JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATION- 2024

M.Tech-II Semester (CSE)

COURSE CODE(CREDITS): 22M1WCI231(3) MAX. MARKS: 15

COURSE NAME: Advanced Computational Techniques

COURSE INSTRUCTORS: Dr. Anita MAX. TIME: 1 Hour

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

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Q1. What are different types of errors while doing computation? Explain in detail. (3)CO-4

Q2. What is the need of secant method? (2) CO-6

Q3. What is method of false position? Solve $x\log_{10}x=1.2$ to find real root correct to three decimal places. (3) CO-6

Q4. Find a real root of the equation $x^3-x-1=0$ using Newton-raphson method, correct to four decimal places. (3) CO-6

Q5. Find the roots of the equation $x^3-x-1=0$ using Muller's method. (4) CO-6

All the Best!