Roll No. ☐☐☐☐☐☐☐☐☐☐

ADCA-8, BCA-9
2nd Year Examination, Calendar Batch 2016
Computer Oriented Statistical & Optimization Methods

Time : 3 Hours]   *[Max. Marks : 100*

*Note. Attempt any **five** questions. All questions carry equal marks.*

Que.1. Solve the following LPP by simplex method
    Maximize z=3x1+2x2
      S .t. 5x1+x2 <= 10, 4x1+ 5x2 <= 60; x1, x2>=0

Que.2. Compare the coefficient of skewness and kurtosis of the following data

Class	0-4	4-8	8-12	12-16	16-20
Frequency	4	10	6	12	8

Que.3. What do you mean by Simplex method? Solve the following by simplex method-
        Max. $z= 3x_1+5x_2$
      s.t. $2x_1+4x_2 >=40$;
              $3x_1+2x_2>=50$, $x_1,x_2>=0$

Que.4. The mean of 15 items is 34. It was found out, later on, that two items 48 and 32 were wrongly copied as 84 and 23 respectively.Find out correct mean.

Que.5. What do you mean by Poisson Distribution? If a random variable has a Poisson Distribution such that $P(1) =P(2)$ then find i) mean of distribution and ii)P(4)

Que.6. Write short note on
   (i)sampling method   (ii)Systematic random Sampling.

Que.7. Find the
    a) M.D.
    b) S.D
    For the following

Score	4-5	6-7	8-9	10-11	12-13	14-15
Frequency	4	10	20	15	8	03

Que.8. Explain the difference between a questionnaire and a schedule.