

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT
TEST -1 EXAMINATION – September 2016
M.Tech I Semester

COURSE CODE: 14M31CE112

MAX. MARKS: 15

COURSE NAME: SIMULATION AND MODELING

COURSE CREDITS: 03

MAX. TIME: 1 Hr

Note: All questions are compulsory. Carrying of mobile phone during examinations will be treated as case of unfair means. Assume suitable data if required.

- Q1.a)** Distinguish between "Modeling" and "Simulation". What are the goals that can be achieved through simulation and modeling of a system? [2.5 Marks]
- b) With the help of a neat diagram, explain the steps involved in simulation study. Under what circumstances, simulation modeling and analysis of a system is suitable. [2.5 Marks]
- Q2.a)** Define an "Event". Distinguish between a "Discrete Event" and "Continuous Event". [3.0 Marks]
- b) How an analytical model is different from a numerical model? [2.0 Marks]
- Q3.** What do you mean by the following terms: [05 Marks]
- i. Model Calibration
 - ii. Model Verification and
 - iii. Model Validation
- Why is it necessary to carry out the above steps in simulation modeling?