} = 1$
- (3) $\frac{x}{\sqrt{14}} - \frac{2y}{\sqrt{14}} + \frac{3z}{\sqrt{14}} = \frac{6}{\sqrt{14}}$
- (4) $\frac{x}{\sqrt{14}} + \frac{2y}{\sqrt{14}} - \frac{3z}{\sqrt{14}} = \frac{6}{\sqrt{14}}$

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

Question ID : 3734712087
 Chosen Option : 4

Q.82

If $A = \begin{bmatrix} -1 & 2 & 3 \\ 2 & 5 & 6 \\ 3 & x & 7 \end{bmatrix}$ is a symmetric matrix, Then the value of x is

- (1) 2
- (2) 7
- (3) -1
- (4) 6

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

Question ID : 3734712063
Chosen Option : 1

Q.83

For any $x \in R$, $\tan^{-1}x + \cot^{-1}x$

- (1) 0
- (2) $\pi/2$
- (3) $\pi/3$
- (4) $\pi/4$

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

Question ID : 3734712068
Chosen Option : 4

Q.84

The complex conjugate of $(3 + 4i)(2 - 3i)$

- (1) $18 + i$
- (2) $18 - i$
- (3) $-18 + i$
- (4) $-18 - i$

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

Question ID : 3734712091
Chosen Option : 2

Q.85

$$\int \frac{dx}{x^2 - 81} \text{ on } \mathbb{R}$$

- (1) $\text{Log} \left| \frac{x-9}{x+9} \right| + c$
- (2) $\text{Log} \left| \frac{x+9}{x-9} \right| + c$
- (3) $\text{Log} |x^2 - 81| + c$
- (4) $\frac{1}{18} \text{Log} \left| \frac{x-9}{x+9} \right| + c$

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

Question ID : 3734712078
Chosen Option : 2

Q.86

Value of $\sec (2100^\circ)$

- (1) 0
- (2) 2
- (3) 1
- (4) $\frac{1}{2}$

Ans  1. 1

 2. 2

 3. 3

 4. 4

Question ID : 3734712066
Chosen Option : 3

Q.87

The angle between the circles $x^2 + y^2 - 12x - 6y + 41 = 0$ and $x^2 + y^2 + 4x + 6y - 59 = 0$ is

- (1) 90°
- (2) 45°
- (3) 60°
- (4) 30°

Ans  1. 1

 2. 2

 3. 3

 4. 4

Question ID : 3734712073
Chosen Option : 2

Q.88

The equation of locus of a point equidistant from A (2, 0) and the Y – axis

(1) $x^2 - 4x + 4 = 0$

(2) $y^2 - 4x + 4 = 0$

(3) $x^2 + y^2 = 4$

(4) $x^2 - y^2 = 4$

Ans  1. 1

 2. 2

 3. 3

 4. 4

Question ID : 3734712081
Chosen Option : 3

Q.89

$$\lim_{x \rightarrow 3} \frac{e^x - e^3}{x - 3}$$

(1) 1

(2) 0

(3) e^3

(4) e^x

Ans  1. 1

 2. 2

 3. 3

 4. 4

Question ID : 3734712088
Chosen Option : 4

Q.90

If $\frac{5x+1}{(x+2)(x-1)} = \frac{A}{x+2} + \frac{2}{x-1}$, then the value of A is

- (1) 3
- (2) 0
- (3) -3
- (4) 1

Ans  1. 1

 2. 2

 3. 3

 4. 4

Question ID : 3734712097
Chosen Option : 1

Q.91

A poisson variable satisfies $P(X = 1) = P(X = 2)$ then $P(X = 5) =$

- (1) $\frac{e^{-2} 2^4}{2!}$
- (2) $\frac{e^{-2} 2^3}{3!}$
- (3) $\frac{e^{-2} 2^5}{5!}$
- (4) $\frac{e^{-5} 2^5}{5!}$

Ans  1. 1

 2. 2

 3. 3

 4. 4

Question ID : 3734712099
Chosen Option : 3

Q.92

If $1, \omega, \omega^2$ are the cube root of unity then the value of $(1 - \omega + \omega^2)^3$

- (1) 0
- (2) 1
- (3) -8
- (4) 8

Ans  1. 1

 2. 2

 3. 3

 4. 4

Question ID : 3734712092
Chosen Option : 3

Q.93

The equation of circle with Centre $(-1, 2)$ and radius 5 is

- (1) $(x-1)^2 + (y-2)^2 = 5^2$
- (2) $(x+1)^2 + (y+2)^2 = 5^2$
- (3) $(x+1)^2 + (y-2)^2 = 5^2$
- (4) $(x-1)^2 + (y+2)^2 = 5^2$

Ans  1. 1

 2. 2

 3. 3

 4. 4

Question ID : 3734712071
Chosen Option : 4

Q.94

The area under the curve $f(x) = \cos x$ in $[0, 2\pi]$ is

- (1) 1
- (2) $\frac{1}{2}$
- (3) 2
- (4) 4

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

Question ID : 3734712079
Chosen Option : 1

Q.95

The number of diagonal of polygon with 12 sides

- (1) 36
- (2) 40
- (3) 54
- (4) 24

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

Question ID : 3734712095
Chosen Option : 4

Q.96

If $x^2 - 6x + 5 = 0$ and $x^2 - 12x + P = 0$ have a common root then $P =$

- (1) 11 or 35
- (2) 2 or 3
- (3) 10 or 2
- (4) 3 or 5

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

Question ID : 3734712093
Chosen Option : 2

Q.97

If $\vec{a} = 2\vec{i} + 5\vec{j} + \vec{k}$ and $\vec{b} = 4\vec{i} + m\vec{j} + n\vec{k}$ are collinear vectors, then the value of 'm'

- (1) 2
- (2) 6
- (3) 10
- (4) 5

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

Question ID : 3734712064
Chosen Option : 4

Q.98

The Polar of (1, 2) with respect to $x^2 + y^2 = 7$ is

- (1) $x + 2y - 7 = 0$
- (2) $x - 2y - 7 = 0$
- (3) $x + 2y + 7 = 0$
- (4) $x + y + 7 = 0$

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

Question ID : 3734712072
Chosen Option : 1

Q.99

If the straight lines $6x - 10y + 3 = 0$ and $Kx - 5y + 8 = 0$ are parallel then the value of K is

- (1) 6
- (2) 3
- (3) 2
- (4) 1

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

Question ID : 3734712083
Chosen Option : 1

Q.100

$$\tanh (x+y)$$

(1) $\frac{\tanh x + \tanh y}{1 + \tanh x \tanh y}$

(2) $\frac{\tanh x + \tanh y}{1 - \tanh x \tanh y}$

(3) $\tanh x + \tanh y$

(4) $\frac{\tanh x + \tanh y}{\tanh x - \tanh y}$

Ans  1. 1

 2. 2

 3. 3

 4. 4

Question ID : 3734712069
Chosen Option : 2