

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT
TEST -2 EXAMINATIONS- 2023

B.Tech-VII Semester (CE)

COURSE CODE (CREDITS): 18B1WCE732 (3)

MAX. MARKS: 25

COURSE NAME: Environmental Management and Impact Assessment

COURSE INSTRUCTORS: Dr. Rishi Rana Kalia

MAX. TIME: 1 Hour 30 Minutes

Note: (a) All questions are compulsory.

(b) Marks are indicated against each question in square brackets.

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

Q.1 Define the terms: Biosphere, Ecology and Ecosystem?

[3 Marks] (CO-3)

Q.2 what are environmental indicators? How are they utilized in assessment of projects?

[4 Marks] (CO-3)

Q.3 Discuss the impacts of mining activities on physico-chemical and biological environment?

[4 Marks] (CO-4)

Q.4 (a) Define environmental scanning?

[2 Marks] (CO-2)

(b) The BOD of a sample from industry incubated for one day at 30°C has been found to be 110 mg/l. what will be the 5-day 20°C BOD? Assume $K_1=0.1$ at 20°C.

[5 Marks] (CO-3)

Q.5 Discuss the salient features of simple interaction matrix? Identify the projects where this methodology is applied for identification of impacts?

[4 Marks] (CO-4)

Q.6 Tests for common ions are run on a sample and results show the concentration of various cations and anions. If 10% error in the balance is acceptable, calculate the percentage error.

Cations	Conc. (mg/L)	Anions	Conc. (mg/L)
Ca ²⁺	175	HCO ₃ ⁻	320
Mg ²⁺	121	SO ₄ ²⁻	99
Na ⁺	198	Cl ⁻	90

[3 Marks] (CO-3)