



Guru Gobind Singh Indraprastha University
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Subject	BA(Economics)

Section : General English

Q.1

S Radhakrishnan _____ an outstanding educator _____ the president of India.

- (a) Indeed, and
- (b) Not only, but also
- (c) Not only, but
- (d) Indeed, however

Ans ☒ A. 1

☒ B. 2

☒ C. 3

☒ D. 4

Question ID : 2233951701

Status : Answered

Chosen Option : B

Q.2

Arrange the following sentences in a logical order.

- I. If you are caught in paper versus plastic debate at the grocery store, don't assume that your choice of paper is the more environmentally sound decision.
- II. Paper bags use more resources in their production, although they have a greater chance of being recycled and of breaking down when they do make it to the land fill.
- III. Plastic bags, which are cheaper to manufacture, create less trash by weight but do not breakdown.
- IV. Burning plastic bags to create electricity puts heavy metals into the air and toxic ash into solid waste.
- V. Today, some stores offer only paper, preferring recyclables.

- (a) I, II, III, IV, V
- (b) V, I, II, III, IV
- (c) V, II, I, III, IV
- (d) I, V, II, III, IV

Ans  A. 1 B. 2 C. 3 D. 4

Question ID : 2233951708

Status : Answered

Chosen Option : B

Q.3

Choose the correct meaning of the underlined idiom. They fought tooth and nail to be victorious.

- (a) without any other weapon
- (b) resorting to violence
- (c) with all their might
- (d) very cowardly

Ans  A. 1 B. 2 C. 3 D. 4

Question ID : 2233951720

Status : Answered

Chosen Option : C

Q.4

Choose the sentence that conveys the same meaning as the given sentence.

I had scarcely rang the bell when the door opened.

- (a) The bell rang as I opened the door.
- (b) The bell was hardly working so I opened the door.
- (c) The door opened as soon as I rang the bell.
- (d) The door opened without ringing the bell.

Ans ☒ A. 1
☒ B. 2
☒ C. 3
☒ D. 4

Question ID : 2233951712

Status : Answered

Chosen Option : D

Q.5

He will pass in the test only when pigs fly. What is the meaning of the underlying idiom?

- (a) Works very hard
- (b) Believes in oneself
- (c) Concentrates hard
- (d) Nearly impossible

Ans ☒ A. 1
☒ B. 2
☒ C. 3
☒ D. 4

Question ID : 2233951705

Status : Answered

Chosen Option : D

Q.6

Fill in the blanks with the most suitable options:

Remember -----day is a new chance -----get everything right.

- (a) every, to
- (b) any, at
- (c) any, of
- (d) every, on

Ans ☒ A. 1
☒ B. 2
☒ C. 3
☒ D. 4

Question ID : 2233951710

Status : Answered

Chosen Option : A

Q.7

Which one of these refers to an expression that is trite, worn-out, and overused?

- (a) Cliché
- (b) Conflict
- (c) Caricature
- (d) Catharsis

Ans  A. 1

 B. 2

 C. 3

 D. 4

Question ID : 2233951716

Status : Not Answered

Chosen Option : --

Q.8

Identify the correct synonym.

Frugal

- (a) Ridiculous
- (b) Economical
- (c) Enthusiastic
- (d) Routine

Ans  A. 1

 B. 2

 C. 3

 D. 4

Question ID : 2233951718

Status : Answered

Chosen Option : A

Q.9

The team was accustomed _____ him being late.

- (a) of
- (b) to
- (c) about
- (d) for

Ans  A. 1
 B. 2
 C. 3
 D. 4

Question ID : 2233951703
Status : Answered
Chosen Option : C

Q.10

Neither _____ us knows the truth _____ the incident. Fill in the blanks.

- (a) of, in
- (b) about, of
- (c) about, in
- (d) of, about

Ans  A. 1
 B. 2
 C. 3
 D. 4

Question ID : 2233951702
Status : Answered
Chosen Option : D

Q.11

Sorry, you can't borrow my pen. I --- it myself

- (a) was using
- (b) am using
- (c) using
- (d) used

Ans  A. 1
 B. 2
 C. 3
 D. 4

Question ID : 2233951717
Status : Answered
Chosen Option : B

Q.12

Harry was fond _____ architecture but it was not the case _____ his wife.

Which of the following pairs would best complete the sentence?

- (a) of, of
- (b) for, of
- (c) for, with
- (d) of, with

Ans  A. 1
 B. 2
 C. 3
 D. 4

Question ID : 2233951706
Status : Answered
Chosen Option : D

Q.13

Select the pair of words, which exhibit the same relationship between each other as the given pair of words.

Energy : Joule

- (a) Axe: Grind
- (b) Ammeter: Current
- (c) Power : Ampere
- (d) Resistance: Ohm

Ans  A. 1
 B. 2
 C. 3
 D. 4

Question ID : 2233951714

Status : Answered

Chosen Option : D

Q.14

Rely: reliable / imagine: imaginative / ambition: _____

- (a) ambitious
- (b) ambitiative
- (c) ambitious
- (d) ambitiable

Ans  A. 1
 B. 2
 C. 3
 D. 4

Question ID : 2233951719

Status : Answered

Chosen Option : C

Q.15

They wanted to buy a well-equipped/ well-furnished apartment but that was not their only requirement.

Which of the following sentences would be best for a student to rewrite the above?

- (a) They wanted to buy an apartment complete with furniture but had many other conditions for their purchase.
- (b) It was difficult for them to find an apartment that was fully furnished and also met other requirements.
- (c) They wanted to buy a fully furnished apartment but also had other demands for their purchase.
- (d) They wanted to buy a fully furnished apartment but that was not the only criterion for their purchase.

Ans  A. 1
 B. 2
 C. 3
 D. 4

Question ID : 2233951707

Status : Answered

Chosen Option : D

Q.16

The practice of writing dictionaries is known as:

- (a) Historiography
- (b) Demography
- (c) Lexicography
- (d) Calligraphy

Ans  A. 1
 B. 2
 C. 3
 D. 4

Question ID : 2233951715

Status : Not Answered

Chosen Option : --

Q.17

Fill in the blank with the correct option:

Your father -----worry, I am a very careful driver.

- (a) can't
- (b) don't
- (c) needn't
- (d) doesn't

Ans  A. 1
 B. 2
 C. 3
 D. 4

Question ID : 2233951709

Status : Answered

Chosen Option : C

Q.18

Out of the given options, choose the one which is nearest in meaning to the italicised word in a sentence.

There is not a single word that is *redundant* in the report.

- (a) flowery
- (b) unimportant
- (c) not needed
- (d) embellished

Ans  A. 1
 B. 2
 C. 3
 D. 4

Question ID : 2233951711

Status : Answered

Chosen Option : B

Q.19

Choose the most logical order of sentences from among the given choices to construct a coherent paragraph:

- A How could he choose things so quickly?
- B Simon selected everything he needed very quickly.
- C But his selections were fantastic.
- D He has been in marketing job for many years.

- (a) C,B, A,D
- (b) A,D,C,B
- (c) B,C,A,D
- (d) A,C,D,B

Ans  A. 1
 B. 2
 C. 3
 D. 4

Question ID : 2233951713

Status : Answered

Chosen Option : C

Q.20

After Covid, the belief in vaccines has gained ground. What does the underlined phrase best stand for?

- (a) Become more accepted
- (b) Become widespread
- (c) Increased in sales
- (d) Stagnated in growth

Ans  A. 1
 B. 2
 C. 3
 D. 4

Question ID : 2233951704

Status : Answered

Chosen Option : B

Section : Economics and Statistics

Q.1

When no firm or consumer is large enough to influence market prices, the market is assumed to have-

- (a) No Competition
- (b) Perfect Competition
- (c) Imperfect Competition
- (d) None of these

Ans  A. 1

 B. 2

 C. 3

 D. 4

Question ID : 2233951727

Status : Answered

Chosen Option : A

Q.2

Who is regarded as the father of modern macroeconomics?

- (a) Friedrich Hayek
- (b) Adam Smith
- (c) John Keynes
- (d) Milton Friedman

Ans  A. 1

 B. 2

 C. 3

 D. 4

Question ID : 2233951732

Status : Answered

Chosen Option : B

Q.3

Given below is the number of pairs of shoes of different sizes sold by a Bata outlet :

Size of shoes	1	2	3	4	5	6	7	8	9
Number of pairs sold	1	2	2	3	4	5	3	7	2

Find the mode of the given data in terms of size of shoes.

- (a) 5
- (b) 4
- (c) 9
- (d) 8

Ans  A. 1

 B. 2

 C. 3

 D. 4

Question ID : 2233951750

Status : Answered

Chosen Option : D

Q.4

Why aren't intermediate goods counted as part of national income when it's calculated?

- (a) Intermediate goods are not good
- (b) To avoid double accounting
- (c) It decreases income
- (d) All of these

Ans  A. 1 B. 2 C. 3 D. 4

Question ID : 2233951740

Status : Answered

Chosen Option : B

Q.5

When the price of a commodity rises when demand is inelastic, the total expenditure of the commodity's consumers _____

- (a) Remain unchanged
- (b) Increase
- (c) Decrease
- (d) Any of the Above

Ans  A. 1 B. 2 C. 3 D. 4

Question ID : 2233951734

Status : Answered

Chosen Option : B

Q.6

The most frequently occurring value of a data set is called the

- (a) range
- (b) mode
- (c) mean
- (d) median

Ans  A. 1 B. 2 C. 3 D. 4

Question ID : 2233951745

Status : Answered

Chosen Option : B

Q.7

Which economic term is used to describe income distribution inequality?

- (a) GINI
- (b) GDP
- (c) GNP
- (d) HDI

Ans  A. 1 B. 2 C. 3 D. 4

Question ID : 2233951724

Status : Answered

Chosen Option : A

Q.8

The fundamental concept of Economics regarding resources is that they are –

- (a) Scarce
- (b) Equally Distributed
- (c) Unequally Distributed
- (d) Unlimited

Ans  A. 1 B. 2 C. 3 D. 4

Question ID : 2233951730

Status : Answered

Chosen Option : A

Q.9

When Marginal utility diminishes, total utility:

- (a) Remains constant
- (b) Diminishes
- (c) Increases
- (d) Increases at a Diminishing Rate

Ans  A. 1 B. 2 C. 3 D. 4

Question ID : 2233951737

Status : Answered

Chosen Option : A

Q.10

Consider a world where there is no scarcity of resources. What would be the repercussions?

- (a) Economics would no longer be a useful subject
- (b) All prices would be zero
- (c) Markets would be unnecessary
- (d) All the Above

Ans  A. 1
 B. 2
 C. 3
 D. 4

Question ID : 2233951731

Status : Answered

Chosen Option : B

Q.11

The difference between the largest and the smallest data values is the

- (a) range
- (b) variance
- (c) interquartile range
- (d) coefficient of variation

Ans  A. 1
 B. 2
 C. 3
 D. 4

Question ID : 2233951744

Status : Answered

Chosen Option : A

Q.12

The Law of Diminishing Returns is used for the following reasons:

- (a) Imperfect Substitution between Factors
- (b) Scarcity of Factors
- (c) Both a and b
- (d) None of the above

Ans  A. 1
 B. 2
 C. 3
 D. 4

Question ID : 2233951733

Status : Answered

Chosen Option : C

Q.13

Outputs are created by combining inputs with technology. The fundamental inputs (also known as production factors) are:

- (a) Land, Labour and Capital
- (b) Land and Capital
- (c) Land and Labour
- (d) Land, labour, capital and investment

Ans  A. 1 B. 2 C. 3 D. 4

Question ID : 2233951723

Status : Answered

Chosen Option : D

Q.14

The Binomial Distribution is a

- (a) Continuous distribution
- (b) Discrete distribution
- (c) Irregular distribution
- (d) not a Probability distribution

Ans  A. 1 B. 2 C. 3 D. 4

Question ID : 2233951746

Status : Not Answered

Chosen Option : --

Q.15

Tools of Monetary Policy-

- (a) CRR
- (b) SLR
- (c) Both a and b
- (d) Taxation

Ans  A. 1 B. 2 C. 3 D. 4

Question ID : 2233951722

Status : Answered

Chosen Option : C

Q.16

Which of the following commodities has the lowest demand elasticity?

- (a) Tea
- (b) Car
- (c) Salt
- (d) House

Ans  A. 1
 B. 2
 C. 3
 D. 4

Question ID : 2233951735

Status : Answered

Chosen Option : D

Q.17

Marginal Utility (MU) curve is always:

- (a) Rising
- (b) Parallel to X-axis
- (c) Falling
- (d) Parallel to Y-axis

Ans  A. 1
 B. 2
 C. 3
 D. 4

Question ID : 2233951728

Status : Answered

Chosen Option : C

Q.18

Numerical measurements that arise from a natural numerical scale are called

- (a) Quantitative data
- (b) Qualitative data
- (c) Random data
- (d) Useless data

Ans  A. 1
 B. 2
 C. 3
 D. 4

Question ID : 2233951756

Status : Answered




Chosen Option : A

Q.19

A measure that indicates the value below which a given percentage of observations in a group of observations falls

- (a) Percentile
- (b) Quantile
- (c) Percentage
- (d) Mean

Ans  A. 1

-  B. 2
-  C. 3
-  D. 4

Question ID : 2233951754

Status : Not Answered

Chosen Option : --

Q.20

A function that gives the probability that a random variable is less than or equal to a certain value.

- (a) Probability density function
- (b) Cumulative density function
- (c) Probability Mass Function
- (d) Binomial Distribution

Ans  A. 1

-  B. 2
-  C. 3
-  D. 4

Question ID : 2233951755

Status : Not Answered

Chosen Option : --

Q.21

If an event follows the binomial distribution, find 'n' the number of trials, given that the value of mean is 4 and variance is 2.

- (a) 6
- (b) 8
- (c) 4
- (d) 2

Ans  A. 1

-  B. 2
-  C. 3
-  D. 4

Question ID : 2233951747

Status : Not Answered

Chosen Option : --

Q.22

Which of the following is a two-variable display plot ?

- (a) Scatter Plot
- (b) Histogram
- (c) Pie Chart
- (d) Phase plot

Ans  A. 1 B. 2 C. 3 D. 4

Question ID : 2233951758

Status : Answered

Chosen Option : B

Q.23

Which of the following is not a function of money?

- (a) Hedge Against Inflation
- (b) Medium of Exchange
- (c) Store of Value
- (d) Unit of Account

Ans  A. 1 B. 2 C. 3 D. 4

Question ID : 2233951721

Status : Answered

Chosen Option : A

Q.24

The mean of 200 observations is 50 and their standard deviation is 4. The sum of squares of all deviations is

- (a) 160900
- (b) 50000
- (c) 503200
- (d) 57890

Ans  A. 1 B. 2 C. 3 D. 4

Question ID : 2233951743

Status : Not Answered

Chosen Option : --

Q.25

Which of the following is not affected by extreme values

- (a) mean
- (b) median
- (c) mode
- (d) both (a) and (b)

Ans  A. 1 B. 2 C. 3 D. 4

Question ID : 2233951751

Status : Answered

Chosen Option : C

Q.26

Taxation is used to discourage the _____ of a commodity.

- (a) Saving
- (b) Consumption
- (c) Production
- (d) Inflation

Ans  A. 1 B. 2 C. 3 D. 4

Question ID : 2233951726

Status : Answered

Chosen Option : B

Q.27

A Probability Distribution that is not symmetrical is

- (a) a skewed distribution
- (b) Normal distribution
- (c) Gaussian distribution
- (d) A discrete

Ans  A. 1 B. 2 C. 3 D. 4

Question ID : 2233951760

Status : Answered

Chosen Option : D

Q.28

The probability function is always

- (a) Non-Negative**
- (b) Negative**
- (c) Infinity**
- (d) None of these**

Ans  A. 1
 B. 2
 C. 3
 D. 4

Question ID : **2233951741**
Status : **Answered**
Chosen Option : **A**

Q.29

The relationship between _____ is explained by the price elasticity of demand

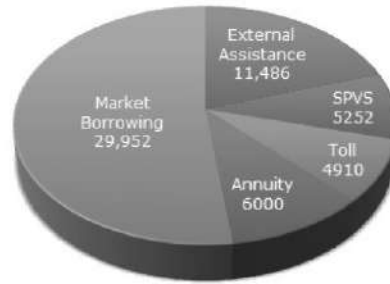
- (a) Utility and Demand**
- (b) Income and Demand**
- (c) Price and Demand**
- (d) Price and Utility**

Ans  A. 1
 B. 2
 C. 3
 D. 4

Question ID : **2233951736**
Status : **Answered**
Chosen Option : **D**

Q.30

The following pie-chart shows the sources of funds to be collected by the National Highways Authority of India (NHAI) (in Rs. crore) for its Phase II projects. The central angle corresponding to Market Borrowing is



- (a) 52°
- (b) 137.8°
- (c) 187.2°
- (d) 192.4°

Ans ☒ A. 1
☒ B. 2
☒ C. 3
☒ D. 4

Question ID : 2233951753

Status : Answered

Chosen Option : C

Q.31

10% of the bulbs produced in a factory are of red color and 2% are red and defective. If one bulb is picked up at random, determine the probability of its being defective if it is red.

- (a) 0.10
- (b) 0.40
- (c) 0.05
- (d) 0.20

Ans ☒ A. 1
☒ B. 2
☒ C. 3
☒ D. 4

Question ID : 2233951748




Status : Answered

Chosen Option : D

Q.32

Which of the following is not a measure of dispersion?

- (a) Standard deviation
- (b) Arithmetic mean
- (c) Variance
- (d) Mode

Ans  A. 1
 B. 2
 C. 3
 D. 4

Question ID : 2233951742
Status : Answered
Chosen Option : D

Q.33

National income is calculated using the product method, which is also known as:

- (a) Expenditure Method
- (b) Income Method
- (c) Value added Method
- (d) Distribution Method





Ans  A. 1
 B. 2
 C. 3
 D. 4

Question ID : 2233951738
Status : Answered
Chosen Option : C

Q.34

The term "transfer payments" refers to payments made in the following way:

- (a) As compensation to employees
- (b) Without any exchange of goods and service
- (c) To workers on transfer from one job to another
- (d) None of the above

Ans  A. 1
 B. 2
 C. 3
 D. 4

Question ID : 2233951739
Status : Answered
Chosen Option : B

Q.35

The probability of getting an even number when a fair die is rolled is

- (a) $\frac{1}{6}$
- (b) $\frac{1}{2}$
- (c) $\frac{1}{3}$
- (d) $\frac{1}{12}$

Ans  A. 1

 B. 2

 C. 3

 D. 4

Question ID : 2233951749

Status : Answered

Chosen Option : B

Q.36

The law of large numbers follows from-

- (a) The Binomial Distribution
- (b) The Poisson distribution
- (c) The Central Limit Theorem
- (d) The uniform distribution

Ans  A. 1

 B. 2

 C. 3

 D. 4

Question ID : 2233951759

Status : Not Answered

Chosen Option : --

Q.37

The Law of Diminishing Returns depend on the assumption that –

- (a) Total output is constant
- (b) Land is the factor kept constant
- (c) The State of technical knowledge is unchanged
- (d) Average output declines faster than marginal output

Ans  A. 1

 B. 2

 C. 3

 D. 4

Question ID : 2233951729

Status : Not Answered

Chosen Option : --

Q.38

The mode of letters in the word STATISTICS is :

- (a) S
- (b) T
- (c) I
- (d) S & T

Ans  A. 1

 B. 2

 C. 3

 D. 4

Question ID : 2233951752

Status : Answered

Chosen Option : D

Q.39

Any specific collection of objects of interest is called –

- (a) Population
- (b) Society
- (c) Club
- (d) Class

Ans  A. 1

 B. 2

 C. 3

 D. 4

Question ID : 2233951757

Status : Answered

Chosen Option : D

Q.40

The primary function of markets is to determine the

- (a) Level of Income
- (b) Quality of Goods
- (c) Quantity of Goods
- (d) Price of Goods

Ans ☒ A. 1
☒ B. 2
☒ C. 3
☒ D. 4

Question ID : 2233951725
Status : Answered
Chosen Option : D

Section : Mathematics

Q.1

$3x^2 + 3y^2 - 6x + 9y - 14 = 0$ represents an equation for

- (a) a straight line
- (b) a hyperbola
- (c) a circle
- (d) an ellipse

Ans ☒ A. 1
☒ B. 2
☒ C. 3
☒ D. 4

Question ID : 2233951799
Status : Answered
Chosen Option : C

Q.2

The area enclosed by the ellipse $\frac{x^2}{a^2} + \frac{y^2}{b^2} = 1$ is equal to

- (a) $\pi^2 ab$
- (b) πab
- (c) $\pi a^2 b$
- (d) πab^2

Ans  A. 1
 B. 2
 C. 3
 D. 4

Question ID : 2233951800
Status : Not Answered
Chosen Option : --

Q.3

A linear equation is one that describes the equation of

- (a) a circle
- (b) an ellipse
- (c) a parabola
- (d) a straight line

Ans  A. 1
 B. 2
 C. 3
 D. 4

Question ID : 2233951780
Status : Answered
Chosen Option : D

Q.4

The trace of the matrix $\begin{bmatrix} 1 & 2 & 3 \\ 4 & 5 & 6 \\ 7 & 8 & 9 \end{bmatrix}$ is

(a) 9

(b) 15

(c) 45

(d) 6

Ans  A. 1
 B. 2
 C. 3
 D. 4

Question ID : 2233951784

Status : Not Answered

Chosen Option : --

Q.5

$\lim x^{100} e^{-x}$ is

(a) zero

(b) ∞

(c) 1

(d) $-\infty$

Ans  A. 1
 B. 2
 C. 3
 D. 4

Question ID : 2233951793

Status : Answered

Chosen Option : A

Q.6

The transpose of the matrix $\begin{bmatrix} 3 & 0 & 3 \\ 0 & 0 & 3 \end{bmatrix}$ is

(a) $\begin{bmatrix} 3 & 0 & 3 \\ 0 & 0 & 3 \end{bmatrix}$

(b) $\begin{bmatrix} 3 & 0 \\ 0 & 0 \\ 3 & 3 \end{bmatrix}$

(c) $\begin{bmatrix} 0 & 0 & 3 \\ 3 & 0 & 3 \end{bmatrix}$

(d) $\begin{bmatrix} 3 & 0 \\ 0 & 3 \\ 0 & 0 \end{bmatrix}$

Ans  A. 1
 B. 2
 C. 3
 D. 4

Question ID : 2233951783

Status : Answered

Chosen Option : B

Q.7

If 100 fair coins are tossed, the probability of getting 20 heads is

(a) $\frac{100!}{10!90!} \left(\frac{1}{2}\right)^{20} \left(\frac{1}{2}\right)^{80}$

(b) $\frac{10!90!}{100!} \left(\frac{1}{2}\right)^{20} \left(\frac{1}{2}\right)^{80}$

(c) $\frac{10}{10!90!} \left(\frac{1}{2}\right)^{20}$

(d) 0.2

Ans  A. 1
 B. 2
 C. 3
 D. 4

Question ID : 2233951798

Status : Answered

Chosen Option : A

Q.8

The radius of a circle is increasing at the rate of 0.7 cm/s. What is the rate of increase of its circumference?

- (a) 0.7π
- (b) 7π
- (c) 1.4π
- (d) 14π

Ans  A. 1
 B. 2
 C. 3
 D. 4

Question ID : 2233951778

Status : Answered

Chosen Option : C

Q.9

Given the function $f(x) = 2x + 3$, at $x = 1$ which of the following is correct?

- (a) f is continuous
- (b) f is discontinuous
- (c) f is discontinuous discrete
- (d) f is differentiable discontinuous

Ans  A. 1
 B. 2
 C. 3
 D. 4

Question ID : 2233951772

Status : Answered

Chosen Option : B

Q.10

The derivative of $\tan^{-1}(x)$ is

(a) $\cos^{-1}(x)$

(b) $1 - x^2$

(c) $\frac{1}{1 + x^2}$

(d) $\sqrt{1 - x^2}$

Ans  A. 1
 B. 2
 C. 3
 D. 4

Question ID : 2233951785
Status : Answered
Chosen Option : C

Q.11

$\lim_{x \rightarrow 0} \frac{\sin(x)}{x}$ is

(a) zero

(b) ∞

(c) 1

(d) -1

Ans  A. 1
 B. 2
 C. 3
 D. 4

Question ID : 2233951786
Status : Answered
Chosen Option : C

Q.12

The given set $\{x : x \in \mathbb{N} \text{ and } x \text{ is prime}\}$ is example of ?

- (a) finite set
- (b) infinite set
- (c) empty set
- (d) non-empty finite set

Ans  A. 1
 B. 2
 C. 3
 D. 4

Question ID : 2233951776

Status : Answered

Chosen Option : B

Q.13

The probability that a prime number selected at random from the numbers

(1,2,3,35) is :

- (a) 12/35
- (b) 11/35
- (c) 13/35
- (d) none of these

Ans  A. 1
 B. 2
 C. 3
 D. 4

Question ID : 2233951768

Status : Answered

Chosen Option : B

Q.14

If $A = \begin{bmatrix} 1 & 2 & 3 \\ 4 & 5 & 6 \end{bmatrix}$, $B = \begin{bmatrix} 7 & 8 \\ 9 & 10 \\ 11 & 12 \end{bmatrix}$, the product AB is

(a) $\begin{bmatrix} 58 & 64 \\ 139 & 154 \end{bmatrix}$

(b) $\begin{bmatrix} 58 & 64 \\ 154 & 139 \end{bmatrix}$

(c) $\begin{bmatrix} 154 & 64 \\ 139 & 58 \end{bmatrix}$

(d) It is not possible to multiply them

Ans  A. 1

 B. 2

 C. 3

 D. 4

Question ID : 2233951789

Status : Answered

Chosen Option : A

Q.15

The solution set of the equation $x^2 + x - 2 = 0$, are?

(a) $x = 1, -2$

(b) $x = -1, -2$

(c) $x = -1, 2$

(d) $x = 1, 2$

Ans  A. 1

 B. 2

 C. 3

 D. 4

Question ID : 2233951769

Status : Answered

Chosen Option : A

Q.16

If $\sin^{-1} x = y$, then

a) $0 \leq y \leq \pi$

b) $0 < y < \pi$

c) $-\frac{\pi}{2} < y < \frac{\pi}{2}$

d) $-\frac{\pi}{2} \leq y \leq \frac{\pi}{2}$

Ans  A. 1

 B. 2

 C. 3

 D. 4

Question ID : 2233951773

Status : Answered

Chosen Option : D

Q.17

The value of $\sin 75^\circ$ is

(a) $\frac{\sqrt{3}+1}{2\sqrt{2}}$

(b) $\frac{\sqrt{3}}{2\sqrt{2}}$

(c) $\frac{\sqrt{3}+2}{2\sqrt{2}}$

(d) $\frac{\sqrt{2}}{2\sqrt{3}}$

Ans  A. 1

 B. 2

 C. 3

 D. 4

Question ID : 2233951770

Status : Answered

Chosen Option : A

Q.18

Let $n(A) = m$, and $n(B) = n$. Then the total number of non-empty relations that can be defined from A to B is

- (a) m^n
- (b) $n^m - 1$
- (c) $mn - 1$
- (d) $2^{mn} - 1$

Ans  A. 1
 B. 2
 C. 3
 D. 4

Question ID : 2233951775

Status : Answered

Chosen Option : D

Q.19

The general solution of the differential equation $\frac{dy}{dx} = e^{x+y}$ is

- (a) $e^x + e^{-y} = c$
- (b) $e^x + e^y = c$
- (c) $e^{-x} + e^y = c$
- (d) $e^{-x} + e^{-y} = c$

Ans  A. 1
 B. 2
 C. 3
 D. 4

Question ID : 2233951765

Status : Answered

Chosen Option : A

Q.20

The function $f(x) = \tan(x) - x$

- (a) always increases
- (b) always decreases
- (c) never increases
- (d) sometimes increases and sometimes decreases.

Ans  A. 1
 B. 2
 C. 3
 D. 4

Question ID : 2233951761

Status : Answered

Chosen Option : D

Q.21

The linear equation $3y = x - 21$ represents

- (a) A straight line with slope=7 and intercept=3
- (b) A straight line with slope = $1/3$ and intercept = -7
- (c) A straight line with slope=1 and intercept=7
- (d) A straight line with slope=3 and intercept=1/7

Ans  A. 1
 B. 2
 C. 3
 D. 4

Question ID : 2233951781

Status : Answered

Chosen Option : B

Q.22

The equation $4px = y^2$ represents

- (a) a straight line
- (b) a hyperbola
- (c) a parabola
- (d) an ellipse

Ans  A. 1
 B. 2
 C. 3
 D. 4

Question ID : 2233951797

Status : Answered

Chosen Option : C

Q.23

Two events, A and B are said to be statistically independent if

(a) $P(AB)=P(A)+P(B)$

(b) $P(AB)=P(A)-P(B)$

(c) $P(AB)=P(A)/P(B)$

(d) $P(AB)=P(A).P(B)$

Ans  A. 1
 B. 2
 C. 3
 D. 4

Question ID : 2233951796

Status : Answered

Chosen Option : D

Q.24

$\sin(x)\cos(x)\tan(x)$ is equal to

(a) $1 - \cos^2(x)$

(b) $\cos^2(x)$

(c) $\sin(x)$

(d) $1 + \cos^2(x)$

Ans  A. 1
 B. 2
 C. 3
 D. 4

Question ID : 2233951795

Status : Answered

Chosen Option : A

Q.25

The order and degree of differential equation $\frac{d^2y}{dx^2} + \left(\frac{dy}{dx}\right)^{\frac{1}{4}} + x^{\frac{1}{5}} = 0$, respectively are

- (a) 2,4
- (b) 2,2
- (c) 2,3
- (d) 2, not defined

Ans  A. 1

 B. 2

 C. 3

 D. 4

Question ID : 2233951764

Status : Answered

Chosen Option : A

Q.26

75% of the children in a school have a dog, and 30% have a cat. Given that 60% of those that have cat also have a dog, what percent of those that have a dog also have a cat?

- (a) 30%
- (b) 24%
- (c) 18%
- (d) 60%

Ans  A. 1

 B. 2

 C. 3

 D. 4

Question ID : 2233951787

Status : Not Answered

Chosen Option : --

Q.27

If $y = \log \sqrt{\tan x}$, then the value of $\frac{dy}{dx}$ at $x = \frac{\pi}{4}$ is given by

- (a) ∞
- (b) 1
- (c) 0
- (d) $\frac{1}{2}$

Ans  A. 1

 B. 2

 C. 3

 D. 4

Question ID : 2233951791

Status : Answered

Chosen Option : B

Q.28

The first derivative of $e^{-x}\cos(x) + x^2$ is

- (a) $-e^{-x}(\cos(x) + \sin(x)) + 2x$
- (b) $e^{-x}\sin(x) + 2x$
- (c) $xe^{-x}\cos(x) - \sin(x) + 2x$
- (d) $-e^{-x}\sin(x) + 2x$

Ans  A. 1 B. 2 C. 3 D. 4

Question ID : 2233951790

Status : Answered

Chosen Option : A

Q.29

The sum of integers from 1 to 100 that are divisible by 2 is?

- (a) 1550
- (b) 2550
- (c) 1350
- (d) 1250

Ans  A. 1 B. 2 C. 3 D. 4

Question ID : 2233951774

Status : Not Answered

Chosen Option : --

Q.30

In a circle of diameter 40 cm, the length of a chord is 20 cm. Then the length of minor arc of the chord is

(a) $\frac{20}{3}$ cm

(b) $\frac{20\pi}{3}$ cm

(c) $\frac{20}{3\pi}$ cm

(d) $\frac{3\pi}{20}$ cm

Ans  A. 1 B. 2 C. 3 D. 4

Question ID : 2233951777

Status : Not Answered

Chosen Option : --

Q.31

If $x = t^2$, $y = t^3$, then $\frac{d^2y}{dx^2}$ is

(a) $\frac{3}{2}$

(b) $\frac{3}{4t}$

(c) $\frac{3}{2t}$

(d) $\frac{3t}{2}$

Ans  A. 1 B. 2 C. 3 D. 4

Question ID : 2233951792

Status : Answered

Chosen Option : B

Q.32

In a group of students, 100 students know Hindi, 50 know English and 25 know both. Each of the students knows either Hindi or English. How many students are there in the group?

- (a) 100
- (b) 50
- (c) 25
- (d) 125

Ans  A. 1
 B. 2
 C. 3
 D. 4

Question ID : 2233951779

Status : Answered

Chosen Option : D

Q.33

The angle of intersection of the parabolas $y^2 = 4ax$ and $x^2 = 4ay$ at the origin is

- (a) $\frac{\pi}{6}$
- (b) $\frac{\pi}{3}$
- (c) $\frac{\pi}{2}$
- (d) $\frac{\pi}{4}$

Ans  A. 1
 B. 2
 C. 3
 D. 4

Question ID : 2233951762

Status : Answered

Chosen Option : D

Q.34

The minimum value of $f(x) = x^4 - x^2 - 2x + 6$ is

- (a) 6
- (b) 4
- (c) 8
- (d) None of these

Ans  A. 1
 B. 2
 C. 3
 D. 4

Question ID : 2233951763

Status : Answered

Chosen Option : A

Q.35

The pair of equations $x = \alpha$ and $y = \beta$ graphically represents lines which are

- (a) parallel
- (b) intersecting at (β, α)
- (c) coincident
- (d) intersecting at (α, β)

Ans ☒ A. 1
☒ B. 2
☒ C. 3
☒ D. 4

Question ID : 2233951782

Status : Answered

Chosen Option : D

Q.36

A dice is thrown and a card is selected at random from a deck of 52 playing cards. The probability of getting an even number of the die and a spade card is

- (a) $\frac{1}{2}$
- (b) $\frac{1}{4}$
- (c) $\frac{1}{8}$
- (d) $\frac{3}{4}$

Ans ☒ A. 1
☒ B. 2
☒ C. 3
☒ D. 4

Question ID : 2233951766

Status : Answered

Chosen Option : C

Q.37

The total revenue in Rupees received from the sale of x units of a product is given by $R(x) = 3x^2 + 36x + 5$. The marginal revenue when $x = 15$ is

- a) 116
- b) 96
- c) 90
- d) 126

Ans ☒ A. 1
☒ B. 2
☒ C. 3
☒ D. 4

Question ID : 2233951771

Status : Answered

Chosen Option : D

Q.38 Two equations: $20x - 10y + 60 = 0$, $4x - 2y + 12 = 0$ represent a pair of lines which

- (a) intersect at exactly one point
- (b) are parallel
- (c) coincide with each other
- (d) intersect at two points

Ans ☒ A. 1
☒ B. 2
☒ C. 3
☒ D. 4

Question ID : 2233951788

Status : Answered

Chosen Option : A

Q.39

The equation of the axis of the parabola $x^2 = 4ay$ is

- (a) $x=0$
- (b) $x=a$
- (c) $y=0$
- (d) $y=a$

Ans ☒ A. 1
☒ B. 2
☒ C. 3
☒ D. 4

Question ID : 2233951767

Status : Answered

Chosen Option : C

Q.40

If $a < b < c$ and $\int_a^b f(x) dx = -4$ and $\int_a^c f(x) dx = -1$, then $\int_b^c f(x) dx$ is

- (a) 1
- (b) 2
- (c) -5
- (d) 3

Ans ☒ A. 1
☒ B. 2
☒ C. 3
☒ D. 4

Question ID : 2233951794

Status : Answered

Chosen Option : C