05 | 3:30 P.M

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATION- 2026

M.Tech Ist Semester (CE)

COURSE CODE (CREDITS): 18M11CE111 (3) MAX. MARKS: 15

COURSE NAME: Environmental Chemistry & Microbiology

COURSE INSTRUCTORS: Dr. Rishi Rana Kalia 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

(c) ***Use of Calculator allowed***

Q.No	Question	CO	Marks
Q1	Describe the reaction kinetics with reference to different environmental systems.	CO-1	4 Marks
Q2	Identify the various reactions that neutralize soil acidity.	CO-1	3 Marks
Q3	What is Henry's law?	CO-2	2 Marks
Q4	How many rams of calcium will be required to combine with 120 g of calcium carbonate to form calcium carbonate?	CO-2	3 Marks
Q5	Tests for common ions are run on the sample of water and results are given below. If a 10% error in the balance is acceptable, should the analysis be considered complete? At. Wt of Ca-40; Mg- 24.3; Na-23; HCO_3 – 61; SO_4-96; Cl-35.5 Constituents Ca^{2+}= 65 mg/L HCO_3^-= 260 mg/L Mg^{2+}=28 mg/L SO_4^{2-}=70 mg/L Na^+=108 mg/L Cl^-=99 mg/L	CO-2	3 Marks

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