Roll No. | | | | | | | | | | | | Total No. of Pages : 03

Total No. of Questions : 09

MBA (Executive) (Sem.–2)

STATISTICS FOR BUSINESS DECISIONS

Subject Code : MBX-201

M.Code : 74218

Time : 3 Hrs. Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A contains TEN questions carrying TWO marks each and students has to attempt any EIGHT questions.
2. SECTION-B consists of SEVEN questions each carrying SEVEN marks each and student has to attempt any FIVE questions.
3. SECTION-C is consist of ONE Case Study carrying NINE marks.

SECTION-A

Q1. Answer briefly :

a) Discuss how statistics affects business decisions.

b) Discuss and differentiate between interval, nominal and ordinal data.

c) Explain how are business graphs constructed?

d) Discuss the significance of coefficient of variation.

e) Explain various types of correlation.

f) Discuss the relevance of probability theory.

g) What are random variables?

h) Discuss the merits of sampling.

i) What is meant by central limit theorem?

j) Explain the type-I and type-II errors.

SECTION-B

Q2. Discuss the various types of data collection forms.

Q3. Given the marks of a statistics class, find the skewness of the following data :

Marks	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80
No. of students	3	6	9	12	19	16	11	8

Q4. Find the agreement/disagreement in tastes of 3 students vis-á-vis cold drinks preferences, given their rankings for the following soft drinks :

Cold Drinks	**Coco-Cola**	**Fanta**	**Appy Fizz**	**Sprite**	**M. Dew**	**Pepsi**	**Limca**
Student # 1	7	5	4	6	2	1	3
Student # 2	1	3	4	5	2	6	7
Student # 3	7	4	3	5	1	2	6

Q5. Municipal Corporation of a city installed 1,000 LED light bulbs in streets. If these bulbs have an average life of 120 days, with a standard deviation of 20 days, what number of bulbs might be expected to fail in less than 90 days? Also, if all the bulbs have to be replaced together, what intervals should be allowed between replacements, if not more than 10% should expire before replacement?

Q6. A manufacturing company produces steel pipes in 2 plants I and II, with daily production of 1500 and 2000 pipes respectively. The fraction of defective pipes produced by 2 plants I and II are 0.006 and 0.008 respectively. If a pipe selected at random from that day's production is found to be defective, what is the chance that it has come from plant I, plant II?

Q7. List and explain the various methods of probability sampling.

Q8. Write short notes on :

a) Significance level

b) Standard error of difference

SECTION-C

Case Study :

Q9. A company XYZ Ltd. deals in selling cars pan India. The company has several marketing executives on its rolls. To understand the sales efficiency and consistency of its top 4 executives, the company asked its research department to carry out a detailed study and note the data related to their sales in (Rs. Crores) in past 10 months. Following data was collected of the 4 executives of the company. The sales head now wants an analysis to be done and thereby determine the order of consistency amongst the executives.

Sales figures (Rs. in Crores)

	Months									
	Jan	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**
Salesman A	11	15	19	12	14	13	10	12	15	18
Salesman B	25	23	21	24	29	26	21	20	23	24
Salesman C	15	16	17	18	13	12	15	14	16	18
Salesman D	22	25	27	29	20	21	26	23	21	20

a) Find out the most consistent and least consistent executive amongst the 4.

b) Also, find out the average sales and the range of sales for each executive.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.