

Digital Assignment I

Course: MAT5007 (Applied Statistical Methods)

Slot: D2

Max. Marks: 10

Last Date of submission: 09.12.2022

Submission Guidelines:

- A. The top part of every page must contain the below part in filled up condition.

Reg. No.	Name:	Sign.
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- B. Answer should be written neatly without any corrections.
- C. Take clear and visible snapshot of your answer sheet carefully and make a SINGLE PDF FILE ONLY and then UPLOAD it through log-in portal. Submission through e-mail is not permitted.
- D. Uploading of answers in any other format is not acceptable. Do not send different image files or zipped files. Do not send the answer sheet to my e-mail address.
- E. Submission after due date will not be evaluated and zero mark will be awarded for such case.
- F. Any kind of unfair practices if found will be awarded zero mark.
- G. SAME WORDINGS AND WRITING in two answer scripts will be awarded ZERO mark for both. Remember, copying from same source (e.g. internet) also may results the same wordings and writing.

$$5 \times 2 = 10$$

1. A die is thrown 4 times. Getting a number greater than 2 is a success. Find the probability of getting (i) exactly one success, (ii) less than 3 successes.
2. If the chance that any one of 5 telephone lines is busy at any instant is 0.01, what is the probability that all the lines are busy? What is the probability that more than 3 lines are busy?
3. Probability of getting no misprint in a page of book is $\exp(-4)$. What is the probability that a page contains more than two misprints?
4. Six coins are tossed 6400 times using Poisson distribution. What is the approximate probability of getting six heads 10 times?
5. Fit a Poisson distribution to the following data and compare the expected frequencies with the observed frequencies.

x	0	1	2	3	4
f	122	60	15	2	1

*****End*****