

SECOND SEMESTER M.A. DEGREE EXAMINATION, JUNE 2015
(CCSS)

Economics

ECO 2C 07—STATISTICS FOR ECONOMICS
(2013 Admission onwards)

Time : Three Hours

Maximum : 80 Marks

Part A

*Answer all questions.
Each question carries 1 mark.*

1. Probability Distribution defines the domain of :
 - (a) Sample.
 - (b) Averages.
 - (c) Population.
 - (d) None of the above.
2. The most useful probability distribution for continuous variables :
 - (a) Binomial.
 - (b) Normal.
 - (c) Poisson.
 - (d) None of the above.
3. The parameters of normal distribution :
 - (a) m .
 - (b) n, p .
 - (c) $\bar{X}, \sigma$.
 - (d) None.
4. The other name for probability sampling :
 - (a) Quota sampling.
 - (b) Judgement sampling.
 - (c) Random sampling.
 - (d) None of the above.
5. Type II error is also known as :
 - (a) α error.
 - (b) β error.
 - (c) λ error.
 - (d) None of the above.
6. Which one of the following is a non-parametric test :
 - (a) 't' test.
 - (b) 'Z' test.
 - (c) 'F' test.
 - (d) None of the above.
7. The other name for Kruskal-Wallis test :
 - (a) 'U' test.
 - (b) 'Z' test.
 - (c) 'H' test.
 - (d) None of the above.

Turn over

8. 'F' test is also known as :
 (a) Variance Ratio Test.
 (b) Mean ratio test.
 (c) Standard error test.
 (d) None of the above.
9. Author of Chi-square test :
 (a) Moivre.
 (b) Laplace.
 (c) Karl Pearson.
 (d) None of the above.
10. The numerical value of correlation coefficient lies between :
 (a) 0 and 1.
 (b) 0 and α .
 (c) -1 and +1.
 (d) None of the above.

(10 × 1 = 10 marks)

Part B

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

11. Write and explain Lognormal probability distribution.
12. Briefly explain central limit theorem.
13. What is a standard error ? How to compute standard error ?
14. Briefly explain F distribution.
15. Illustrate interval estimation.
16. Construct confidence interval for proportion.
17. What are the sources of hypothesis ?
18. What is type II error ? Illustrate.
19. Explain and illustrate critical region.
20. Write the advantages of non-parametric tests.
21. Illustrate Wilcoxon test.
22. Briefly explain one way ANOVA.

(8 × 5 = 40 marks)

Part C

*Answer any two questions.
 Each question carries 15 marks.*

23. Write the basic form of the normal distribution. What are its properties ?
24. Explain and illustrate the method of maximum likelihood to estimate the parameters.
25. Explain and illustrate Chi-square test with an example.

26. The scores of a common test given to the students of different schools are given below. Make an ANOVA of the data and find out whether is there any significant difference between the scores :

Schools			
A	B	C	D
10	14	16	13
8	11	14	12
12	10	16	12
8	14	8	16
9	7	10	15

(2 × 15 = 30 marks)