

## B.Com Sixth Semester – Advance Statistics

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\* Required

1. Email \*

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### Question Paper

2. Q) If variance of  $(x)=25$ , and variance of  $(y)=49$ ,  $r=0.5$  then  $\sigma(y)$  is 2 points

*Mark only one oval.*

- 6
- 7
- 8
- 8.5

3. Q) If  $dy = 279$  then what is  $dy^2$  ? 2 points

*Mark only one oval.*

- 82641
- 77841
- 39138
- 42899

4. Q) If  $Ax = 10$  ;  $Ay = 90$  ;  $\sigma_x = 3$  ;  $\sigma_y = 12$  ;  $r = .8$ , then regression coefficient of X 2 points on Y:

*Mark only one oval.*

- 0.2
- 1.2
- 2.2
- 3.2

5. Q) Calculate sales for the year 1991, if  $a = 28$ ; M.Y. = 1987.5; R.G. = 2.6

2 points

*Mark only one oval.*

- 37.1
- 38.1
- 31.7
- 36.1

6. Q) The following are group index number & the group weight of an average working class families budget construct the weight index number. : Weight = 93  $I(x)W=25706$  2 points

*Mark only one oval.*

- 267.41
- 248.41
- 276.41
- 269.41

7. Q) If  $P_0 = 250$  and  $P_1 = 290$  find out index number of simple aggregative method 2 points

*Mark only one oval.*

- 105%
- 116%
- 118%
- 117%

8. Q) Calculate  $\sum xy$  from the series.  $xy = -266, -200, -195, -72, +79, +180, +435, +665$  2 points

*Mark only one oval.*

- 2096
- 626
- 726
- 636

9. Q) Calculation of Rate of Growth if  $\sum xy = 626$ ;  $\sum x^2 = 168$

2 points

*Mark only one oval.*

- 3.72
- 3.73
- 3.82
- 3.83

10. Q) Find out Rank correlation If  $\sum d^2 = 4$ ;  $n = 8$

2 points

*Mark only one oval.*

- 0.952
- 0.782
- 0.962
- 0.982

11. Q) The following linear trend equation was developed for annual

2 points

production from 2004 to 2010 with 2007 the base or zero year.  $Y_1 = 450 + 36X$  (in kgs.). The estimated production for 2014 (in kgs.) is:

*Mark only one oval.*

- 502kgs
- 602kgs
- 702kgs
- 802kgs

12. Q) If  $B_{xy} = -0.278$  &  $B_{yx} = -0.304$ , then  $r =$

2 points

*Mark only one oval.*

- 0.19
- 0.29
- 0.39
- 0.41

13. Q) Calculate trend line if mean = 15; time deviation = - 2; rate of growth = 1.2 2 points

*Mark only one oval.*

12.6

12

13.6

13

14. Q) If  $B_{xy} = 0.8$ ,  $B_{yx} = 0.2$ , then r is 2 points

*Mark only one oval.*

0.3

0.026

0.4

0.046

15. Q) Find out  $\sum xy$ ; Rate of Growth = 4.86;  $\sum x^2 = 28$  2 points

*Mark only one oval.*

136.08

138.08

29

126

16. Q) x series = 21, 29, 20, 22, 18, 16, 20, 24, 26, Find out n? 2 points

*Mark only one oval.*

9

8

7

6

17. Q) Std. Deviation for x & y is 20 & 30 resp. and if r=1 then Byx is 2 points

*Mark only one oval.*

- 1.5
- 0.5
- 2.5
- 0.15

18. Q) Mean 58, Time deviation – 2; R.G. 3.4, what is the value of trend line? 2 points

*Mark only one oval.*

- .512
- 5.12
- 51.2
- 512

19. Q) From the data find out Index No by Paasches Method  $\sum P_1 q_1 = 6600$ ,  $\sum P_0 Q_1 = 5000$ ,  $P_01 = ?$  2 points

*Mark only one oval.*

- 132.5
- 132
- 134.5
- 13.25

20. Q) Choose the middle year from below series 1955, 1996, 1997, 1998, 1999, 2000, 2000 2 points

*Mark only one oval.*

- 1996
- 1998
- 1999
- 2000

21. Q)  $r=0.98$ ,  $n=10$  calculate P.E.

2 points

*Mark only one oval.*

- 0.006
- 0.005
- 0.007
- 0.008

22. Q) If weight of wheat is 80, Sugar is 60; Milk is 15, Find out total of weight. 2 points

*Mark only one oval.*

- 155
- 166
- 177
- 158

23. Q) Find out the index number by Laaspreges Method  $\sum P_1 q_0 = 526$ ,  
 $\sum p_0 q_0 = 332$ ,  $\sum P_1 q_1 = 1100$ ,  $\sum p_0 q_1 = 520$  2 points

*Mark only one oval.*

- 158.43
- 101.23
- 145.86
- 208.75

24. Q) Find out Rank correlation If  $\sum d^2 = 4$ ;  $n = 8$  2 points

*Mark only one oval.*

- 0.9
- 0.895
- 0.1
- 0.952

25. Q) Calculate  $\sum dxdy$  if  $dx = 8 \ 10 \ 12 \ 16$  and  $dy = 2 \ 4 \ 6 \ 8$

2 points

*Mark only one oval.*

- 256
- 78
- 356
- 265

26. Q) If  $dx = -6$ ,  $dy = -10$  calculate  $dxdy$

2 points

*Mark only one oval.*

- 0.06
- 0.6
- 6
- 60

27. Q) If  $dx = -9$ ,  $dy = -10$  calculate  $dxdy$

2 points

*Mark only one oval.*

- 0.09
- 0.9
- 9
- 90

28. Q) If Arithmetic mean of  $x = 68$  ; Arithmetic mean of  $y = 150$  ;

2 points

Standard deviation of  $x = 2.5$  ; Standard deviation of  $y = 20$  and  $r = 0.6$  ,  
then regression coefficient of  $Y$  on  $X$ :

*Mark only one oval.*

- 8.4
- 4.8
- 0.84
- 0.48

29. Q) If  $Ax = 35$ ;  $Ay = 50$ ;  $\sigma x = 5$ ;  $\sigma y = 8$  and  $r = 0.8$  Then the Regression equation of Y on X will be : (where : Regression equation:  $y - ay = Byx(x - Ax)$ ) 2 points

*Mark only one oval.*

- X =  $1.28x + 5.2$   
 Y =  $5.2x + 51.4$   
 Y =  $1.28x - 5.2$   
 X =  $5.2x + 51.4$

30. Q) If  $y = 0.5x - 2.5$  then value of y when  $x = 20$  is 2 points

*Mark only one oval.*

- 6.5  
 7.5  
 8.5  
 0.75

31. Q) If  $p_1$  is 6 and  $q_1$  is 8 then find out  $p_1q_1$  2 points

*Mark only one oval.*

- 48  
 0.48  
 0.048  
 -48

32. Q) Series Y 38, 40, 65, 72, 79, 60, 87, 95, find the value of  $\sum Y$ . 2 points

*Mark only one oval.*

- 536  
 537  
 538  
 563

33. Q) In rank correlation, if x series = 71, 70, 69, 69, 68, 67, 65, 64, 63 So M1 = ? 2 points

*Mark only one oval.*

- 2
- 4
- 6
- 8

34. Q) Find  $\sum dx^2$ , values of dx are 2 4 6 8 and that of dy are 10 12 16 18 2 points

*Mark only one oval.*

- 40
- 60
- 80
- 120

35. Q) Calculate probable error, if  $r = 0.78$  &  $n = 10$  2 points

*Mark only one oval.*

- 0.084
- 0.0084
- 0.4
- 0.8

36. Q) Calculate weighted average of price relative if  $\sum PW = 3281$   $\sum W = 20$  2 points

*Mark only one oval.*

- 165.04
- 164.05
- 163
- 162

37. Q) Calculate the value of  $\sqrt{n} \cdot \sum dy^2 - (\sum dy)^2$  If  $n = 10$   $\sum dy = 18$   $\sum dy^2 = 698$  2 points

*Mark only one oval.*

- 81.584
- 81
- 80.584
- 80

38. Q) Value of perfect positive correlation is \_\_\_\_ 2 points

*Mark only one oval.*

- 1
- 0
- 1
- 2
- Option 5

39. Q) Calculate probable error if  $r = 0$ ;  $81$ ;  $n = 100$  2 points

*Mark only one oval.*

- 0.83
- 0.82
- 0.81
- 0.8

40. Q) The numbers  $11/10$  cannot be a probability? 2 points

*Mark only one oval.*

- True
- False

41. Q) The value of Correlation can exceed to more than 1? 2 points

*Mark only one oval.*

- True
- False

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