

Total pages: 2

PG CBCS
PG Semester-II Examination, 2021
ALLIED HEALTH SCIENCE
PAPER: MHA 207

(QUANTITATIVE METHODS OF MANAGEMENT)

Full Marks: 40**Time: 2 Hours****Answer any FOUR questions from the following:****4×10=40**

1. Define Binomial and Poisson laws in theoretical distribution. Compare the Binomial and Poisson distributions. A and B play a game in which A 's chance of winning is $\frac{2}{3}$. In a series of 8 games what is the chance that A wins at least six games? 2+4+4

2. What is statistical data? Discuss the different methods of collection of data with examples. 2+8

3. Determine the mean and median for the following distribution of Indian adult males:

Height (cm)	144.5	149.5	154.5	159.5	164.5	169.5	174.5	179.5
class-interval	5-	5-	5-	5-	5-	5-	5-	5-
	149.5	154.5	159.5	164.5	169.5	174.5	179.5	184.5
	5	5	5	5	5	5	5	5
Frequency	1	3	24	58	60	27	2	2

5+5

4. Define Random experiment and Mathematical definition of probability. Show that the probability that exactly one of the events A and B occurs is $P(A) + P(B) - 2P(AB)$. A die is rolled. If the result is 'either an even face or a multiple of three', I win. Then, what is the probability of my winning? 4+3+3

5. Calculate the correlation coefficient and determine the regression lines of Y on X and X on Y for the sample

X	8	10	5	8	9
Y	1	3	1	2	3

10

6. Distinguish between statistics and parameter. Discuss the usefulness of statistics in business. 3+7

(P.T.O.)

(2)

7. Compute the unbiased standard deviation (SD), variance and coefficient of variation of the following distribution of housefly wing length scores ($mm \times 10^{-1}$).

Class-interval	34-37	38-41	42-45	46-49	50-53
Frequency	4	8	15	7	6

6+2+2

8. Define the terms correlation and regression. State the application of regression in business with an example.

4+6
