SEAT No. :

PA-1719

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F.Y. B.Com.

114 - A : BUSINESS MATHEMATICS & STATISTICS - I (2019 Credit Pattern) (Semester - I)

[Max. Marks : 70 *Time* : 2¹/₂ *Hours*] Instructions to the candidates: All Questions are compulsory. *1*) 2) Figures to the right indicate full marks. في 3) Use of simple calculator is allowed. *Q1*) A) Fill in the blanks with suitable choice (Any five): [5] The sum which is repaid with interest is called a) i) Principal Present value 11) iii) Interest Amount 1V**b**) EMI stands for Equal Money Instalment i) Equated Monthly Instalment ii) iii) Equal Monthly Instalment iv) Easy Money Instalment Shareholders received ______ on their capital. i) Interest ii) Dividend iv) Commission iii) Rent SIP is _____ investment. d) i) Lump Sum Periodic ii) iii) Fixed One Time iv) _____ is the selected set of data under consideration of study. e) Population i) Sample ii) iii) Census iv) All of the above

- f) Data belongs to quantitative nature is called _____.
 - i) Variable ii) Attributes
 - iii) Both iv) None of the above

g) Average of all observations in a set of data is known as _____

- i) Mean ii) Median
- iii) Mode iv) Standard Deviation
- B) State whether following statement is True or False (Any Five): [5]
 - a) The period for which loan is taken is called Term.
 - b) Face Value is the value stated in share certificate.
 - c) NAV stands foe Net Asset Value.
 - d) Sampling method is less costly method of data collection.
 - e) The most repetitive observation in the data set is called as mode.
 - f) Range is calculated by L-S.
 - g) Upper value of class is called upper limit.

Q2) Solve any three from the following:

a) Find out the simple interest on amount ₹ 25,000 at 7.5% p.a. for 6 years.

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- b) Mr. Pradeep purchased a share of ₹ 100 for ₹ 115. The company declared 18% dividend. Find the value of return.
- c) Compute the mean and mode for the following data.

96, 98, 75, 80, 102, 100, 94, 75

- d) Explain the term Stock Exchange.
- e) What is Simple Random Sampling?

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Q3) Solve any three from the following:

- Find the compound interest on ₹ 50,000 at 8% p.a. for 3 years. a)
- Find out how many units of mutual funds has purchased by Sunil if he b) invested ₹ 20,000 in Reliance mutual fund with N.A.V. of ₹ 40 each. There is no entry load in transaction.
- c) Find the mean of the following frequency distribution.

Weight (kg)	0-10	10-20	20-30	30-40	40-50	
No. of students	1	3	10	4	2	
What is SRSWR and SRSWOR?						
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- What is SRSWR and SRSWOR? d)
- Explain scope of statistics in management science. e)
- Q4) Solve any three from the following:
 - Find EMI on a loan of 5,00,000 to be paid in 2 years at 12% p.a. on the a) outstanding amount at the beginning of each month.
 - Find the mode of the following frequency distribution: b)

Class	0-20	20-40	40-60	60-80	80-100
Frequency	4	8	9	20	9

Compute the range and the coefficient of range for the data given below: c)

100, 24, 14, 105, 21, 35, 106

d) State merits and demerits of mean.

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e) The frequency distribution of marks obtained by 100 students in F.Y. B.COM. is given below:

Marks	0-19	20-39	40-59	60-79	80-99
No. of students	8	26	24	12	5

Answer the following questions:

- i) State the type of classification.
- ii) Find the class-mark of 2nd class.
- iii) State the class boundaries of 3rd class.
- iv) Find the class width of fourth class.
- v) Find the number of students getting marks less than 79.

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Q5) Solve the following:

a) Find the median of the following frequency distribution:

Marks10-3030-5050-7070-9090-110No. of Students1040803515

b) Compute standard deviation from the following data:

2, 3, 5, 2, 7, 5, 7, 6, 11, 12

b) Draw histogram of the following frequency distribution:

Marks0-1010-2020-3030-4040-50No. of students41218163

OR

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