Guru Gobind Singh Indraprastha University

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Participant ID	
Participant Name	
Test Center Name	Webinfotron Technologies Pvt. Ltd.
Test Date	24/06/2022
Test Time	5:00 PM - 7:30 PM
Subject	BA(Economics)

Section : **General English**

Q.1

Read the sentence below and identify the segment which contains the grammatical error.

How can India (A)/become the (B)/ most supreme power (C)/ without addressing the economic inequalities?(D)

a. A
b. B
c. C
d. D

Ans
✗ A. (a)
✗ B. (b)
✓ C. (c)
✗ D. (d)

Question ID : **61477217568**
Status : **Answered**
Chosen Option : **C**

Q.2

Select the word or the phrase which is closest to the opposite in meaning of the underlined word or phrase in the following sentence.

Ashok is an imperious personality.

a. characterless
b. pious
c. arrogant
d. submissive

Ans
✗ A. (a)
✗ B. (b)
✗ C. (c)
✓ D. (d)

Question ID : **61477217578**
Status : **Answered**
Chosen Option : **D**

Q.3

Choose the right word to fill in the blank.

He _____ his childhood friend after two decades.

a. ran into
b. ran in
c. run in
d. run on

Ans
✔ A. (a)
✘ B. (b)
✘ C. (c)
✘ D. (d)

Question ID : **61477217582**
Status : **Answered**
Chosen Option : **A**

Q.4

Choose the right word to fill in the blank.

Covid 19 is a _____ disease

a. lethal
b. incurable
c. contagious
d. ferocious

Ans
✘ A. (a)
✘ B. (b)
✔ C. (c)
✘ D. (d)

Question ID : **61477217581**
Status : **Answered**
Chosen Option : **C**

Q.5

Choose the most appropriate word to fill in the blank from the options given below.

_____ is a witty, clever retort.

a. Sarcasm
b. Repartee
c. Platitude
d. Mocking

Ans
✘ A. (a)
✔ B. (b)
✘ C. (c)
✘ D. (d)

Question ID : **61477217585**
Status : **Answered**
Chosen Option : **A**

Q.6

Choose is the correct form of the sentence given below from the options given.

For what are you waiting?

a. You are waiting for what?
b. What are you waiting for?
c. What is it for you are waiting?
d. Your wait is for what?

Ans
✗ A. (a)
✓ B. (b)
✗ C. (c)
✗ D. (d)

Question ID : **61477217569**
Status : **Answered**
Chosen Option : **B**

Q.7

Fill in the blank with an appropriate word chosen from the option given.

Shashi donates money to the needy to relieve them _____their sufferings and poverty.

a. from
b. of
c. off
d. for

Ans
✗ A. (a)
✓ B. (b)
✗ C. (c)
✗ D. (d)

Question ID : **61477217572**
Status : **Answered**
Chosen Option : **A**

Q.8

_____ is a person who has great love for and understanding of what is beautiful in nature, art etc.

a. Naturalist
b. Aesthete
c. Ascetic
d. Artist

Ans
✗ A. (a)
✓ B. (b)
✗ C. (c)
✗ D. (d)

Question ID : **61477217584**
Status : **Marked For Review**
Chosen Option : **D**

Q.9 Choose the word nearest in meaning to underlined part of the sentence below.

It is exasperating to listen to Manohar talking about music when it is obvious that he has no understanding of it.

a. Amusing
b. Irritating
c. Disappointing
d. Boring

Ans
✗ A. (a)
✓ B. (b)
✗ C. (c)
✗ D. (d)

Question ID : **61477217577**
Status : **Answered**
Chosen Option : **B**

Q.10 Identify the meaning of the idiomatic expression underlined in the following sentence.

Rohan bade defiance to his father's advice.

a. paid attention
b. carefully followed
c. strongly argued against
d. simply ignored

Ans
✗ A. (a)
✗ B. (b)
✗ C. (c)
✓ D. (d)

Question ID : **61477217574**
Status : **Answered**
Chosen Option : **C**

Q.11 Read the sentence below and identify the segment which contains grammatical error.

Mostly the (A) newly recruited officers (B)/ have no experience (C)/ in the public sector.(D)

a. A
b. B
c. C
d. D

Ans
✓ A. (a)
✗ B. (b)
✗ C. (c)
✗ D. (d)

Question ID : **61477217566**
Status : **Answered**
Chosen Option : **A**

Q.12

Identify the meaning of the idiomatic expression underlined in the following sentence.

The gunman fired <u>at random</u> thus killing many innocent bystanders.

a. aiming at rioters
b. into the target group
c. aimlessly
d. carefully

Ans
✗ A. (a)
✗ B. (b)
✓ C. (c)
✗ D. (d)

Question ID : **61477217573**
Status : **Answered**
Chosen Option : **C**

Q.13

What is the meaning of the idiomatic expression 'come home to'?

a. Return back to one's house
b. Take rest after hectic work
c. Be at peace
d. None of the above

Ans
✗ A. (a)
✗ B. (b)
✗ C. (c)
✓ D. (d)

Question ID : **61477217583**
Status : **Answered**
Chosen Option : **B**

Q.14

Fill in the blank with an appropriate word chosen from the option given.

Many trees in the city were blown _____ by the strong winds.

a. over
b. up
c. off
d. down

Ans
✗ A. (a)
✗ B. (b)
✗ C. (c)
✓ D. (d)

Question ID : **61477217571**
Status : **Answered**
Chosen Option : **C**

Q.15

Select the word or the phrase which is closest to the opposite in meaning of the underlined word or phrase in the following sentence.

We could see the signs of senility in her.

a. virility
b. laziness
c. maturity
d. intelligence

Ans
✔ A. (a)
✘ B. (b)
✘ C. (c)
✘ D. (d)

Question ID : **61477217579**
Status : **Answered**
Chosen Option : **B**

Q.16

Suraj had barely(A)/ nothing to sustain (B)/ when he lost (C)/ his job last year.(D)

a. A
b. B
c. C
d. D

Ans
✘ A. (a)
✔ B. (b)
✘ C. (c)
✘ D. (d)

Question ID : **61477217575**
Status : **Answered**
Chosen Option : **A**

Q.17

Choose the word nearest in meaning to underlined part of the sentence below.

Some stand-up comedians are known for their trenchant style.

a. Sharp
b. Critical
c. Aggressive
d. Incisive

Ans
✘ A. (a)
✘ B. (b)
✘ C. (c)
✔ D. (d)

Question ID : **61477217576**
Status : **Answered**
Chosen Option : **D**

Q.18

Read the sentence below and identify the segment which contains the grammatical error.

The Dean had extensively discussions (A)/ with the students and (B)/ obtained their feedback (C) / regarding the student services.(D)

a. We had extensively discussions
b. with the participants and
c. obtained their feedback
d. regarding our new services

Ans
✔ A. (a)
✘ B. (b)
✘ C. (c)
✘ D. (d)

Question ID : **61477217567**
Status : **Answered**
Chosen Option : **A**

Q.19

Choose the word nearest in meaning to underlined part of the sentence below.

The receptionist looked very grumpy due to which visitors were hesitant to approach her.

a. much occupied
b. beautiful
c. ignorant
d. irritable

Ans
✘ A. (a)
✘ B. (b)
✘ C. (c)
✔ D. (d)

Question ID : **61477217580**
Status : **Answered**
Chosen Option : **D**

Q.20

Read the sentence below and identify the segment which contains grammatical error.

The highway robbers (A)/ robbed them all (B)/ of their belongings (C)/.No error (D)

a. A
b. B
c. C
d. D

Ans
✘ A. (a)
✘ B. (b)
✔ C. (c)
✘ D. (d)

Question ID : **61477217570**
Status : **Answered**
Chosen Option : **D**

Section : **Economics and Statistics**

Q.1

For a symmetrical distribution Q1, Q3 are 25 and 45 respectively. The value of median will be:

a. 20
b. 25
c. 35
d. None of these

Ans
✗ A. (a)
✗ B. (b)
✗ C. (c)
✓ D. (d)

Question ID : **61477217612**
Status : **Answered**
Chosen Option : **C**

Q.2

Sum of the deviations taken from _____ value is always zero.

a. Median
b. Mode
c. Mean
d. Standard deviation

Ans
✗ A. (a)
✗ B. (b)
✓ C. (c)
✗ D. (d)

Question ID : **61477217622**
Status : **Answered**
Chosen Option : **A**

Q.3

The price elasticity of demand is equal to one for a demand curve, which is:

a. Horizontal Line
b. Vertical Line
c. Rectangular Hyperbola
d. Downward moving line

Ans
✗ A. (a)
✗ B. (b)
✓ C. (c)
✗ D. (d)

Question ID : **61477217604**
Status : **Answered**
Chosen Option : **A**

Q.4

Which of the following is not a measure of dispersion?

a. Range

b. Quartile Deviation

c. Lorenz curve

d. Coefficient of skewness

Ans

✗ A. (a)

✗ B. (b)

✗ C. (c)

✓ D. (d)

Question ID : **61477217619**
Status : **Answered**
Chosen Option : **C**

Q.5

Fiscal deficit is identified as:

a. Budgetary deficit + government market borrowings and liabilities

b. Total Outlay – Income Received

c. Budget deficit – public borrowing

d. None of the above

Ans

✓ A. (a)

✗ B. (b)

✗ C. (c)

✗ D. (d)

Question ID : **61477217605**
Status : **Answered**
Chosen Option : **A**

Q.6

The mean of the squared deviations of all the observations in a data is equal to the –

a. Standard deviation

b. Median

c. Mode

d. Variance

Ans

✗ A. (a)

✗ B. (b)

✗ C. (c)

✓ D. (d)

Question ID : **61477217613**
Status : **Answered**
Chosen Option : **D**

Q.7

A non-measurable characteristic is known as:

a. Discrete variable

b. Continuous variable

c. Attribute

d. None of these

Ans

✗ A. (a)

✗ B. (b)

✓ C. (c)

✗ D. (d)

Question ID : **61477217616**
Status : **Answered**
Chosen Option : **A**

Q.8

Which of the following is not implied by the condition of *'ceteris paribus'* in the context of the Law of Demand ?

a. The price of the commodity does not change

b. The price of its substitutes does not change

c. The income of the consumer does not change

d. The price of the complementary goods does not change

Ans

✓ A. (a)

✗ B. (b)

✗ C. (c)

✗ D. (d)

Question ID : **61477217602**
Status : **Answered**
Chosen Option : **C**

Q.9

Dalal Street in Mumbai is famous because _____

a. it is the Asia's biggest gold market

b. it is the street where all the big corporates in India have their registered offices

c. it is the birth place of Dyal Singh Majithia, Founder of PNB

d. none of the above

Ans

✗ A. (a)

✗ B. (b)

✗ C. (c)

✓ D. (d)

Question ID : **61477217586**
Status : **Answered**
Chosen Option : **D**

Q.10 An index number which is used for measuring changes in the physical volumes of commodity is called –

a. Price relatives
b. Quantity relatives
c. Value relatives
d. All of these

Ans
✗ A. (a)
✓ B. (b)
✗ C. (c)
✗ D. (d)

Question ID : **61477217617**
Status : **Answered**
Chosen Option : **D**

Q.11 In the case of Giffen goods, fall in their prices will _____

a. not affect the demand
b. reduce the demand
c. increase the demand
d. abnormally change the demand

Ans
✗ A. (a)
✓ B. (b)
✗ C. (c)
✗ D. (d)

Question ID : **61477217601**
Status : **Answered**
Chosen Option : **C**

Q.12 Price discrimination is possible _____

a. only under monopoly situation
b. only under monopolistic competition
c. only under perfect competition
d. under any market form

Ans
✓ A. (a)
✗ B. (b)
✗ C. (c)
✗ D. (d)

Question ID : **61477217592**
Status : **Answered**
Chosen Option : **A**

Q.13

If the price is statutorily fixed and equal to MC, abnormal profits will:

a. Increase
b. Decrease
c. Cease to exist
d. Remain constant

Ans
✗ A. (a)
✗ B. (b)
✓ C. (c)
✗ D. (d)

Question ID : **61477217594**
Status : **Answered**
Chosen Option : **A**

Q.14

Histogram is used to find:

a. Mean
b. Mode
c. Median
d. Correlation

Ans
✗ A. (a)
✓ B. (b)
✗ C. (c)
✗ D. (d)

Question ID : **61477217621**
Status : **Answered**
Chosen Option : **C**

Q.15

Which of the following is a positional average?

a. Arithmetic Mean
b. Geometric Mean
c. Median
d. Harmonic Mean

Ans
✗ A. (a)
✗ B. (b)
✓ C. (c)
✗ D. (d)

Question ID : **61477217620**
Status : **Answered**
Chosen Option : **C**

Q.16

Which of the following distribution function has equal mean and variance?

a. Normal
b. Binomial
c. Hypergeometrical
d. Poisson

Ans
✔ A. (a)
✘ B. (b)
✘ C. (c)
✘ D. (d)

Question ID : **61477217606**
Status : **Answered**
Chosen Option : **C**

Q.17

Ogive is a:

a. Frequency polygon
b. Cumulative frequency polygon
c. Line diagram
d. Pie diagram

Ans
✘ A. (a)
✔ B. (b)
✘ C. (c)
✘ D. (d)

Question ID : **61477217618**
Status : **Answered**
Chosen Option : **C**

Q.18

Which of the following probability distribution is continuous?

a. Normal
b. Binomial
c. Poisson
d. None of these

Ans
✔ A. (a)
✘ B. (b)
✘ C. (c)
✘ D. (d)

Question ID : **61477217623**
Status : **Answered**
Chosen Option : **C**

Q.19 Probability of drawing a king of red colour from a pack of cards will be _____

a. 4/52
b. 2/52
c. 1/52
d. 13/52

Ans
✗ A. (a)
✓ B. (b)
✗ C. (c)
✗ D. (d)

Question ID : **61477217625**
Status : **Answered**
Chosen Option : **B**

Q.20 The variance of a data set is 9. If every item in the data set is multiplied by 2, then what is variance of the resulting data set?

a. 12
b. 36
c. 72
d. 324

Ans
✗ A. (a)
✓ B. (b)
✗ C. (c)
✗ D. (d)

Question ID : **61477217614**
Status : **Marked For Review**
Chosen Option : **C**

Q.21 Economic development of a country depends on _____

a. Capital formation
b. Natural resources
c. Size of the market
d. All of the above

Ans
✗ A. (a)
✗ B. (b)
✗ C. (c)
✓ D. (d)

Question ID : **61477217599**
Status : **Answered**
Chosen Option : **D**

Q.22

Excess capacity is not usually formed under _____

a. Monopoly

b. Monopolistic competition

c. Perfect competition

d. Oligopoly

Ans

✗ A. (a)

✗ B. (b)

✓ C. (c)

✗ D. (d)

Question ID : **61477217600**
Status : **Answered**
Chosen Option : **A**

Q.23

A monopoly firm can fix _____

a. both price and output together

b. either price or output but not both

c. only price but not output

d. only output but not price

Ans

✗ A. (a)

✓ B. (b)

✗ C. (c)

✗ D. (d)

Question ID : **61477217597**
Status : **Answered**
Chosen Option : **B**

Q.24

Two commodities are considered to be perfect substitutes for each other if the elasticity of substitution is:

a. Positive

b. Negative

c. Zero

d. Infinite

Ans

✗ A. (a)

✗ B. (b)

✗ C. (c)

✓ D. (d)

Question ID : **61477217603**
Status : **Answered**
Chosen Option : **C**

Q.25

The theory of monopolistic competition was developed by _____

a. E H Chamberlin

b. H E Chamberlin

c. Mrs. John Robinson

d. Joan Robinson

Ans
✔ A. (a)
✘ B. (b)
✘ C. (c)
✘ D. (d)

Question ID : **61477217596**
Status : **Answered**
Chosen Option : **B**

Q.26

Which of the following type of market is susceptible for dumping?

a. Perfect Competition

b. Monopoly

c. Monopolistic Competition

d. Oligopoly

Ans
✔ A. (a)
✘ B. (b)
✘ C. (c)
✘ D. (d)

Question ID : **61477217588**
Status : **Answered**
Chosen Option : **C**

Q.27

Most appropriate average for qualitative measurement is:

a. Arithmetic mean

b. Geometric mean

c. Harmonic mean

d. Median

Ans
✘ A. (a)
✘ B. (b)
✘ C. (c)
✔ D. (d)

Question ID : **61477217609**
Status : **Answered**
Chosen Option : **A**

Q.28

If n is very large and probability of success for an event (p) is very small _____ kind of probability distribution will be most appropriate.

a. Normal
b. Binomial
c. Poisson
d. Multinomial

Ans
✗ A. (a)
✗ B. (b)
✓ C. (c)
✗ D. (d)

Question ID : **61477217624**
Status : **Answered**
Chosen Option : **C**

Q.29

Measures of central tendency are called averages of:

a. First order
b. Second order
c. Third order
d. None of these

Ans
✓ A. (a)
✗ B. (b)
✗ C. (c)
✗ D. (d)

Question ID : **61477217610**
Status : **Answered**
Chosen Option : **B**

Q.30

Price rise due to the increase in the cost of production is called _____

a. Cost-push inflation
b. Demand-pull inflation
c. Stagflation
d. Deflation

Ans
✓ A. (a)
✗ B. (b)
✗ C. (c)
✗ D. (d)

Question ID : **61477217587**
Status : **Answered**
Chosen Option : **A**

Q.31

The AR curve and industry demand curve are same in case of _____

a. a monopolistic markets

b. an oligopolistic markets

c. perfectly competitive markets

d. None of the above

Ans
✗ A. (a)
✗ B. (b)
✗ C. (c)
✓ D. (d)

Question ID : **61477217595**
Status : **Marked For Review**
Chosen Option : **A**

Q.32

Pie diagrams are:

a. One dimensional diagrams

b. Two dimensional diagrams

c. Three dimensional diagrams

d. Multi-dimensional diagrams

Ans
✗ A. (a)
✓ B. (b)
✗ C. (c)
✗ D. (d)

Question ID : **61477217607**
Status : **Answered**
Chosen Option : **A**

Q.33

A backward poor country faces vicious circle in relation to _____

a. Population growth

b. Social backwardness

c. Supply of and demand for capital

d. All of the above

Ans
✗ A. (a)
✗ B. (b)
✗ C. (c)
✓ D. (d)

Question ID : **61477217598**
Status : **Answered**
Chosen Option : **D**

Q.34

In the short run, the monopolist can _____

a. incur loss

b. make profit

c. both a & b

d. never incur loss

Ans

✗ A. (a)

✗ B. (b)

✓ C. (c)

✗ D. (d)

Question ID : **61477217591**
Status : **Answered**
Chosen Option : **A**

Q.35

The median of a series is 10. Two additional observations of 5 and 20, are added to the series, the median of new series will be:

a. 9

b. 20

c. 7

d. 10

Ans

✗ A. (a)

✗ B. (b)

✗ C. (c)

✓ D. (d)

Question ID : **61477217608**
Status : **Not Answered**
Chosen Option : **--**

Q.36

Bilateral monopoly means:

a. Two rival sellers only

b. Twp rival buyers only

c. A monopoly seller buying input from many suppliers

d. A monopolist facing a monopsonist

Ans

✗ A. (a)

✗ B. (b)

✗ C. (c)

✓ D. (d)

Question ID : **61477217593**
Status : **Answered**
Chosen Option : **A**

Q.37

For a closed economy having no foreign trade which one of the following is correct?

a. GDP = GNP

b. GDP>GNP

c. GDP<GNP

d. None of these

Ans

✔ A. (a)

✘ B. (b)

✘ C. (c)

✘ D. (d)

Question ID : **61477217590**
Status : **Answered**
Chosen Option : **D**

Q.38

Which of the following agency is responsible for computation of national income in India?

a. National Council for Applied Economic Research

b. Central Statistical Organization

c. National Sample Survey Organization

d. Indian Statistical Institute

Ans

✘ A. (a)

✔ B. (b)

✘ C. (c)

✘ D. (d)

Question ID : **61477217589**
Status : **Answered**
Chosen Option : **C**

Q.39

In random sampling:

a. Each element has equal chance of being selected

b. Sample is always full of bias

c. Cost employed is very less

d. None of these

Ans

✔ A. (a)

✘ B. (b)

✘ C. (c)

✘ D. (d)

Question ID : **61477217615**
Status : **Answered**
Chosen Option : **A**

Q.40

Which of the following is not true?

a. Quartiles divide a series in four parts

b. Percentiles are 100 in number

c. Mean is highly affected by extreme values

d. Median divides the series into 6 equal parts

Ans

✗ A. (a)

✗ B. (b)

✗ C. (c)

✓ D. (d)

Question ID : **61477217611**
Status : **Marked For Review**
Chosen Option : **B**

Section : **Mathematics**

Q.1

In a triangle PQR if $3sinP + 4cosQ = 6$ and $4sinQ + 3cosP = 1$, then the angle R is equal to

a. $\pi/6$

b. $\pi/2$

c. $\pi/3$

d. none of these

Ans

✓ A. (a)

✗ B. (b)

✗ C. (c)

✗ D. (d)

Question ID : **61477217662**
Status : **Answered**
Chosen Option : **A**

Q.2

If the sum of the distances of a point from two perpendicular lines in a plane is 1, then its locus is

a. square

b. straight line

c. circle

d. none of these

Ans

✓ A. (a)

✗ B. (b)

✗ C. (c)

✗ D. (d)

Question ID : **61477217654**
Status : **Answered**
Chosen Option : **D**

Q.3

The maximum number of ways 4 circles and 4 straight lines intersect is

a. 26
b. 50
c. 52
d. 32

Ans
✗ A. (a)
✓ B. (b)
✗ C. (c)
✗ D. (d)

Question ID : **61477217647**
Status : **Marked For Review**
Chosen Option : **D**

Q.4

The expression $\frac{tan\,A}{1-cot\,A}+\frac{cot\,A}{1-tan\,A}$ can be written as

a. $secA + cosecA$
b. $secA - cosecA$
c. $secAcosecA$
d. none of the above

Ans
✗ A. (a)
✗ B. (b)
✓ C. (c)
✗ D. (d)

Question ID : **61477217663**
Status : **Not Answered**
Chosen Option : **--**

Q.5

For what value of a, $f(x)=\frac{acosx}{\frac{\pi}{2}-x}, x\neq\frac{\pi}{2}, f(x)=1\ at\ x=\frac{\pi}{2} is\ continuous\ at\ x=\pi/2$

a. 1
b. 1/2
c. -1
d. 3

Ans
✓ A. (a)
✗ B. (b)
✗ C. (c)
✗ D. (d)

Question ID : **61477217664**
Status : **Not Answered**
Chosen Option : **--**

Q.6

If $tan\theta = -\frac{4}{3}$ then $sin\theta$ is

a. -4/5 or 4/5
b. -2/5
c. 3/5 or -3/5
d. none of these

Ans ✔ A. (a)
✗ B. (b)
✗ C. (c)
✗ D. (d)

Question ID : **61477217661**
Status : **Answered**
Chosen Option : **A**

Q.7

The value of $\lim_{x\to 0} \frac{1-cos^3 x}{x\, sinx\, cosx}$ is

a. 3/2
b. 1/48
c. 4/31
d. 1

Ans ✔ A. (a)
✗ B. (b)
✗ C. (c)
✗ D. (d)

Question ID : **61477217651**
Status : **Not Answered**
Chosen Option : **--**

Q.8

If the equation $a(y+z) = x, b(z+x) = y, c(x+y) = z$ have non-trivial solutions, then the value of $\left[\frac{1}{1+a} + \frac{1}{1+b} + \frac{1}{1+c}\right]$ is

a. 1
b. 2
c. -1
d. -2

Ans ✗ A. (a)
✔ B. (b)
✗ C. (c)
✗ D. (d)

Question ID : **61477217639**
Status : **Not Answered**
Chosen Option : **--**

Q.9

The function $f(x) = |x + 2|$ is not differentiable at x is equal to:

a. -2
b. 2
c. 1
d. none of these

Ans
✔ A. (a)
✘ B. (b)
✘ C. (c)
✘ D. (d)

Question ID : **61477217665**
Status : **Answered**
Chosen Option : **B**

Q.10

The value of integral $\int_{-\pi/4}^{\pi/4} x\, cos^4 x\, dx$ is

a. 0
b. π /3
c. π
d. -1

Ans
✔ A. (a)
✘ B. (b)
✘ C. (c)
✘ D. (d)

Question ID : **61477217627**
Status : **Not Answered**
Chosen Option : **--**

Q.11

The value of integral $\int_0^1 \frac{1}{\sqrt{x}} dx$ is

a. 2
b. 1
c. 3
d. 1/2

Ans
✔ A. (a)
✘ B. (b)
✘ C. (c)
✘ D. (d)

Question ID : **61477217629**
Status : **Not Answered**
Chosen Option : **--**

Q.12

Three horses A, B, C are in a race, A is twice as likely to win as B, and B is twice as likely to win as C. Then, probability that B or C wins

a. 1/5
b. 2/7
c. 3/7
d. 4/7

Ans
✗ A. (a)
✗ B. (b)
✓ C. (c)
✗ D. (d)

Question ID : **61477217659**
Status : **Answered**
Chosen Option : **B**

Q.13

Let $R = \{(1,3),(4,2),(2,4),(2,3)(3,1)\}$ be a relation on the set $A = \{1,2,3,4)\}$ then the relation R is

a. a function
b. reflexive
c. not symmetric
d. transitive

Ans
✗ A. (a)
✗ B. (b)
✓ C. (c)
✗ D. (d)

Question ID : **61477217640**
Status : **Answered**
Chosen Option : **D**

Q.14

If $|z+4| \leq 3$ then the maximum value of $|z+1|$ is

a. 4
b. 6
c. 0
d. 10

Ans
✗ A. (a)
✓ B. (b)
✗ C. (c)
✗ D. (d)

Question ID : **61477217643**
Status : **Not Answered**
Chosen Option : **--**

Q.15

If A and B are invertible square matrices of the same order, then

a. (adj AB) = adj A
b. (adj AB) = adj B
c. (adj AB) = (adj B)(adj A)
d. (adj AB) = (adj A)(adjB)

Ans
✗ A. (a)
✗ B. (b)
✓ C. (c)
✗ D. (d)

Question ID : **61477217632**
Status : **Answered**
Chosen Option : **D**

Q.16

The values of $(16)^{1/4}$ are

a. ±2, ±2i
b. ±2, ±3i
c. ±1, ±2i
d. none of these

Ans
✓ A. (a)
✗ B. (b)
✗ C. (c)
✗ D. (d)

Question ID : **61477217641**
Status : **Answered**
Chosen Option : **A**

Q.17

If $tan^{-1}(cot\theta) = 2\theta$, then θ is equal to

a. π/6
b. π/2
c. π/3
d. none of these

Ans
✓ A. (a)
✗ B. (b)
✗ C. (c)
✗ D. (d)

Question ID : **61477217636**
Status : **Marked For Review**
Chosen Option : **B**

Q.18

If $4x + 3y + 6z = 25, x + 5y + 7z = 13, 2x + 9y + z = 1$, then z is equal to:

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

Ans
✗ A. (a)
✗ B. (b)
✓ C. (c)
✗ D. (d)

Question ID : **61477217638**
Status : **Answered**
Chosen Option : **A**

Q.19

If $A = \begin{bmatrix} 4 & 2 \\ -1 & 1 \end{bmatrix}$, then $(A - 2I)(A - 3I)$ is

a. 0
b. -1
c. 2
d. 1

Ans
✓ A. (a)
✗ B. (b)
✗ C. (c)
✗ D. (d)

Question ID : **61477217637**
Status : **Not Answered**
Chosen Option : **--**

Q.20

The solution of $\frac{dy}{dx} - y = 1, y(0) = 1$ is given by

a. $y = 2e^x$
b. $y = 2e^x - 1$
c. $y = 2x - 1$
d. none of these

Ans
✗ A. (a)
✓ B. (b)
✗ C. (c)
✗ D. (d)

Question ID : **61477217653**
Status : **Answered**
Chosen Option : **A**

Q.21

Choose the correct option when given $f_1(x) = \frac{xe^{1/x}}{1+e^{1/x}}$, when $x \neq 0, f_1(0) = 0$ and $f_2(x) = \frac{e^{1/x}}{1+e^{1/x}}$, when $x \neq 0, f_2(0) = 0$.

a. Both are continuous at x=0.
b. Both are discontinuous at x=0.
c. f_1 (x) is discontinuous and f_2 (x) is continuous at x=0.
d. f_1 (x) is continuous and f_2 (x) is discontinuous at x=0.

Ans
✗ A. (a)
✗ B. (b)
✗ C. (c)
✓ D. (d)

Question ID : **61477217634**
Status : **Answered**
Chosen Option : **C**

Q.22

If the line $\frac{x}{a} + \frac{y}{b} = 1$ passes through the points (2,-3) and (4,-5), then (a,b) is

a. (1,1)
b. (1,-1)
c. (-1,-1)
d. none of these

Ans
✗ A. (a)
✗ B. (b)
✓ C. (c)
✗ D. (d)

Question ID : **61477217656**
Status : **Answered**
Chosen Option : **A**

Q.23

The first term of a GP is 1. The sum of the third term and fifth term is 90. The common ratio of GP is

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

Ans
✗ A. (a)
✗ B. (b)
✓ C. (c)
✗ D. (d)

Question ID : **61477217650**
Status : **Not Answered**
Chosen Option : **--**

Q.24

If $A = \begin{bmatrix} 3 & -2 \\ 4 & -2 \end{bmatrix}$ such that $A^2 = kA - 2I_2$, then k is equal to

a. 2
b. -1
c. 3
d. 1

Ans
✗ A. (a)
✗ B. (b)
✗ C. (c)
✓ D. (d)

Question ID : **61477217633**
Status : **Answered**
Chosen Option : **A**

Q.25

A telegraph has 5 arms and each arm is capable of 4 distinct positions, including the position of rest. The total number of signals that can be made is

a. 473
b. 1023
c. 1173
d. 7

Ans
✗ A. (a)
✓ B. (b)
✗ C. (c)
✗ D. (d)

Question ID : **61477217646**
Status : **Answered**
Chosen Option : **A**

Q.26

Three horses A, B, C are in a race, A is twice as likely to win as B, and B is twice as likely to win as C. Then, probability that A wins

a. 1/7
b. 0.5
c. 0.7
d. 4/7

Ans
✗ A. (a)
✗ B. (b)
✗ C. (c)
✓ D. (d)

Question ID : **61477217658**
Status : **Answered**
Chosen Option : **A**

Q.27

Three numbers form an increasing GP. If the middle term is doubled, then the new numbers are in Ap. The common ratio of GP is

a. $2-\sqrt{3}$
b. $2+\sqrt{3}$
c. 2
d. none of these

Ans
✗ A. (a)
✓ B. (b)
✗ C. (c)
✗ D. (d)

Question ID : **61477217648**
Status : **Not Answered**
Chosen Option : **--**

Q.28

The value of k so that the equations $x^2 - x - 12 = 0$ and $kx^2 + 10x + 3 = 0$ may have one common root is

a. 1
b. 3
c. -3
d. 7

Ans
✗ A. (a)
✓ B. (b)
✗ C. (c)
✗ D. (d)

Question ID : **61477217644**
Status : **Answered**
Chosen Option : **C**

Q.29

The sum of the real roots of the equation $|x-2|^2+|x-2|-2=0$ is

a. 2
b. 3
c. 4
d. 7

Ans
✗ A. (a)
✗ B. (b)
✓ C. (c)
✗ D. (d)

Question ID : **61477217645**
Status : **Not Answered**
Chosen Option : **--**

Q.30

The 5^{th} derivative of $(ax+b)^4$ is

a. 1
b. 1/2
c. 0
d. a10

Ans
✗ A. (a)
✗ B. (b)
✓ C. (c)
✗ D. (d)

Question ID : **61477217626**
Status : **Answered**
Chosen Option : **D**

Q.31

The differential equation of all parabolas whose axes are parallel to y-axis, is

a. $\frac{d^3y}{dx^3}=1$
b. $\frac{d^3y}{dx^3}=0$
c. $\frac{d^3y}{dx^3}=-1$
d. none of these

Ans
✗ A. (a)
✓ B. (b)
✗ C. (c)
✗ D. (d)

Question ID : **61477217652**
Status : **Marked For Review**
Chosen Option : **A**

Q.32

Slope of a line which cuts off intercepts of equal lengths on the axes is

a. -1
b. 2
c. 1
d. none of these

Ans
✓ A. (a)
✗ B. (b)
✗ C. (c)
✗ D. (d)

Question ID : **61477217655**
Status : **Answered**
Chosen Option : **C**

Q.33

The locus represented by $|z-1| = |z+i|$ is

a. x-axis
b. y-axis
c. $x= y^2$
d. x+y=0

Ans
✗ A. (a)
✗ B. (b)
✗ C. (c)
✓ D. (d)

Question ID : **61477217642**
Status : **Not Answered**
Chosen Option : **--**

Q.34

If $P(A \cup B) = 0.8$ and $P(A \cap B) = 0.3$ then $P(\bar{A}) + P(\bar{B})$ is equal to

a. 0.3
b. 0.5
c. 0.7
d. 0.9

Ans
✗ A. (a)
✗ B. (b)
✗ C. (c)
✓ D. (d)

Question ID : **61477217660**
Status : **Answered**
Chosen Option : **B**

Q.35

Determinant of matrix $\begin{bmatrix} \alpha & \beta & \gamma \\ \alpha^2 & \beta^2 & \gamma^2 \\ \beta+\gamma & \gamma+\alpha & \alpha+\beta \end{bmatrix}$ is

a. $(\beta-\gamma)(\gamma+\alpha)(\alpha+\beta)(\alpha+\beta-\gamma)$
b. $(\beta-\gamma)(\gamma-\alpha)(\alpha+\beta)(\alpha-\beta+\gamma)$
c. $(\beta-\gamma)(\gamma-\alpha)(\alpha-\beta)(\alpha+\beta+\gamma)$
d. $(\beta+\gamma)(\gamma+\alpha)(\alpha+\beta)(\alpha-\beta-\gamma)$

Ans
✗ A. (a)
✗ B. (b)
✓ C. (c)
✗ D. (d)

Question ID : **61477217631**
Status : **Answered**
Chosen Option : **B**

Q.36

The eccentricity of the hyperbola $9x^2 - 16y^2 + 72x - 32y - 16 = 0$ is

a. 1
b. 5/4
c. 3/4
d. 4/3

Ans
✗ A. (a)
✓ B. (b)
✗ C. (c)
✗ D. (d)

Question ID : **61477217657**
Status : **Not Answered**
Chosen Option : **--**

Q.37

If $\frac{1}{b+c}, \frac{1}{c+a}, \frac{1}{a+b}$ are in AP then

a. a, b, c are in AP
b. a^2, b^2, c^2 are in AP
c. 1/1, 1/b, 1/c are in AP
d. None of these

Ans
✓ A. (a)
✗ B. (b)
✗ C. (c)
✗ D. (d)

Question ID : **61477217649**
Status : **Answered**
Chosen Option : **A**

Q.38

The value of λ for which the vectors $3\hat{\imath} - 6\hat{\jmath} + \hat{k}$ and $2\hat{\imath} - 4\hat{\jmath} + \lambda\hat{k}$ are parallel, is

a. 2/3
b. 3/2
c. 5/2 $\hat{k}$
d. 2/5

Ans
✓ A. (a)
✗ B. (b)
✗ C. (c)
✗ D. (d)

Question ID : **61477217635**
Status : **Answered**
Chosen Option : **C**

Q.39 The vector in the direction of the vector $(\hat{\imath} - 2\hat{\jmath} + 2\hat{k})$ that has magnitude 9 is

a. $(\hat{\imath} - 2\hat{\jmath} + 2\hat{k}$

b. $(\hat{\imath} - 2\hat{\jmath} + 2\hat{k})/3$

c. $3(\hat{\imath} - 2\hat{\jmath} + 2\hat{k})$

d. $\widehat{9(\imath} - 2\hat{\jmath} + 2\hat{k})$c

Ans
✗ A. (a)
✗ B. (b)
✓ C. (c)
✗ D. (d)

Question ID : **61477217630**
Status : **Answered**
Chosen Option : **D**

Q.40

The value of integral $\int_0^\infty e^{-2x}x^6\,dx$ is

a. 45/8

b. 47/48

c. 3/204

d. $\pi/2$

Ans
✓ A. (a)
✗ B. (b)
✗ C. (c)
✗ D. (d)

Question ID : **61477217628**
Status : **Marked For Review**
Chosen Option : **C**