

**UNIVERSITY INSTITUTE OF APPLIED MANAGEMENT SCIENCES PANJAB  
UNIVERSITY, CHANDIGARH**

**MID SEMESTER EXAMINATIONS- MBA (SECTORAL MANAGEMENT) –1 SEM-  
FEBRUARY, 2021**

**IMPORTANT INSTRUCTIONS:**

- 1) Please download the Question Paper immediately on receipt of the same.
- 2) Mark your attendance online After Receiving the Question Paper
- 3) **Select the Relevant Question Paper as per your Sectoral Area of Study/Functional Area**
- 4) Please put Roll No, Subject Code, Page No. and Signatures on all pages of the answer sheet
- 5) Maximum Number of pages in Answer Sheet are 16.
- 6) Timing of Examinations are 10.00 a.m. to 12.00 noon
- 7) Attempt Questions as per instruction in the question paper. ALL Questions carry Equal Marks
- 8) Preserve the original Answer Sheet. It may be required to be submitted at a later date.
- 9) The candidate will be required to submit a single PDF file of his/her answer sheet from their registered email address to the **NEW GOOGLE FORM** link <https://forms.gle/yK1myfNc3WqR92Fq5> within 90 minutes from completion of examination i.e. till 1.30 p.m. (for Morning Session exam.) and till 6.00 p.m. (for Evening Session exam.) on the day of examination.

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**MID TERM EXAMINATION  
MBA (RETAIL/ BANKING AND INSURANCE/ IT AND TELECOM/  
INFRASTRUCTURAL MANAGEMENT/ HOSPITAL/ PHARMACEUTICAL  
MANAGEMENT/ CAPITAL MARKETS) 1<sup>st</sup> SEMESTER,  
FEBRUARY 2021  
MBA-1004  
PAPER: BUSINESS STATISTICS**

Note: All questions carry equal marks. Attempt any three out of five.

Q1. a. The mean weight of a class of 35 students is 45 kg. If the weight of the teacher be included, the mean weight increases by 500 g. Find the weight of the teacher.(2)

b. Calculate mean deviation from the following data:

C.I	F
0-5	2
5-10	5
10-15	7
15-20	13
20-25	21
25-30	16
30-35	8
35-40	3

(3)

Q2. a. What are index numbers? How are they calculated? Explain the importance of index numbers in managerial decision making.(3)

b. Splice the following data to the base 1995.

Year	Old Price Index [1990=100]	Revised Price Index [1995=100]
1990	100.0	
1991	102.3	
1992	105.3	
1993	107.6	
1994	111.9	
1995	114.2	100.0
1996		102.5
1997		106.4
1998		108.3
1999		117.7
2000		117.8

(2)

Q3. a. What are probability distributions? Discuss normal distribution in detail. (2)

b. The mean weight of 500 male students in a certain college is 151 lb. and the standard deviation 15 lb. Assuming the weights are normally distributed find how many students weigh (i) between 120 and 155 lb. (ii) more than 185 lb. (3)

Q4. a. Define the binomial variate and obtain its probability distribution function . Find the mean and variance of the binomial distribution. (2)

b. Assume that on an average one telephone number out of fifteen is busy. What is the probability that of six randomly selected telephone numbers are called (i) not more than three are busy ? (ii) at least three of them will busy ? (3)

Q5. a. What is Poisson distribution ? Give an example where it can be applied (2)

b. The following table gives the number of days in a 50 day period during which automobile accidents occurred in certain part of a city . Fit a Poisson distribution to the data ( Given  $e^{-1} = 0.3678$ ). (3)

Number of accidents	0	1	2	3	4
Number of days	19	18	8	4	1