Reg. No. : ....

Name : ....

V Semester B.A./B.Sc./B.Com./B.B.A./B.B.A.T.T.M./B.B.M./B.C.A./B.S.W./ B.A. Afsal Ul Ulama Degree (CCSS – Reg./Supple./Improv.) Examination, November 2012 OPEN COURSE IN STATISTICS 5D01 STA : Computer Oriented Data Analysis

Time: 2 Hours   Max. Weightage : 20

Instruction : *Use* of calculators and tables are *permitted*.

PART – A

Choose the correct answer (Answer **all** questions, weight $1/4$) :

1. Census is not suitable for
   - a) Preparation of Voter's list
   - b) Testing life of Bulbs
   - c) Assessment of Income Tax
   - d) Preparation of Rank list

2. In simple Random sampling, which of the following is true ?
   - a) Every unit of the population has unequal chance to be included in the sample
   - b) All possible samples of a given size has same chance of turning out
   - a) a) only
   - b) b) only
   - c) both a) and b)
   - d) None of these

3. Which of the following average is suitable for open-ended data ?
   - a) AM
   - b) Median
   - c) GM
   - d) HM

4. Above third Quartile Q_3, there will be _____ % of the total observation.
   - a) 100%
   - b) 75%
   - c) 50%
   - d) 25%

5. The Second Central Moment μ_2 measures
   - a) AM
   - b) Variance
   - c) Skewness
   - d) Kurtosis

P.T.O.

6. The limits of Karl Pearson's correlation coefficient are

   a) $-\infty$ and $+\infty$ b) 0 and $-\infty$

   c) -1 and $+1$ d) 0 and $+1$

7. Which of the following function in EXCEL is used for find coefficient of correlation ?

   a) CORRELATE   b) CORRELL

   c) COREL   d) CORREL

8. Which of the following is not a SPSS Main Menu ?

   a) Transform   b) Analyze

   c) Data Reduction   d) Data $(1 \times 1/4 = 2)$

PART – B

Answer in **a sentence or two** (Answer **any 6** questions, weight **1**) :

9. Define stratified Random sampling.

10. Define secondary data.

11. State any two major limitations of AM.

12. State empirical relation between Mean, Median and mode.

13. Define Standard Deviation and its coefficient.

14. State the expressions of μ_3 and μ_4 in terms of μ'_1, μ'_2, μ'_3 and μ'_4 .

15. State the uses of Pearson coefficients β_1 and β_2.

16. State any two properties of Regression Coefficients.

17. Name the statistical function in EXCEL used to find regression coefficients.

18. Name SPSS main and sub menus used for Bivariate data analysis. $(6 \times 1 = 6)$

PART – C

Answer should not exceed a page. (Answer **any 4** questions, weight **2**)

19. What are the different sources of collecting Primary and secondary data ? Explain.

20. Explain the construction of Histogram for a frequency distribution.

21. Explain how Lorenz curve is useful in studying disparities of distributions ?

22. Find AM and Standard Deviation of the following data :

    10.28, 9.6, 7.53, 12.14, 11.93, 8.76

23. Explain fitting of a straight line to a Bivariate data.

24. Calculate Spearman's Rank Correlation Coefficient for the following data :

Marks in Maths :	76	83	54	48	69	88	60	72
Marks in Economics :	69	75	60	52	63	79	64	66

25. Explain various charts and graph options available in EXCEL.

26. Explain, how various measures of a univariate data can be obtained using SPSS.

$$(4 \times 2 = 8)$$

PART – D

Answer **any one** question (weight **4**)

27. Consider the following data :

Class :	0 – 10	10 – 20	20 – 30	30 – 40	40 – 50	50 – 60
Frequency :	9	12	25	34	50	45

Class :	60 – 70	70 – 80	80 – 90	90 – 100
Frequency :	32	22	19	5

    Find :

    1) Median and Mode

    2) Bowley's coefficient of skewness and comment on the nature of skewness.

28. Consider the following Bivariate data :

X : 10   20   30   40   50   60   70   80

Y : 26   43   38   47   52   59   56   60

Find :

1) Karl Pearson's correlation coefficient

2) The two lines of Regression.

Also estimate Y when X = 55.

29. Explain how Correlation and Regression Analysis can be conducted using SPSS.

(1×4=4)