

1) How many shares of market value Rs.100 were sold for the amount of Rs.9980, the brokerage being 0.2% ?

- a) 100
- b) 99.80
- c) 99.60
- d) 99

2) How many shares of market value Rs.90 were sold for the amount of Rs.8991, the brokerage being 0.1% ?

- a) 100
- b) 99.9
- c) 99
- d) 99.8

3) Person sold 25 shares at market values Rs 20 per share and brokerage 0.2% . Then, how much amount did he received for transaction?.

- A) 500
- B) 501
- C) 502
- D) 499

4) Investor bought 60 shares at market value of Rs 150 each and brokerage 0.2%. How much sum he paid for transaction?

- a) 9000
- b) 9018
- c) 8982
- d) 8900

5) Ramesh invested Rs. 4000 in a Mutual Fund when its NAV was Rs 40 with no entry load. He received dividend Rs. 9 per unit. What is total dividend received by him?

- A) 360
- B) 900
- C) 100
- D) 9000

6) Hitesh invested Rs.3000 in a mutual fund when the NAV was Rs.60 with no entry load. Then number of units acquired by him is

- a) 180000
- b) 50
- c) 500
- d) 60

7) Anish bought 20 shares of face value Rs.100 each at the market value of Rs.60 each. If the annual dividend distributed was at the rate of 30% , then What is the rate of return on investment?

- a) 60%
- b) 30%
- c) 20%
- d) 50%

8) Sameer invested Rs 3000 per month for 2 month under SIP scheme. If the NAV for these months were Rs 60, 30 respectively, Then average acquisition cost per unit using rupee cost method is_____

- a) 30
- b) 60
- c) 40
- d) 50

9) Sameer invested Rs 1500 per month for 2 month under SIP scheme. If the NAV for these months were Rs 20, 25 respectively, Then average acquisition cost per unit using rupee cost method is _____

- A) 60
- B) 22
- C) 22.22
- D) 75

10) Sameer sold his units of certain mutual fund and received Rs 4995. If the NAV at the time of sale was Rs. 100 and exit load was 0.1%. Then number of units sold by him _____

- A) 50
- B) 49.90
- C) 49
- D) 49.50

11)) Investor bought 30 shares at market value of Rs 120 each and brokerage 0.4%. How much sum he paid for transaction?

- a) 3614
- b) 3614.4
- c) 3585.6
- d) 3600

12) Ramesh purchased 50 shares of company, which declared a dividend of 60% on its shares. If he received a dividend of Rs 1500. What is the face value of share?

- a) 50
- b) 5
- c) 10
- d) 100

13) Rajesh purchased 25 shares of company, which declared a dividend of 80% on its shares. If he received a dividend of Rs 160. What is the face value of share?

- a) 25
- b) 10
- c) 8
- d) 100

14)) Ramesh purchased 80 units of a mutual fund by investing Rs.5656. If the entry load was 1%, What is NAV on the date of purchase

- a) 80
- b) 80.1
- c) 70
- d) 70.7

15) Himesh invested Rs.4500 in a mutual fund when the NAV was Rs.50 with no entry load Then number of units acquired by him is

- a) 90
- b) 225000
- c) 50
- d) 900

16) Person sold 35 units of ICICI a mutual fund and received Rs.24500. If the exit load was 1.5%, What is NAV on the date of sale

- A) 710
- B) 689
- C) 710.66
- D) 689.65

17) Anil bought 50 shares of face value Rs.100 each at the market value of Rs.200 each. If the annual dividend distributed was at the rate of 35% , What is the rate of return on investment?

A) ROR = 1.70

B) ROR = 17

C) ROR = 1.75

D) ROR = 17.5

18) Roshan purchased 65.8 units of a mutual fund by investing Rs.4935 with no entry load. What is NAV on the date of purchase

a) 65.5

b) 70

c) 60

d) 75

19) Ramesh invested Rs. 6000 in a Mutual Fund when its NAV was Rs 120 with no entry load. He received dividend Rs. 15 per unit. What is total dividend received by him? ,

a) 750

b) 700

c) 650

d) 50

20) Investor bought 20 shares at market value of Rs 60 each and brokerage 0.1%. Than what is the sum he paid for transaction

A) 1201

B) 1200

C) 1198.8

D) 1201.2

21) How many shares of market value Rs.40 each, can be purchased for the amount of Rs.4020, the brokerage being 0.5%.

- a) 100
- b) 100.5
- c) 101
- d) 99

22) How many shares of market value Rs.80 were sold for the amount of Rs.3992, the brokerage being 0.2%

- A) 49.90
- B) 80
- C) 49.80
- D) 50

23) Amit invested Rs. 4000 in a Mutual Fund when its NAV was Rs 40 with no entry load. He received dividend Rs. 6 per unit. What is total dividend received by him?

- a) 6000
- b) 320
- c) 60
- d) 600

24) An investor sold his 120 units of certain mutual fund when NAV was Rs 25 . Then amount received by him is_____

- A) 300
- B) 120
- C) 3000
- D) 4.8

25) An investor sold his 80 units of certain mutual fund when NAV was Rs 65 . Then amount received by him is_____

- a) 520
- b) 5200
- c) 52000
- d) 52

26) Sameer invested Rs 2000 per month for 2 month under SIP scheme. If the NAV for these months were Rs 50, 40 respectively, Then average acquisition cost per unit using rupee cost method is_____

- a) 44.44
- b) 44
- c) 40
- d) 50

27) Hitesh invested Rs 4500 in mutual fund on 20/04/2019 at an NAV of Rs 50 and redeemed all the units on 20/10/2020 at an NAV Rs 70. There were no entry and exit load . Then total gain is_____

- a) 6300
- b) 4500
- c) 1800
- d) 180

28) Amit bought 30 shares of face value Rs.10 each at the market value of Rs.200 each. If the annual dividend distributed was at the rate of 40% , then his total dividend is _____

- a) 120
- b) 1200
- c) 300
- d) 400

- 1 _____ are the restriction or limitation imposed on the Linear Programming Problem.
- (a) variables (b) costs
(c) profits (d) constraints
- 2 The value of factorial 5 is ____
- (a) 120 (b) 60
(c) 720 (d) 30
- 3 A permutation of r objects out of n objects ($0 \leq r \leq n$), is an arrangement of r things out of n things ____
- (a) in a circle (b) in a line
(c) in a rectangle (d) in a triangle
- 4 If ${}^nP_3 = {}^nP_4$, Then the value of n is ____
- (a) 3 (b) 2
(c) 4 (d)
- 5 The seating arrangements for 5 students on 2 chairs can be made in ____
- (a) 20 ways (b) 15 ways
(c) 10 ways (d) 5 ways
- 6 The number of distinct permutations of the letters of the word APPLE is ____
- (a) 50 (b) 40
(c) 60 (d) 5
- 7 The number of distinct permutations of the letters of the word BANANA is ____
- (a) 60 (b) 40
(c) 50 (d) 6
- 8 If ${}^nP_5 = {}^nP_6$, Then the value of n is ____

- (a) 6 (b) 8
(c) 10 (d) 5
- 9 The total number of selections of 8 objects out of 10 objects is ____
(a) 50 (b) 45
(c) 5 (d) 2
- 10 The value of ${}^{12}C_4$ is ____
(a) 95 (b) 49
(c) 45 (d) 495
- 11 If ${}^nP_6 = {}^nP_7$, Then the value of n is ____
(a) 5 (b) 6
(c) 4 (d) 7
- 12 A club has 5 girls and 7 boys. If 4 persons out of these are to be selected, then the total number of choices if there is no restriction of gender is ____
(a) 495 (b) 95
(c) 45 (d) 195
- 13 A club has 5 girls and 7 boys. If 4 persons out of these are to be selected, then the total number of choices if 3 boys and 1 girl is to be selected is ____
(a) 75 (b) 180
(c) 175 (d) 17
- 14 There are 4 boys and 5 girls, out of whom, a committee of 2 boys and 3 girls is to be formed. If there is no restriction on the selection, then the number of ways this can be done is ____
(a) 40 (b) 50
(c) 10 (d) 60
- 15 There are 4 boys and 5 girls, out of whom, a committee of 2 boys and 3 girls is to be formed. If a particular boy is to be included, then the number of ways this can be done

is ____

- (a) 50
- (b) 30
- (c) 10
- (d) 40

16 The region of feasible solution in Linear Programming Problem graphical method is called ____

- (a) Infeasible region
- (b) unbounded region
- (c) Infinite region
- (d) Feasible region

17 The object function for a Linear Programming model is $3x + 2y$. If $x = 20$ and $y = 30$, then the value of the objective function is ____

- (a) 0
- (b) 50
- (c) 120
- (d) 60

18 The object function for a Linear Programming model is $4x + 2y$. If $x = 2$ and $y = 3$, then the value of the objective function is ____

- (a) 14
- (b) 15
- (c) 10
- (d) 0

19 Maximization of objective function in Linear Programming Problem means ____

- (a) value occurs at allowable set decision
- (b) highest value is chosen among allowable decision
- (c) highest value is not chosen among allowable decision
- (d) average value is chosen among allowable decision

20 The vertices of the positive region bounded by the inequalities:

$$2x + 3y \leq 6, \quad 5x + 3y \leq 15, \quad x \geq 0, \quad y \geq 0 \text{ is } \underline{\hspace{2cm}}$$

- (a) (0,2), (3,0), (0,5) and (3,0)
- (b) (0,2), (3,0) and (3,0) only
- (c) (0,2) and (3,0) only
- (d) only (0,5) and (3,0)

21 The feasible solution of a Linear Programming Problem belongs to ____

- (a) first and second quadrant only
- (b) first and third quadrant only

- (c) second quadrant only (d) first quadrant only
- 22 A vertices of bounded region of inequality $2x + y \leq 4$, $x \geq 0$, $y \geq 0$ is ____
- (a) (0,4) and (2,0) (b) only (0,4)
- (c) (0,4) and (3,0) (d) (0,4) and (1,0)
- 23 In Linear Programming Problem,
- (a) The objective function is linear. (b) The constraints are linear.
- (c) Both objective function and constraints are linear. (d) The objective function is linear but constraints are not.
- 24 In XY-plane, the values of X and Y in first quadrant are always ____
- (a) X positive and Y is negative. (b) Positive.
- (c) Y positive and X is negative. (d) Negative.
- 25 The region which satisfies all the constraints of the Linear Programming Problem is called as
- (a) feasible region (b) Infeasible region
- (c) convex region (d) concave region
- 26 In Linear Programming Problem, while drawing the graph on X- axis, the value of y is always ____
- (a) 0 (b) 1
- (c) 3 (d) 2
- 27 In Linear Programming Problem, while drawing the graph on Y- axis, the value of x is always ____
- (a) 3 (b) 0
- (c) 2 (d) 1
- 28 A club has 6 girls and 5 boys. If 4 persons out of these are to be selected, then the total number of choices if there is no restriction of gender is ____
- (a) 330 (b) 30

- (c) 230 (d) 130
- 29 A club has 6 girls and 5 boys. If 4 persons out of these are to be selected. If 3 boys and 1 girl is to be selected then the number of selection is ____
- (a) 10 (b) 60
(c) 20 (d) 70
- 30 A club has 6 girls and 5 boys. If 4 persons out of these are to be selected. If 2 boys and 2 girls is to be selected then the number of selection is ____
- (a) 150 (b) 250
(c) 50 (d) 100
- 31 The seating arrangements for 6 students on 3 chairs can be made in ____
- (a) 120 (b) 60
(c) 240 (d) 50
- 32 A club has 4 girls and 6 boys. If 3 persons out of these are to be selected, then the total number of choices if there is no restriction of gender is ____
- (a) 60 (b) 120
(c) 50 (d) 240
- 33 The value of 8C_4 is ____
- (a) 50 (b) 60
(c) 70 (d) 45
- 34 The object function for a Linear Programming model is $3x + 2y$. If $x = 5$ and $y = 6$, then the value of the objective function is ____
- (a) 27 (b) 30
(c) 18 (d) 10
- 35 The object function for a Linear Programming model is $3x + 2y$. If $x = 50$ and $y = 60$, then the value of the objective function is ____
- (a) 170 (b) 270

- (c) 100 (d) 50
- 36 The object function for a Linear Programming model is $3x + 2y$. If $x = 10$ and $y = 10$, then the value of the objective function is ____
- (a) 60 (b) 70
(c) 50 (d) 5
- 37 The seating arrangements for 7 students on 2 chairs can be made in ____
- (a) 42 (b) 52
(c) 10 (d) 5
- 38 If ${}^{2n}P_2 = {}^{2n}P_3$, Then the value of n is ____
- (a) $3/2$ (b) $1/2$
(c) 1 (d) 2
- 39 If ${}^nP_8 = {}^nP_9$, Then the value of n is ____
- (a) 9 (b) 8
(c) 10 (d) 7
- 40 The vertices of the positive region bounded by the inequalities:
 $4x + 8y \leq 16$, $x \geq 0$, $y \geq 0$ is ____
- (a) (0,2) only (b) (4,0) only
(c) (0,2) and (4,0) both (d) (0,2) and (3,0)
- 41 The vertices of the positive region bounded by the inequalities:
 $2x + 3y \leq 12$, $5x + 3y \leq 15$, $x \geq 0$, $y \geq 0$ is ____
- (a) (0,4),(6,0) and (0,5) (b) (0,4),(6,0),(0,5) and (3,0)
(c) (6,0),(0,5) and (3,0) (d) (0,4),(6,0) and (3,0)

- 1) Which of the following is not a merit of A. M.
 - a) It is always present inside the data
 - b) It has rigid definition
 - c) It is easy to understand
 - d) It is based on all the observations.
- 2) _____ has no rigid definition
 - a) mode b) Median c) A.M d) Q3
- 3) ----- is affected by extreme observations.
 - a) mode b) Median c) A.M d) Q3
- 4) Which diagram will you use to find the mode graphically?
 - a) Pie diagram b) Ogive curve c) Histogram d) line chart
- 5) Which diagram will you use to find the median graphically?
 - a) Pie diagram b) Ogive curve c) Histogram d) line chart
- 6) The most frequent observation in the data is called -----?
 - a) mode b) Median c) A.M d) Q1
- 7) The A. M. of the set of observations 3, 17, 8, 5, 2 is
 - a) 5 b) 6 c) 7 d) 8
- 8) The A. M. of the set of observations 4, 12, 5, 5, 4 is
 - a) 5 b) 6 c) 7 d) 8
- 9) The A. M. of the set of observations 5, 11, 3, 3, 8 is
 - a) 5 b) 6 c) 7 d) 8
- 10) The median of the set of values 2, 3, 5, 12, 17 is

a) 3 b) 5 c) 12 d) 17

11) The median of the set of values 43, 33, 25, 12, 11 is

a) 11 b) 12 c) 25 d) 33

12) The median of the set of values 18, 17, 12, 11, 10 is

a) 10 b) 12 c) 17 d) 18

13) The mode of the set of values 70, 70, 80, 80, 80 is

a) 2 b) 3 c) 70 d) 80

14) The mode of the set of values 12, 8, 12, 7, 12 is

a) 3 b) 7 c) 8 d) 12

15) The mode of the set of values 2, 5, 5, 13, 5 is

a) 2 b) 3 c) 5 d) 13

16) What is the A.M. of the following frequency distribution?

C.I	0-10	10-20
Frequency	2	3

a) 11 b) 12 c) 13 d) 14

17) What is the A.M. of the following frequency distribution?

C.I	0-100	100-200
Frequency	2	3

a) 100 b) 110 c) 120 d) 130

18) What is the A.M. of the following frequency distribution?

C.I	0-20	20-40
Frequency	6	4

a)15 b) 16c) 17 d) 18

19) If all obsrvations are arranged in ascending order of their values then the obervation which lies at the centre is called

a) Mean b) mode c) median d) quartile

20) Suppose A: Sometimes A. M is absurd

B: Median depends upon all observations

Then

- a) A is true and B is true.
- b) A is false and B is false.
- c) A is true and B is false.
- d) A is false and B is true.

21) Suppose A: Median is affected by extrem observation

B: Mode is affected by extrem observation

Then

- a) A is true and B is true.
- b) A is false and B is false.
- c) A is true and B is false.
- d) A is false and B is true.

22) In usual notations the formula for mode of frequency distribution is

a) $\frac{\sum fx}{\sum f}$

b) $l_1 + \frac{(l_2 - l_1)(f_1 - f_0)}{(f_1 - f_0) + (f_1 - f_2)}$

c) $l_1 + \frac{(l_2 - l_1)(\frac{N}{2} - cf)}{f}$

d) $\sqrt{\frac{\sum f(x - \bar{x})^2}{\sum f}}$

23) In usual notations the formula for A. M of frequency distribution is

a) $\frac{\sum fx}{\sum f}$

b) $l_1 + \frac{(l_2 - l_1)(f_1 - f_0)}{(f_1 - f_0) + (f_1 - f_2)}$

c) $l_1 + \frac{(l_2 - l_1)(\frac{N}{2} - cf)}{f}$

d) $\sqrt{\frac{\sum f(x - \bar{x})^2}{\sum f}}$

24) In usual notations the formula for Median of frequency distribution is

a) $\frac{\sum fx}{\sum f}$

b) $l_1 + \frac{(l_2 - l_1)(f_1 - f_0)}{(f_1 - f_0) + (f_1 - f_2)}$

c) $l_1 + \frac{(l_2 - l_1)(\frac{N}{2} - cf)}{f}$

d) $\sqrt{\frac{\sum f(x-\bar{x})^2}{\sum f}}$

25) A box contains 4 white, 3 black and 2 red balls. If two balls are selected at random from the box, what is the probability of getting both are black balls?

a) $\frac{1}{12}$ b) $\frac{2}{9}$ c) $\frac{5}{9}$ d) $\frac{5}{12}$

26) A box contains 4 white, 3 black and 2 red balls. If two balls are selected at random from the box, what is the probability of getting one white and one red ball ?

a) $\frac{1}{12}$ b) $\frac{2}{9}$ c) $\frac{5}{9}$ d) $\frac{5}{12}$

27) A box contains 4 white, 3 black and 2 red balls. If two balls are selected at random from the box, what is the probability of getting exactly one white ball in the selection?

a) $\frac{1}{12}$ b) $\frac{2}{9}$ c) $\frac{5}{9}$ d) $\frac{5}{12}$

28) A box contains 4 white, 3 black and 2 red balls. If two balls are selected at random from the box, what is the probability of getting none of the balls is black?

- a) $\frac{1}{12}$ b) $\frac{2}{9}$ c) $\frac{5}{9}$ d) $\frac{5}{12}$

29) A box contains 4 white, 3 black and 2 red balls. If two balls are selected at random from the box, what is the probability of getting both are white balls?

- a) $\frac{1}{6}$ b) $\frac{2}{9}$ c) $\frac{5}{9}$ d) $\frac{5}{12}$

30) A box contains 4 white, 3 black and 2 red balls. If two balls are selected at random from the box, what is the probability of getting both are red balls?

- a) $\frac{1}{36}$ b) $\frac{2}{9}$ c) $\frac{5}{9}$ d) $\frac{5}{12}$

31) A box contains 4 white, 3 black and 2 red balls. If two balls are selected at random from the box, what is the probability of getting none of the balls is white?

- a) $\frac{1}{12}$ b) $\frac{2}{9}$ c) $\frac{5}{9}$ d) $\frac{5}{18}$

32) A box contains 4 white, 3 black and 2 red balls. If two balls are

selected at random from the box, what is the probability of getting none of the balls is red ?

- a) $\frac{1}{12}$ b) $\frac{2}{9}$ c) $\frac{5}{9}$ d) $\frac{7}{12}$

33) A box contains 4 white, 3 black and 2 red balls. If two balls are selected at random from the box, what is the probability of getting exactly one black ball in the selection?

- a) $\frac{1}{12}$ b) $\frac{2}{9}$ c) $\frac{1}{2}$ d) $\frac{5}{12}$

34) A box contains 4 white, 3 black and 2 red balls. If two balls are selected at random from the box, what is the probability of getting exactly one red ball in the selection?

- a) $\frac{1}{12}$ b) $\frac{2}{9}$ c) $\frac{7}{18}$ d) $\frac{5}{12}$

35) A box contains 4 white, 3 black and 2 red balls. If two balls are selected at random from the box, what is the probability of getting one white and one black ball ?

- a) $\frac{1}{12}$ b) $\frac{1}{3}$ c) $\frac{5}{9}$ d) $\frac{5}{12}$

36) A box contains 4 white, 3 black and 2 red balls. If two balls are selected at random from the box, what is the probability of

getting one black and one red ball ?

- a) $\frac{1}{12}$ b) $\frac{1}{6}$ c) $\frac{5}{9}$ d) $\frac{5}{12}$

37) A card is drawn at random from a well-shuffled pack of 52 cards.
What is the probability that the card drawn is a spade card ?

- a) $\frac{1}{4}$ b) $\frac{1}{2}$ c) $\frac{4}{13}$ d) $\frac{3}{13}$

38) A card is drawn at random from a well-shuffled pack of 52 cards.
What is the probability that the card drawn is a hearts card ?

- a) $\frac{1}{4}$ b) $\frac{1}{2}$ c) $\frac{4}{13}$ d) $\frac{3}{13}$

39) A card is drawn at random from a well-shuffled pack of 52 cards.
What is the probability that the card drawn is a red card ?

- a) $\frac{1}{4}$ b) $\frac{1}{2}$ c) $\frac{4}{13}$ d) $\frac{3}{13}$

40) A card is drawn at random from a well-shuffled pack of 52 cards.
What is the probability that the card drawn is a black card ?

- a) $\frac{1}{4}$ b) $\frac{1}{2}$ c) $\frac{4}{13}$ d) $\frac{3}{13}$

41) A card is drawn at random from a well-shuffled pack of 52 cards.
What is the probability that the card drawn is a picture card?

- a) $\frac{1}{4}$ b) $\frac{1}{2}$ c) $\frac{4}{13}$ d) $\frac{3}{13}$

42) A card is drawn at random from a well-shuffled pack of 52 cards.

What is the probability that the card drawn is a face card ?

- a) $\frac{1}{4}$ b) $\frac{1}{2}$ c) $\frac{4}{13}$ d) $\frac{3}{13}$

43) A card is drawn at random from a well-shuffled pack of 52 cards.

What is the probability of getting spade king?

- a) $\frac{1}{4}$ b) $\frac{1}{52}$ c) $\frac{4}{13}$ d) $\frac{3}{13}$

44) A card is drawn at random from a well-shuffled pack of 52 cards.

What is the probability that the card drawn is Ace card ?

- a) $\frac{1}{4}$ b) $\frac{1}{2}$ c) $\frac{1}{13}$ d) $\frac{3}{13}$

45) A card is drawn at random from a well-shuffled pack of 52 cards.

What is the probability that the card drawn is Ace card ?

- a) $\frac{1}{4}$ b) $\frac{1}{2}$ c) $\frac{1}{13}$ d) $\frac{3}{13}$

46) A card is drawn at random from a well-shuffled pack of 52 cards.

What is the probability that the card drawn is king card ?

- a) $\frac{1}{4}$ b) $\frac{1}{2}$ c) $\frac{1}{13}$ d) $\frac{3}{13}$

47) Tickets numbered from 1 to 100 are well-shuffled and a ticket is drawn. What is the probability that the drawn ticket bearing a number divisible by 23

- a) $\frac{4}{25}$ b) $\frac{1}{2}$ c) $\frac{1}{10}$ d) $\frac{1}{25}$

48) Tickets numbered from 1 to 100 are well-shuffled and a ticket is drawn. What is the probability that the drawn ticket bearing a an odd number?

- a) $\frac{4}{25}$ b) $\frac{1}{2}$ c) $\frac{1}{10}$ d) $\frac{1}{25}$

49) Tickets numbered from 1 to 100 are well-shuffled and a ticket is drawn. What is the probability that the drawn ticket bearing a number 5 or multiple of 19?

- a) $\frac{6}{25}$ b) $\frac{1}{2}$ c) $\frac{1}{10}$ d) $\frac{1}{25}$

50) Tickets numbered from 1 to 100 are well-shuffled and a ticket is drawn. What is the probability that the drawn ticket bearing a number which is a perfect square ?

- a) $\frac{4}{25}$ b) $\frac{1}{2}$ c) $\frac{1}{10}$ d) $\frac{1}{25}$

51) If A and B are two events such that $P(A) = 1/3$, $P(B) = 1/2$ and $P(A \cap B) = 1/6$ find $P(B/A)$.

- a) $\frac{1}{2}$ b) $\frac{1}{3}$ c) $\frac{2}{3}$ d) $\frac{1}{5}$

52) If A and B are two events such that $P(A) = 1/3$, $P(B) = 1/2$ and $P(A \cap B) = 1/6$ find $P(A/B)$.

- a) $\frac{1}{2}$ b) $\frac{1}{3}$ c) $\frac{2}{3}$ d) $\frac{1}{5}$

53) If A and B are two events such that $P(A) = 1/3$, $P(B) = 1/2$ and $P(A \cap B) = 1/6$ find $P(A \cup B)$

- a) $\frac{1}{2}$ b) $\frac{1}{3}$ c) $\frac{2}{3}$ d) $\frac{1}{5}$

54) A problem is given to three students A, B, C whose chances of solving it are $1/2, 1/3, 1/4$ respectively. Find the probability that the problem will be solved.

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

55) A problem is given to three students A, B, C whose chances of solving it are $1/2, 1/3, 1/4$ respectively. Find the probability that the problem will not be solved.

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

56) If $P(A) = \frac{2}{3}$ then what is $P(A')$?

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

57) If $P(A) = \frac{1}{3}$ then what is $P(A')$?

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

58) If $P(A) = \frac{1}{4}$ then what is $P(A')$?

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

59) A uniform die with its faces numbered 1 to 6 is thrown. Find the probability of getting 6 on the uppermost face.

- a) $\frac{1}{6}$ b) $\frac{5}{6}$ c) $\frac{1}{3}$ d) $\frac{2}{3}$

60) A uniform die with its faces numbered 1 to 6 is thrown. Find the probability of getting an odd number on the uppermost face.

- a) $\frac{1}{6}$ b) $\frac{5}{6}$ c) $\frac{1}{2}$ d) $\frac{2}{3}$

61) A uniform die with its faces numbered 1 to 6 is thrown. Find the probability of getting a number less than 5 on the uppermost face.

- a) $\frac{1}{6}$ b) $\frac{5}{6}$ c) $\frac{1}{3}$ d) $\frac{2}{3}$

62) A uniform die with its faces numbered 1 to 6 is thrown. Find the probability of getting a perfect square on the uppermost face.

- a) $\frac{1}{6}$ b) $\frac{5}{6}$ c) $\frac{1}{3}$ d) $\frac{2}{3}$

63) You are the Manager of a large Tobacco processing unit, located in Coastal Belt of a State. From past experience it is known that the probability of having

- a) heavy rains leading to poor Tobacco Crop is 0.20
- b) cyclone leading to poor Tobacco Crop is 0.10
- c) heavy rains and cyclone leading to poor Tobacco Crop is 0.05

What is the probability that in the coming season the Tobacco Crop is likely to be poor either due to heavy rains or cyclone?

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

64) The probability that a person stopping at a petrol pump will ask for petrol is 0.80, the probability that he will ask for water is 0.70 and the probability that he will ask for both is 0.65. Find the probability that a person stopping at this petrol pump will ask for either petrol or water.

a) 0.85 b) 0.75 c) 0.65 d) 0.15

65) The probability that a person stopping at a petrol pump will ask for petrol is 0.80, the probability that he will ask for water is 0.70 and the probability that he will ask for both is 0.65. Find the probability that a person stopping at this petrol pump will ask for neither petrol nor water.

a) 0.85 b) 0.75 c) 0.65 d) 0.15

66) In a group of 100 persons, 50 like Western music, 40 like Indian music and 10 like both. Find the probability that a person selected at random from this group likes only one type of the music.

a) 0.80 b) 0.70 c) 0.60 d) 0.20

67) In a group of 100 persons, 50 like Western music, 40 like Indian music and 10 like both. Find the probability that a person selected at random from this group likes at least one of the two types of music.

a) 0.80 b) 0.70 c) 0.60 d) 0.20

68) In a group of 100 persons, 50 like Western music, 40 like Indian music and 10 like both. Find the probability that a person selected at random from this group does not like any of the types of music.

- a) 0.80 b) 0.70 c) 0.60 d) 0.20

69) If the probability densities function of a random variable X is

X	1	2	3
P(X)	0.2	0.3	a

Then what is the value of a?

- a) 0.80 b) 0.70 c) 0.60 d) 0.50

70) If the probability densities function of a random variable X is

X	2	3	4
P(X)	0.1	0.1	a

Then what is the value of a?

- a) 0.80 b) 0.70 c) 0.60 d) 0.50

71) If the probability densities function of a random variable X is

X	5	6	7
P(X)	0.1	0.3	a

Then what is the value of a?

- a) 0.80 b) 0.70 c) 0.60 d) 0.50

72) If the probability densities function of a random variable X is

X	1	2	3
P(X)	0.2	0.3	0.5

Then what is the value of $E(X)$?

- a) 0.3 b) 0.9 c) 1.6 d) 2.3

73) If the probability densities function of a random variable X is

X	2	3	4
P(X)	0.1	0.1	0.8

Then what is the value of $E(X)$?

- a) 3.7 b) 2.7 c) 1.7 d) 0.7

74) If the probability densities function of a random variable X is

X	5	6	7
P(X)	0.1	0.3	0.6

Then what is the value of $E(X)$?

- a) 6.3 b) 6.4 c) 6.5 d) 6.6

75) What is the optimum decision from the following pay-off table by using the Maxi-max criteria?

Acts Events	A1	A2	A3
E1	10	15	12
E2	11	3	2

- a) A1 b) A2 c) A3 d) no optimum decision

76) What is the optimum decision from the following pay-off table by using the Maxi-max criteria?

Acts Events	A1	A2	A3
E1	8	7	12
E2	4	2	3

- a) A1 b) A2 c) A3 d) no optimum decision

77) What is the optimum decision from the following pay-off table by using the Maxi-max criteria?

Acts Events	A1	A2	A3
E1	8	14	2
E2	10	7	12

- a) A1 b) A2 c) A3 d) no optimum decision

78) What is the optimum decision from the following pay-off table by using the Maxi-min criteria?

Acts Events	A1	A2	A3
E1	10	15	12
E2	11	3	2

- a) A1 b) A2 c) A3 d) no optimum decision

79) What is the optimum decision from the following pay-off table by using the Maxi-min criteria?

Acts Events	A1	A2	A3
E1	8	7	12
E2	4	2	3

- a) A1 b) A2 c) A3 d) no optimum decision

80) What is the optimum decision from the following pay-off table by using the Maxi-min criteria?

Acts Events	A1	A2	A3
E1	8	14	2
E2	10	7	12

- a) A1 b) A2 c) A3 d) no optimum decision

81) What is the optimum decision from the following pay-off table by using the Laplace criteria?

Acts Events	A1	A2	A3
E1	10	15	12
E2	11	3	2

- a) A1 b) A2 c) A3 d) no optimum decision

82) What is the optimum decision from the following pay-off table by using the Laplace criteria?

Acts Events	A1	A2	A3
E1	8	7	12
E2	4	2	3

- a) A1 b) A2 c) A3 d) no optimum decision

83) What is the optimum decision from the following pay-off table by using the Laplace criteria?

Acts Events	A1	A2	A3
E1	8	14	2
E2	10	7	12

- a) A1 b) A2 c) A3 d) no optimum decision

84) What is the optimum decision from the following pay-off table by using the Mini-max Regret criteria?

Acts Events	A1	A2	A3
E1	10	15	12
E2	11	3	2

- a) A1 b) A2 c) A3 d) no optimum decision

85) What is the optimum decision from the following pay-off table by using the Mini-max Regret criteria?

Acts Events	A1	A2	A3
E1	8	7	12
E2	4	2	3

- a) A1 b) A2 c) A3 d) no optimum decision

86) What is the optimum decision from the following pay-off table by using the Mini-max Regret criteria?

Acts Events	A1	A2	A3
E1	8	14	2
E2	10	7	12

- a) A1 b) A2 c) A3 d) no optimum decision

86) What is the optimum profit for the following pay-off table?

<div> <div>Events</div> <div>Acts</div> <div>Prob.</div> </div>		A1	A2
E1	0.2	1	2
E2	0.8	3	2

- a) 2 b) 2.2 c) 2.4 d) 2.6

87) What is the optimum profit for the following pay-off table?

<div> <div>Events</div> <div>Acts</div> <div>Prob.</div> </div>		A1	A2
E1	0.4	1	2
E2	0.6	3	2

- a) 2 b) 2.2 c) 2.4 d) 2.6

88) What is the optimum profit for the following pay-off table?

<div> <div>Events</div> <div>Acts</div> <div>Prob.</div> </div>		A1	A2
E1	0.7	1	2
E2	0.3	3	2

- a) 2 b) 2.2 c) 2.4 d) 2.6

89) What are the alternative courses of actions available to the decision maker are called?

- a) Acts b) Events c) objectives d) pay-off

90) What are the all possible events which are beyond the control of decision maker are called?

- a) Acts b) states of nature c) objectives d) pay-off

91) Which of the following the decision maker should define while seeking solution of the problem?

a) Acts b) Events c) objectives d) pay-off

92) What conditional values correspond to each combination of states of nature and course of action?

a) Acts b) Events c) objectives d) pay-off

93) What is the optimum decision from the following regret table using EOL method?

<div>Events Prob.</div> <div>Acts</div>		A1	A2
E1	0.2	1	2
E2	0.8	3	2

a) A1 b) A2 c) both A1 and A2 d) no optimum decision

94) What is the optimum decision from the following regret table using EOL method?

<div> <div>Events</div> <div>Acts</div> <div>Prob.</div> </div>		A1	A2
E1	0.4	1	2
E2	0.6	3	2

- a) A1 b) A2 c) both A1 and A2 d) no optimum decision

95) What is the optimum decision from the following regret table using EOL method?

<div> <div>Events</div> <div>Acts</div> <div>Prob.</div> </div>		A1	A2
E1	0.7	1	2
E2	0.3	3	2

- a) A1 b) A2 c) both A1 and A2 d) no optimum decision

96) A hawker can sell 50 or 100 articles every day. The profit per each sold article is Rs. 5 and the loss per each unsold article is Rs. 1. Find the optimum decision for the problem using the Maxi-max criteria.

a) 50 articles

b) 100 articles

c) any decision is optimum d) neither of the decisions are optimum

97) A hawker can sell 50 or 100 articles every day. The profit per each sold article is Rs. 5 and the loss per each unsold article is Rs. 1. Find the optimum decision for the problem using the Maxi-min criteria.

a) 50 articles

b) 100 articles

c) any decision is optimum d) neither of the decisions are optimum

98) A hawker can sell 50 or 100 articles every day. The profit per each sold article is Rs. 5 and the loss per each unsold article is Rs. 1. Find the optimum decision for the problem using the Laplace criteria.

a) 50 articles

b) 100 articles

c) any decision is optimum d) neither of the decisions are optimum

99) A hawker can sell 50 or 100 articles every day. The profit per each sold article is Rs. 5 and the loss per each unsold article is Rs. 1. Find the optimum decision for the problem using the Mini-max regret criteria.

- a) 50 articles
- b) 100 articles
- c) any of the decisions is optimum
- d) neither of the decisions are optimum

100) What is the Range of the set of observations 110, 100, 108, 93, 95?

- a) 13 b) 15 c) 17 d) 19

101) What is the Range of the set of observations 705, 703, 715, 696, 700?

- a) 13 b) 15 c) 17 d) 19

102) What is the Range of the set of observations 49, 50, 38, 37, 40 ?

- a) 13 b) 15 c) 17 d) 19

103) What is the coefficient of range for the set of observations 10, 15,

30 ?

a) 0.4 b) 0.5 c) 0.6 d) 0.7

104) What is the Coefficient of range for the set of observations 5, 20, 35?

a) 0.55 b) 0.65 c) 0.75 d) 0.85

105) What is the Coefficient of range for the set of observations 80,90,120 ?

a) 0.1 b) 0.2 c) 0.3 d) 0.4

106) If the A.M of the distribution is 20 and the standard deviation is 5 then what is the coefficient of the variation for the distribution?

a) 10 b) 15 c) 20 d) 25

107) If the A.M of the distribution is 25 and the standard deviation is 4 then what is the coefficient of the variation for the distribution?

a) 10 b) 15 c) 16 d) 25

108) If the A.M of the distribution is 10 and the standard deviation is 2

then what is the coefficient of the variation for the distribution?

- a) 10 b) 15 c) 20 d) 25

109) What is the mode of the following frequency distribution?

C.I	0-10	10-20
Frequency	2	3

- a) 11.5 b) 12.5 c) 13.5 d) 14.5

110) What is the mode of the following frequency distribution?

C.I	0-100	100-200
Frequency	2	3

- a)100 b) 110 c) 125 d) 130

111) What is the mode of the following frequency distribution?

C.I	0-20	20-40
Frequency	6	4

- a) 7.5 b) 7.6c) 7.7 d) 7.8

112) The average weight of group of 40 boys is 50 kg and that of group of 60 girls is 40 kg. What is the average weight if all of them are combined together?

a) 41 b) 42 c) 43 d) 44

113) The average salary of group of 40 boys is 5000 Rs. and that of group of 60 girls is 4000 Rs. What is the average salary if all of them are combined together?

a) 4100 b) 4200 c) 4300 d) 4400

114) The average marks of group of 40 boys is 60 and that of group of 60 girls is 70. What is the average weight if all of them are combined together?

a) 60 b) 62 c) 64 d) 66

115) If the lower and upper quartiles of some distribution are 50 and 78 then what is the quartile deviation of the distribution?

a) 10 b) 12 c) 14 d) 16

116) If the lower and upper quartiles of some distribution are 132 and 140 then what is the quartile deviation of the distribution?

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

117) If the lower and upper quartiles of some distribution are 85 and 97 then what is the quartile deviation of the distribution?

a) 4 b) 6 c) 8 d) 12

118) What is the mean deviation of the set of observations 4, 6, 14?

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

119) What is the mean deviation of the set of observations 1, 5, 6?

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

120) What is the mean deviation of the set of observations 12, 15, 18?

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

