## JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT TEST -1 EXAMINATION- 2025

## B.Tech-VIII Semester

COURSE CODE (CREDITS): 21B1WCE831 (3)

MAX. MARKS: 15

COURSE NAME: DISASTER RISK ANALYSIS AND MANAGEMENT

COURSE INSTRUCTORS: DR. SAURAV

MAX. TIME: 1 Hour

Note: (a) All questions are compulsory.

(b) The candidate is allowed to make Suitable numeric assumptions wherever required for solving problems

| Q.No | Question  | CO | Marks |
|------|---|----|-------|
|      | Differentiate between hazards and vulnerability. Explain the key phases of disaster         | 1  | 4     |
| Q1   | management in detail.   |    |       |
| Q2   | Explain in Detail the Characteristics and Damage Potential of Natural Hazards. Explain      | 2  | 5     |
|      | the first response in case of natural disaster Earthquake and Wild Fire. What is a          |    |       |
|      | landslide, and what steps should be taken to respond to it in an emergency situation?       |    |       |
| Q3.  | i) Given that A and B are events with $P(A) = 0.6$ , $P(B) = 0.3$ and $P(A \cap B) = 0.2$ , | 2  | 6     |
|      | find $P(A B)$ .   |    |       |
|      | ii) If probability mass function of a random variable X is given by                         |    |       |
|      | $p_X(x) = \frac{b\lambda^{\lambda}}{\lambda!}, x = 0,1,2,\ldots,\lambda > 0.$               |    |       |
|      | Find the numerical values for   |    |       |
|      | a) $P[X=1]$   |    |       |
|      | <b>b)</b> $P[X > 3]$  |    |       |