Reg. No. : ....

Name : ....

I Semester B.B.A./B.B.A. (RTM) Degree (CBCSS – OBE – Regular/
Supplementary/Improvement) Examination, November 2022
(2019 Admission Onwards)
COMPLEMENTARY ELECTIVE COURSE
1C01BBA/BBA (RTM) : Statistics for Business Decisions

Time : 3 Hours

Max. Marks : 40

PART – A

Answer all questions. Each question carries 1 mark.

1. What is a pictogram ?

2. Define correlation.

3. What is probable error ?

4. What is ogive ?

5. How one can compute the real income with the help of index number ?

6. Find correlation coefficient, if coefficient of determination is 0.81.   (6×1=6)

PART – B

Answer any 6 questions. Each question carries 2 marks.

7. State the conditions under which the moving average method gives the best estimate of the long run tendency of the data.

8. Briefly explain the uses of cost of living index.

9. The following data represents the ranks given to ten employees by two performance appraisers. Find any correlation exists between the ranks given by the two appraisers.

Employees	01	02	03	04	05	06	07	08	09	10
Rank Given by Appraiser 1	1	2	3	4	5	6	7	8	9	10
Rank Given by Appraiser 2	1	3	2	4	6	5	9	8	10	7

10. Calculate cost of living index number.

Group	Index	Weight
Food	247	48
Fuel and Lighting	293	12
Clothing	289	9
Housing	100	12
Miscellaneous	236	15

11. $64x - 45y = 24$ (regression eq. y on x)

$5x - y = 22$ (regression eq. x on y)

Find mean of X and Y series.

12. Why classification of data is important in statistical analysis ?

13. List the utilities of time series analysis.

14. What are the essential parts of a statistical table ?

(6×2=12)

PART – C

Answer **any** 4 questions. **Each** question carries **3** marks.

15. Construct Fisher's Price Index from the following data by taking 2015 as base year.

2015		2020	
Price	Value	Price	Value
50	500	40	480
80	480	70	770
60	180	50	200

16. Briefly explain the importance and uses of index numbers.

17. Distinguish between correlation and regression.

18. Explain different types of bar diagrams.

19. X = 10, Y = 90, Variance of X = 9, Variance of Y = 144 and Correlation coefficient between X and Y is 0.8. Find the regression equations Y on X and X on Y.

20. The monthly sales of a company during 2021-22 are given below.

Month	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	March
Sales (in Lakhs)	85	90	100	105	108	112	120	130	134	136	140	142

Find trend values by 4 months moving average. (4×3=12)

PART – D

Answer **any 2** questions. **Each** question carries **5** marks.

21. From the following data, compute Pearson's coefficient of correlation between age and success in examination.

Age of the candidate	13-14	14-15	15-16	16-17	18-19	19-20	20-21	21-22
Candidates appeared	300	100	50	150	400	250	150	25
Successful candidates	180	80	30	90	248	140	90	12

22. Define index number. Briefly explain different methods of construction of price indices.

23. Fit a straight line trend by the method of least squares and estimate trend values.

Year	2001	2002	2003	2004	2005	2006	2007	2008
Sales (Rs.)	70	80	82	73	84	89	82	94

24. Briefly explain the methods of collecting primary data. (2×5=10)