Reg. No…….. Name…… **19U602**

B. A. DEGREE END SEMESTER EXAMINATION - MARCH 2019

SEMESTER **– 6: ECONOMICS (CORE COURSE)**

COURSE: **15U6CRECO11: QUANTITATIVE ECONOMICS**

(Common for Regular - 2016 Admission / Supplementary-Improvement 2015 admission)

Time: Three Hours Max. Marks: 75

Part A

Answer all questions in one or two sentences. Each question carries 1 mark.

1. Median
2. Variance
3. Quartile Deviation
4. Skewness
5. Correlation
6. Regression equations
7. Probability
8. Random experiment
9. Differentiation
10. Binomial distribution (10 x 1 = 10 marks)

Part B

Answer any eight of the following in three or four sentences. Each question carries 2 marks

11. Explain the term Coefficient of correlation.
12. Distinguish between linear and non linear regression.
13. Explain the merits and demerits of arithmetic mean.
14. What do you mean by sample space and random experiment?
15. What is meant by coefficient of range?
16. Explain the merits of mean deviation.
17. Explain mutually exclusive events.
18. Explain Lorenz Curve.
19. Explain the properties of regression coefficients.
20. Explain any four properties of binomial distribution. (8 x 2 = 16 marks)

PART C

Answer any five of the following in not more than one page. Each question carries five marks.

21. Explain the scatter diagram
22. Explain the rules of differentiation
23. State and prove the addition theorem of probability

24. Three friends Ram, Rahim and Roy are simultaneously shooting a target. Probability that Ram hits the target is ¼, that of Rahim is ½ and that of Roy is 2/3. Find the probability that 1) exactly one of them will hit the target 2) at least one of them will hit the target.
25. Find the maxima and minima points of the function $y = 2x^4 - 8x^3 - 40x^2 + 79$
26. Compute median from the following data

Mid value	frequency
115	6
125	25
135	48
145	72
155	116
165	60
175	38
185	22
195	3

27. Calculate mean deviation from the following data

X : 10 11 12 13 14

F : 3 12 18 12 3

(5 x 5 = 25 marks)

PART D

Answer any two of the following in not exceeding four pages. Each question carries 12 marks

28. Define normal distribution and its properties. Explain the features of a normal curve.
29. Obtain rank correlation coefficient for the following data

X : 68 64 75 50 64 80 75 40 55 64

Y : 62 58 68 45 81 60 68 48 50 70

30. From the following data find the two regression equations

X : 80 45 55 56 58 60 65 68 70 75 85

Y : 82 56 50 48 60 62 64 65 70 74 90

31. Describe the various approaches to Probability. A committee for grama sabha has to be constituted by selecting two people at random from a group consisting of 3 men and 4 women. Find the probability that the committee will consist of 1) 2 men 2) 2 women 3) 1 men and 1 woman.

(12 x 2 = 24 marks)

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