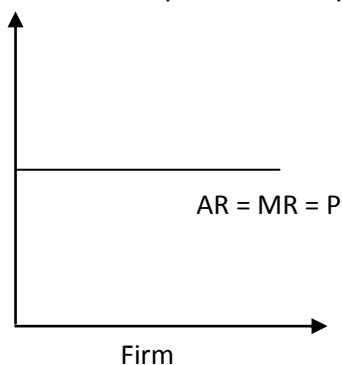


- (1) Ans. b
Explanation:
Because there is an inverse relationship between MP & MC.
- (2) Ans. c
Explanation:
In the Service sector, units with investment upto Rs. 10 lakh are called micro units and units between 10 lakh and Rs. 2 crore are called small enterprises and units with investment between Rs. 2 crore and Rs. 5 crore are called medium enterprises.
- (3) Ans. a
Explanation:
Since Disinvestment is a method of doing privatization.
- (4) Ans. b
Explanation:
Since in India a post office serves 7175 average persons.
- (5) Ans. b
Explanation:
Since the full fledged family programme was started in the year 1966 by the government of India.
- (6) Ans. d
- (7) Ans. c
Explanation:
Wheat, rice, bajra, jawar and maize.
- (8) Ans. b
- (9) Ans. a
- (10) Ans. c
- (11) Ans. c
Explanation:
A firm in perfectly competitive market is having perfectly elastic shape because price is decided by the industry and firms are price takers.



(12) Ans. c

(13) Ans. a

(14) Ans. d

Explanation:

NABARD – National Bank of Agriculture and Rural Development.

(15) Ans. b

(16) Ans. a

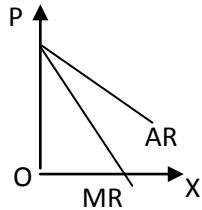
(17) Ans. a

(18) Ans. b

(19) Ans. a

Explanation:

In monopoly AR is above the MR curve is



(20) Ans. a

(21) Ans. c

(22) Ans. a

Explanation:

Saturation point means "point of full satisfaction." When MU becomes zero and TU becomes maximum that is known as "saturation point."

(23) Ans. b

Explanation:

MP curve intersects AP curve at its maximum point from above tends to decline.

(24) Ans. c

Explanation:

India's Population is 121.02 Crore. Such a big labour force, if properly utilized can yield high production and growth for the economy. This is known as Demographic Dividend.

(25) Ans. a

Explanation:

$$MR = AR \times \frac{e-1}{e}$$

(i) $e = 1$; $MR = 0$

(ii) $e > 1$; $MR = \text{Positive}$

-
- (iii) $e < 1$;MR = Negative
- (26) Ans. a
Explanation:
The elasticity of demand curve above the point of price-rigidity will be $e > 1$ (Highly Elastic)
- (27) Ans. a
Explanation:
Airport Authority of India manages 125 airports, including five international airports.
- (28) Ans. d
Explanation:
All of the above statements are correct to nullify the effect of increase CRR.
- (29) Ans. b
Explanation:
As Price effect = Income effect + Substitution effect.
- (30) Ans. b
Explanation:
Central Statistical organization is responsible for computation of national income.
- (31) Ans. a
Explanation:
India has a long cost line of 7517 Kms, 12 major ports & 200 minor ports.
- (32) Ans. a
Explanation:
As MC is additional cost incurred due to production of an additional unit .
- (33) Ans. d
Explanation:
If interest rate increase is than consumer don't want to buy automobile product and then demand for automobile decreases.
- (34) Ans. d
- (35) Ans. b
Explanation:
If price of a commodity is greater than cost then producer will increase the supply.
- (36) Ans. a
- (37) Ans. c
- (38) Ans. d
- (39) Ans. d
- (40) Ans. c

Explanation:
WTO has more scope than GATT.

(41) Ans. c

Explanation:
Because in Second Stage of production $A.P. > M.P.$

(42) Ans. b

(43) Ans. c

(44) Ans. c

(45) Ans. a

(46) Ans. d

Explanation:
According to J.B. Say economics is a "Science which deals with wealth".

(47) Ans. a

(48) Ans. d

Explanation:
In case of a decrease in unemployment: - A movement from a point inside the PPF to a point on the PPF. It means, the source are fully utilized because people get employment.

(49) Ans. c

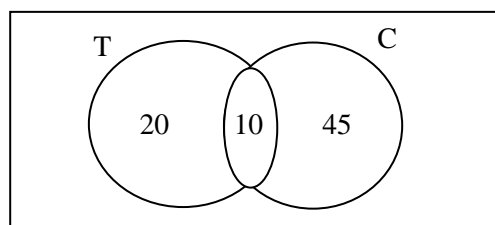
(50) Ans. a

Explanation:
Workforce is a part of labour force which is employed.

(51) Ans. b

(52) Ans. a

Explanation:



∴ 45 persons take coffee but not tea.

(53) Ans. c

(54) Ans. a

Explanation :

$$f(x) = (x-1)^3 + 2 \text{ (bijection function)}$$

$$\text{Let } (x-1)^3 + 2 = y$$

$$(x-1)^3 = y - 2$$

$$x = (y-2)^{1/3} + 1$$

$$\text{So } f^{-1} = (x-2)^{1/3} + 1$$

(55) Ans. d

(56) Ans. c

Explanation:

$$4x + 3y = 1 \quad \dots(i)$$

$$y = x + 5 \quad \dots(ii)$$

Putting the value of y in (i),

$$4x + 3(x+5) = 1$$

$$\Rightarrow 7x = -14 \Rightarrow x = -2$$

Substituting $x = -2$ in (ii) gives, $y = -2 + 5 = 3$

\therefore Point of intersection is $(-2, 3)$

Since lines are concurrent, point of intersection will satisfy $5y + bx = 3$

$$\therefore 5(3) + b(-2) = 3$$

$$\Rightarrow -2b = 3 - 15$$

$$\Rightarrow b = 6$$

(57) Ans. b

Explanation:

$$A = \frac{R}{r} [(1+r)^n - 1]$$

$$400000 = \frac{R}{0.10} [(1+0.10)^{10} - 1]$$

$$R = \text{Rs. } 25098.16$$

(58) Ans. c

Explanation:

$$x^2 + x + 2 = 0$$

$$\alpha + \beta = -1, \alpha\beta = 2$$

$$(\alpha + \beta)^2 = \alpha^2 + \beta^2 + 2\alpha\beta$$

$$1 = \alpha^2 + \beta^2 + 4$$

$$\alpha^2 + \beta^2 = -3$$

$$\frac{\alpha}{\beta} + \frac{\beta}{\alpha} = \frac{\alpha^2 + \beta^2}{\alpha\beta} = \frac{-3}{2}$$

(59) Ans. d

Explanation:

$$x^y = e^{x+y}$$

$$y \log x = x + y$$

$$y = \frac{x}{\log x - 1}$$

$$\frac{dy}{dx} = \frac{\log x - 2}{(\log x - 1)^2}$$

(60) Ans. b

Explanation:

$$\lim_{x \rightarrow 1} \frac{x^3 - 1}{x - 1} \quad \left(\frac{0}{0} \text{ form} \right)$$

$$= \lim_{x \rightarrow 1} \frac{(x-1)(x^2 + x + 1)}{(x-1)}$$

$$= \lim_{x \rightarrow 1} x^2 + x + 1$$

$$= (1)^2 + (1) + (1) = 3$$

(61) Ans. d

(62) Ans. a

Explanation

Any line perpendicular to the given line is : $3x + 2y + k = 0$.

It passes through (4, 5) $\Rightarrow 12 + 10 + k = 0 \Rightarrow k = -22$.

Required line is : $3x + 2y - 22 = 0$.

(63) Ans. b

Explanation:

$-2x + 3y \geq 6$ Cuts on X axis (-3, 0)

Y axis (0, 2)

and y is more than x so option (B) is Correct.

(64) Ans. a

Explanation:

$$\text{S.I.} = P \times 3 \times \frac{10}{100} \quad (\text{P is the Sum})$$

$$\text{C.I.} = P \left(1 + \frac{10}{100} \right)^3 - P$$

and difference of C.I. - S.I. = 155

$$P \left(1 + \frac{10}{100} \right)^3 - P - \frac{3P \times 10}{100} = 155$$

$$\boxed{P = \text{Rs.}5000}$$

(65) Ans. c

Explanation:

$$\begin{aligned} \text{The no. of ways} &= {}^4P_3 \times 4! \\ &= 24 \times 24 = 576 \end{aligned}$$

(66) Ans. b

Explanation:

$$\frac{P \times 15 \times 5}{100} - \frac{P \times 12 \times 4}{100} = 1350$$

$$75P - 48P = 135000$$

$$27P = 135000$$

$$P = \text{Rs. } 5000$$

(67) Ans. c

Explanation:

Total line can be made by $10C_2$

and $7C_2$ lines could not be drawn because points are collinear

So Remaining $\Rightarrow 10C_2 - 7C_2 + 1$

$$\Rightarrow 25$$

(68) Ans. b

Explanation:

$$2. nC_2 = 132$$

$$2. \frac{n(n-1)}{2} = 132$$

$$n^2 - n - 132 = 0$$

$$n = -11, +12$$

$$\text{So } n = 12$$

(69) Ans. d

Explanation:

$$r = -3$$

$$S_\infty = \frac{a}{1-r}, -1 < r < 1$$

(70) Ans. d

Explanation:

$$\text{Given } T_n = 2n - 1$$

$$S_n = \Sigma(2n - 1)$$

$$= 2 \Sigma n - n$$

$$= 2. \frac{n(n+1)}{2} - n = n^2$$

(71) Ans. a

(72) Ans. c

(73) Ans. c

(74) Ans. d

(75) Ans. a

(76) Ans. d

Frequency of class = 5

First change inclusive class 49-53 in to exclusive form

So class is 48.5-53.5

Class length = 53.5-48.5=5

Frequency density = $\frac{\text{Frequency of class}}{\text{Class length}}$

$$\text{Frequency density} = \frac{5}{5} = 1$$

(77) Ans. a

Explanation:

$$\text{Largest angle} = \frac{32}{90} \times 360 = 128^\circ$$

$$\text{Smallest angle} = \frac{17}{90} \times 360 = 68^\circ$$

$$\text{Difference} = 60^\circ$$

(78) Ans. d

Explanation : $\bar{x} = 3, MD_x = 0.3$

$$2\bar{x} + 3\bar{y} - 7 = 0$$

$$\bar{y} = \frac{1}{3}$$

$$MD \text{ of } y = \frac{|2|}{|3|} MD \text{ of } X = \frac{1}{5}$$

co-efficient of mean deviation of y about mean =

$$= \frac{M.D \text{ of } Y}{\bar{y}} \times 100 = 60$$

(79) Ans. c

(80) Ans. b

Explanation:

$$G.M. = (2 \times 2^2 \times 2^3 \times 2^4 \times 2^5 \times 2^6)^{1/6}$$

$$= 2^{7/2}$$

(81) Ans. a

The regression line : $y - \bar{y} = b_{yx} (x - \bar{x})$

$$\text{or } y - 8.8 = 1.24(x - 5.5)$$

$$\Rightarrow y = 1.24x + 1.98$$

(82) A bag contains 6 white and 4 red balls. If a person draws 2 balls and receive Rs. 20 and Rs. 40 for a each white and each red ball respectively, then his expected amount is

(a) Rs. 30

(b) Rs. 86

(c) Rs. 52

(d) Rs. 56

Ans. d

(83) Ans. b

(84) Ans. a

Explanation:

$$\mu - \sigma^2 = \frac{5}{8}$$

$$np - npq = \frac{5}{8}$$

$$np(1 - q) = \frac{5}{8}$$

$$np^2 = \frac{5}{8}$$

$$n = \frac{5}{8} \times 16 = 10$$

(85) Ans. d

(86) Ans. a

(87) Ans. a

Explanation:

$$\begin{aligned} \text{Income in 2010} &= \text{Income in 2005} \times \frac{\text{CPI in 2010}}{\text{CPI in 2005}} \\ &= 25000 \times \frac{220}{160} = 34375 \text{ Rs.} \end{aligned}$$

$$\text{So Dearness allowance} = 34375 - 25000 = 9375$$

(88) Ans. d

(89) Ans. a

$$\begin{aligned} P(\text{getting post}) &= P(\text{selected for at least one of the post}) \\ &= 1 - P(\text{selected for none post}) \\ &= 1 - P(A') P(B') P(C') \\ &= 1 - [1 - P(A)] [1 - P(B)] [1 - P(C)] \end{aligned}$$

$$\text{Where } P(A) = 1/3$$

$$P(B) = 1/4$$

$$P(C) = 1/2$$

$$\begin{aligned} \text{So } P(\text{getting post}) &= 1 - \left[1 - \frac{1}{3}\right] \left[1 - \frac{1}{4}\right] \left[1 - \frac{1}{2}\right] \\ &= 1 - \frac{2}{3} \times \frac{3}{4} \times \frac{1}{2} \\ &= \frac{3}{4} \end{aligned}$$

(90) Ans. b

Explanation :

$$\frac{L}{P} = \frac{\frac{\sum p_1 q_0}{\sum p_0 q_0} = \frac{20 + 5x}{15}}{\frac{\sum p_1 q_1}{\sum p_0 q_1} = \frac{10 + 2x}{7}} = \frac{28}{27}$$

$$= \frac{140 + 35x}{150 + 30x} = \frac{28}{27}$$

$$x = 4$$

(91) Ans. b

(92) Ans. d

Explanation:

$$\begin{aligned} \text{Degree of Freedom} &= n - 1 \\ &= 5 - 1 = 4 \end{aligned}$$

(93) Ans. c

Explanation:

$$P(A/A \cup B) = \frac{P[A \cap (A \cup B)]}{P(A \cup B)} = \frac{P(A)}{P(A \cup B)} = \frac{0.5}{0.6} = \frac{5}{6}$$

(94) Ans. d

Explanation : Here, $n=10$, $N= 85$, $\bar{x} = 9$, $s=4$

$$\begin{aligned} \text{S. E. } (\bar{x}) &= \frac{s}{\sqrt{n-1}} \times \sqrt{\frac{N-n}{N-1}} \\ &= \frac{4}{\sqrt{10-1}} \times \sqrt{\frac{85-10}{85-1}} \\ &= \frac{4}{\sqrt{9}} \times \sqrt{\frac{75}{84}} = \frac{4}{3} \times \sqrt{0.893} \\ &= 1.26 \end{aligned}$$

(95) Ans. c

(96) Ans. a

(97) Ans. b

Explanation : If two variables are uncorrelated (i.e. $r = 0$) then regression lines are perpendicular.

(98) Ans. b

Explanation : $r = \frac{\text{Cov}(x,y)}{SD_x \cdot SD_y}$

$$0.28 = \frac{7.6}{3 \times SD_y}$$

$$SD_y = 9.048$$

(99) Ans. b

Explanation:

Given x takes $X_1, X_2, \dots, X_{10}, -X_1, -X_2, \dots, -X_{10}$

$$\therefore \sum_{i=1}^{20} x_i = 0$$

and given $\sum_{i=1}^{20} x_i^2 = 40$

$$\begin{aligned} \therefore \text{S.D. of } x &= \sqrt{\frac{\sum_{i=1}^{20} x_i^2}{n} - \left(\frac{\sum_{i=1}^{20} x_i}{n}\right)^2} \\ &= \sqrt{\frac{40}{20} - \left(\frac{0}{20}\right)^2} = \sqrt{2} \end{aligned}$$

(100) Ans. b

Explanation:

We know that if $u = \frac{x-a}{b}$ and $v = \frac{y-c}{d}$, then $r_{xy} = \frac{bd}{|b||d|} r_{uv}$

$$u = -5x + 6 = \frac{x - 6/5}{(-1/5)}, v = \frac{(y - 20/3)}{(7/3)}$$

Here $b = -1/5$, $d = 7/3$

Since $b = -1/5$ and $d = 7/3$ are of opposite sign, so $r_{uv} = -r_{xy} = -0.58$.
