Paper Code - 3009/3109

B.Com. Semester-I (Old/New)
July - Sept -2021
Basic Statistics (Theory)

કુલ સમય :– ૬૦ મીનીટ કુલ પ્રશ્નો : ૫૦ વિદ્યાર્થીએ ટીક કરવાના પ્રશ્નો : ૩૫

નોંધ : વિદ્યાર્થીએ માત્ર ૩૫ પ્રશ્નો જ ટીક કરવાના રહેશે. જો વધારે ટીક કરેલ હશે તો પ્રથમ ૩૫ પ્રશ્નો જ ગણતરીમાં લેવામાં આવશે.

1. What is the value of a total financial correlation?
   a) 0.5 b) 1 c) -1 d) -0.5
2. If $\sum d^2 = 0$ in the number correlation, what is r =?
   a) 1 b) -1 c) 0 d) More than 1
3. The value of correlation r is between whom?
   a) 0 to 1 b) 0 to -1 c) -1 to +1 d) More than 1
4. What is r if all the points in a diagonal figure are in a line?
   a) -1 b) +1 c) ± 1 d) 0.5
5. What happens if two variables are independent?
   a) 1 b) -1 c) 0 d) ± 1
6. If the number correlation is 0.95 and the sum of the squares of the two numerical differences is 4, what is the number of observations?
   a) 9 b) 10 c) 12 d) 8
7. What is the value of $\sum d^2$ if the numbers of both x and y variables are in the same order?
   a) 1 b) -1 c) 0 d) More than 1
8. For a binary model, n = 16, r = 0.8. So, what is the potential fault of the correlator?
   a) 0.6 b) 0.06 c) 1 d) -0.06
9. What is the correlation if the correlation between two variables is 0.5 and if each observation is doubled?
   a) 0 b) -0.5 c) 0.5 d) 1
10. If $\sum x^2 = 30$, $\sum y^2 = 34$, $\sum xy = 30$ then what is r?
    a) 0.94 b) 1 c) -0.94 d) 0
11. If n = 10, $\sum dx = 1$, $\sum dy = -3$, $\sum dx^2 = 203$, $\sum dy^2 = 159$, $\sum dxdy = 178$ then what is r?
    a) 1 b) 0.995 c) -1 d) -0.995
12. What are the boundaries of the correlation of the aggregate?
    a) r $\pm$ P.E b) r + P.E c) r – PE d) r to 0
13. What is always the sum of the order differences in the number correlation?
    a) 10 b) 1 c) -1 d) 0
14. Who can represent the change in circulation by changing the unit in x variable?
    a) bxy b) r c) byx d) byx
15. If fixed relatives have money, how do they get it?
    a) Wealth b) Debt c) Both d) None
16. What is the correlation 'r' of fixed relations?
    a) Mean b) Median c) Mode d) Variance
17. If byx = 0.8, bxy = 0.2 then what is r?
    a) 0.8 b) 0.04 c) 0.4 d) 1
18. byx = -1.7 and bxy = -0.7 for two related variables Is this statement true?
    a) False b) True c) Both d) None
19. What are two fixed relationship lines intersecting?
    a) $\bar{x}$ b) $\bar{y}$ c) r d) $\bar{x}\bar{y}$
20. Two fixed relationship lines are perpendicular to each other so what is the r between them?
    a) 1 b) 0 c) -1 d) -0.9
21. If the angle between the fixed relation lines for two variables is greater, what is the correlation between them?
    a) More b) Less c) Fixed d) None of this
22. What is the product of the two fixed relations?
    a) r b) byx c) bxy d) r^2
23. What is the value of y for line y = -2.41x +13.23 and x = 1?
    a) 10.82 b) 10 c) 12.82 d) 12
24. If $\sum x^2 = 2.44$, n = 10, $\sum xy = 17$ then what is byx?
    a) 0.69 b) 0.069 c) 0.8 d) 1.8
25. If $\sum x^2 = 196$, $\sum xy = 147$ then what is byx?
    a) 0.73 b) 0.80 c) 0.75 d) 0.85

26. If two lines $81x - 45y = 198$ and $100x - 45y = 1755$ then what is x?
a) 80 b) 81.7 c) 81 d) 85
27. If $\bar{x} = 72$, $\bar{y} = 15$, byx = 0.22, what is the constant line of y on x?
a) Y= -0.84 + 0.22x b) y= -80 + 20x c) x= -0.84 + 0.22y d) y = 0.20 +8x
28. If two fixed relations are 0.8 and 0.2, what is r?
a) 0.5 b) 0.45 c) 0.4 d) 0.52
29. What is the value of s_1 if the exponential simplification method has $\propto = 0.4$, $x_1 = 210$ and the starting prediction is 200?
a) 205 b) 204 c) 210 d) 211
30. Find the simplification constant $\propto$ in the method of exponential equations $\hat{X}3 = 116.33$, $S_3 = 110.5$, $T_3 = 2.5$.
a) $\propto = 0.3$ b) $\propto = 0.7$ c) $\propto = 0.6$ d) $\propto = -0.3$
31. How many valid equations are needed to apply a neat equation?
a) 1 b) 3 c) 2 d) 4
32. If $\propto = 0.4$, $S_1 = 108$, $S_0 = 100$ then what is the value of T_1?
a) 4.2 b) -3.2 c) -4.2 d) 3.2
33. Find $\hat{X}_1$ if $\propto = 0.2$, $S_1 = 208$, $T_1 = 8$.
a) 211.2 b) -211.2 c) 209 d) -209
34. What is the range of load given to different observations in the method of exponential simplification?
a) Parallel b) Ratio c) Positive d) Fixed
35. What emphasis is placed on each observation of business forecasting?
a) Opposite b) Equal c) Is not given d) Positive
36. Find $\hat{X}_1$ if $\propto = 0.2$, $S_1 = 200$, $T_1 = 4$.
a) 215 b) 217 c) 216 d) 220
37. If $1 - \propto/\propto = 4$ then what is $\propto$?
a) 0.4 b) 0.10 c) 0.3 d) 0.2
38. Find S_2 if $S_1 = 108$, $\propto = 0.4$ and $X_2 = 108$.
a) 117.6 b) 16.6 c) 118 d) 118.6
39. In what year is the census conducted in India?
a) 20 b) 15 c) 10 d) 50
40. If the number of children born and living in a village is 120 and the number of women in reproductive age is 1500, then find the simple fertility rate.
a) 90 b) 80 c) 70 d) 100
41. Which population is used to find a simple birth rate?
a) Total Male b) Children c) Total Population d) Aged
42. What is the simple mortality rate if the total population is 50,000 out of 1760 deaths in a year?
a) 40 b) 35 c) 30 d) 35.2
43. If the number of deaths in a city is 1560 and the simple death rate is 25.65 then what is the total population of that city?
a) 60819 b) 50819 c) 40819 d) 50,000
44. What type of mortality rate is used to compare the health of two cities?
a) Simple b) Standardized c) Both d) None
45. If someone has a simple birth rate of 24 in the city and 12000 children born in the city, then find the total population of the city.
a) 25 b) 30 c) 35 d) 24
46. What is the GFR for a city if the SFR is 65, 115, 120, 100, 65, 35, 15?
a) 73 b) 85 c) 75 d) 73.57
47. If $\sum$SFR = 445 and I = 5 then what is TFR?
a) 2225 b) 2000 c) 2200 d) 2500
48. If $\sum$FSR = 454 and i = 5 then what is TFR?
a) 2200 b) 2270 c) 2250 d) 2300
49. If the simple fertility rate is 77.4 and the number of females is 90,000, how many children will be born?
a) 6966 b) 6000 c) 7000 d) 6500
50. In a city with a population of 2.4 million, there are 920 women for every thousand men. What is the number of women?
a) 1200,000 b) 1100,000 c) 10,00,000 d) 11,04,000