

F.Y.B.COM. SEM – I (2014 Course) : SUMMER - 2019
SUBJECT: BUSINESS MATHEMATICS & BUSINESS STATISTICS - I

Day: Tuesday
Date: 30/04/2019

S-2019-0381

Time: 12.00 NOON TO 02.00 PM
Max. Marks: 40

N.B.:

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Draw neat labeled diagrams **WHEREVER** necessary.
- 4) Use of logarithmic table and pocket **CALCULATOR** is allowed.

Q.1 Attempt any **TWO** of the following: **(10)**

- a) Answer questions using the following frequency distribution.

Class	100-150	150-200	200-250	250-300	above 300
Frequency	22	35	18	08	20

- i) Class Width of third class.
- ii) Midpoint of 2nd class.
- iii) Frequency of last but one class.
- iv) How many observations are less than 250?
- v) State open end class if any.

- b) Write a procedure of Simple Random Sampling with suitable illustration.

- c) Draw histogram for the following frequency distribution.

Class	10-30	30-50	50-70	70-90	90-110	110-130	130-150
Frequency	21	27	41	49	21	13	6

- d) Obtain mean and median for the following frequency distribution.

Class	10-20	20-30	30-40	50-60	60-70
Frequency	7	12	28	10	18

Q.2 Attempt any **TWO** of the following: **(10)**

- a) Find the combined mean of the following data:

Group I : $n_1 = 10$, $\sum X = 60$

Group II : $n_2 = 15$, $\sum X = 80$

- b) Calculate price index number using Laspeyre's method from the information given below:

Item	Base Year		Current year price
	Price	Quantity	
Cheese	30	6	35
Bread	40	2	55
Eggs	50	14	80
Milk	60	4	90

Also if price index number using Paasche's method is 160, calculate Fishers prices index number.

- c) State various problems involved in the construction of index number.

P. T. O.

(10)

- Q.4** Attempt any **TWO** of the following: (10)

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