Q.6 Write short note on (Any four)

(i) Poisson Distribution

(ii) Game theory

(iii) Quelling system

Q.7 Write short note on Reliability Engineering Basic concept of Reliability.

Q.8 Define Components Reliability and Hazard models.

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[Total No. of Questions: 8] *[Total No. of Printed Pages :2]*

Enroll No…….

MA-104
M. Tech.(CTM)–I Sem. (Reg./Ex.)
Examination, March -2021
Advanced Mathematics
Time: Three Hours

Maximum Marks:70

Note: Attempt any five questions. (Each question carries equal marks)

Q.1 In a Distribution which is exactly normal 31% of the items are under 45 and 8% over 64 find the mean and S.D. of the distribution.

Q.2 What is Bellman's principle of optimality? Apply this principle to divide a given quantity C into n parts so as to maximize their product

Q.3 Discuss various steps involved in the application of PERT and CPM.

Q.4 Explain the importance of reliability. What are the basic elements of reliability?

Q.5 Define gamma model and find time to failure f (t), probability of failure F (t), probability of working reliability R (t) and mean time to failure MTTF.