SEAT No._____   No. of Printed Pages : 02

[A-9 & A-10]   SARDAR PATEL UNIVERSITY
BBA SEMESTER III EXAMINATION NOVEMBER 2017(2010 BATCH)
SUBJECT: STATISTICS FOR MANAGEMENT I
SUBJECT CODE: UM03CBBA04/09

DATE: 25/11/2017   TIME: 2.00 PM TO 4.00 PM
                                     TOTAL MARKS : 60

Q. 1(a) For the following data, using tally marks and taking one of the   8
         inclusive classes as 22-25, prepare a frequency distribution:
         10, 17, 15, 22, 11, 16, 19, 24, 29, 18, 25, 26, 32, 14, 17, 20, 23, 27, 30,
         12, 15, 18, 24, 36, 18, 15, 21, 28, 33, 38, 34, 13, 10, 16, 20, 22, 29, 19,
         23 and 31

    (b) Find mean and standard deviation for the following data   7
         X: 1   2   4   6   8   9

                              OR

Q. 1(a) For the data given below, find the missing frequency if the arithmetic   8
         mean is 33. Also find the median.
         Class: 0-10   10-20   20-30   30-40   40-50   50-60
           f :   10   15   30   ?   25   20
    (b) Write note on :   7
         (i)   Coefficient of Variation
         (ii)   Deciles
         (iii) Mode

Q. 2(a) With usual notations state and prove addition theorem of probability   8
         considering three joint events

    (b) What is the probability to get 5 Sundays in the year 2052   7

                              OR

Q. 2(a) Give definitions of probability and show that P(A) + P(A') = 1   8

    (b) A card is selected at random from a pack of cards. Find the   7

probability to get a face card or a spade card.

Q. 3(a) State probability density function and properties of Binomial, 8
Poisson and Normal distributions of probability

(b) For a binomial distribution, given n = 10 and P(x =5)=2P(x = 4) then 7
find the value of 'p'

OR

Q. 3(a) For a Poisson distribution, given P(x =3) = P(x = 4) then find P(x = 2) 8

(b) In a normal distribution 31 % observations are less than 45 and 8 % 7
observations are more than 64. Find its mean and variance

Q. 4(a) Explain the principles of Statistical Quality Control (SQC) 8

(b) Write control limits for(i) charts for variables and (ii)charts for 7
attributes

OR

Q. 4(a) Draw 'c' chart and give your findings for the following data: 8
Number of defectives: 12, 20, 16, 15, 8, 14, 13, 13, 15, 10, 10, 10, 18,
8, 10

(b) Distinguish between charts for variables and charts for attributes 7

———X———