

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -3 EXAMINATION- 2024

PhD -I Semester (CE)

COURSE CODE (CREDITS): 18P1WGE101

MAX MARKS. : 25

COURSE NAME: RESEARCH METHODOLOGIES INCL QUANTITATIVE METDS &
COMP APPLS – Third Module

COURSE INSTRUCTORS: Dr. Niraj Singh Parihar

MAX. TIME: 2 Hours

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
Q1	Explain the concept of slope stability and how the stability of slope is determined. Describe the role of vegetation and bio-engineering in improving the same.	CO-1	5
Q2	Enlist the plant species commonly used for slope stabilization in hilly regions and mention their peculiar characteristics and suitability to soil and the application site.	CO-3	5
Q3	Consider a steep slope in a region with frequent rainfall. Explain the process of selecting appropriate vegetation to stabilize the slope. Include considerations of soil type, root depth and climate.	CO-3,4	5
Q4	Briefly discuss the application of vegetative bio-engineering in mitigating both shallow and deep-seated landslides. Also enlist the merits of using the same over conventional slope stability measures.	CO-4	5
Q5	Define geogrid and its application in slope protection. Also present few applications of vegetative geogrids in prevention of landslides.	CO-4	5