

SARDAR PATEL UNIVERSITY
BBA (G) 3rd Semester Examination
2012
Monday, 31st December
2:30 - 4:30 pm
UM03CBBA04/09 – Statistics for Management-I

Total Marks : 60

Note : Figures to the right indicate marks.

Q.1

- (a) Distinguish between [07]
 (i) Primary and Secondary Data
 (ii) Sampling and Census Method
- (b) Goals scored by two teams A and B in a football season were as below. [08]
 Using C.V. find which team may be considered more consistent.

No. of goals scored in a match	No. of matches	
	A team	B team
0	27	17
1	09	09
2	08	06
3	05	05
4	04	03

OR

- (a) For a certain frequency table which has only been partly reproduced [07]
 here, the mean was found to be 1.46. Calculate missing frequencies.
 X : 0 1 2 3 4 5
 F : 46 ? ? 25 10 5 Total = 200
- (b) In the following data X are the mid values of the class intervals and "C" is [08]
 a constant. If its mean is 35.84, find its class intervals.
 x - c : -21 -14 -7 0 7 14 21
 f : 2 12 19 29 20 13 5 = 100

Q.2

- (a) With usual notations state and prove additional theorem of probability [07]
 considering two joint events.
- (b) Find k and E(x) for the following data. [08]
 X : 0 1 2 3 4 5 6 7
 P(x) : 0 k 2k 2k 3k k² 2k² 7k²+k
- OR**
- (a) A basket contains 4 White and 6 Red flowers. [07]
 Second basket contains 5 White and 8 Red flowers.
 Third basket contains 6 White and 10 Red flowers.
 Two flowers are taken at random from a basket.
 Find the probability to get both Red flowers.
- (b) A leap year is selected at random. Find the probability to get [08]
 (i) 53 Sundays or 53 Fridays
 (ii) 53 Mondays or 53 Tuesdays

- Q.3
- (a) Give conditions, p.d.f, properties and use of Binomial and Poisson distributions of probability. [07]
- (b) For a normal distribution of 100 items $Q_1=73$ and $\sigma=15$, Find (i) median and (ii) limits for central 50 % of the items. [08]

OR

- Q.3
- (a) The distribution of marks obtained in an examination is normal 44% of the candidates get marks below 61 and 4 % got marks above 80. Find the percentage of candidates who got marks above 65. [07]
- (b) Fit a Poisson distribution for the following data. [08]
- | | | | | | | | | |
|---|---|----|----|----|---|---|----|------|
| x | : | 0 | 1 | 2 | 3 | 4 | or | more |
| f | : | 37 | 36 | 19 | 6 | 2 | | |

- Q.4
- (a) Give the difference between the Charts for variables and charts for attributes. [07]
- (b) Discuss the principles of SQC. [08]

OR

- Q.4 Draw \bar{x} and R charts for the following data and state your conclusions [15]
(Given n=5)
- | | | | | | | | | | | | |
|-----------|---|------|------|------|------|------|------|------|------|------|------|
| \bar{x} | : | 12.8 | 13.1 | 13.5 | 12.9 | 13.2 | 14.1 | 12.1 | 15.5 | 13.9 | 14.2 |
| R | : | 2.1 | 3.1 | 3.9 | 2.1 | 1.9 | 3.0 | 2.5 | 2.8 | 2.5 | 2.0 |

