

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT
TEST -1 EXAMINATION- 2024
B.Tech-I Semester (CE)

COURSE CODE(CREDITS): 10M11CM211 (3)

MAX. MARKS: 15

COURSE NAME: Construction Cost Analysis

COURSE INSTRUCTORS: Mr. Kaushal Kumar

MAX. TIME: 1 Hour

Note: (a) All questions are compulsory. (b) Marks are indicated against each questions.

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

Q1. Discuss in details the “*Quantifying alternatives for decision making*”. CO-1 [3 Marks]

Q2. In construction cost analysis, what do you mean by “*Equivalence*”? What are the equivalent amounts of Rs.10000 (today) at an interest rate of 10% per year for the following cases? a) 1 year from now (future) b) 1 year before CO-1,2 [3 Marks]

Q3. While comparing the alternatives in construction management. The most common basis of comparison are: (a) The Present worth amount (b) The Annual equivalent amount (c) The Capitalized amount. (d) The rate of Return method. CO-2 [4 Marks]

Q4. Two plans are available for constructing a plant which will have same income per year at all times. Plan (A) is to build half size plant now at the cost of Rs 1 million with operating cost of Rs. 200,000 per year for the first four years. At the end of 4th year, an additional costing of Rs. 900,000 will be installed to double the capacity. Operating cost thereafter are Rs. 350,000 per year.

Plan (B) is to build full scale plant now at the cost of Rs. 1.5 million with operating cost of Rs. 250,000 per year for the first 4 years and Rs. 300,000 per year thereafter.

If money worth is 12% per year and a period of 10 yrs ahead is the basis for comparison which plan should be chosen? CO-2 [5 Marks]