JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -2 EXAMINATION- APRIL-2023

COURSE CODE(CREDITS): 19B11CI411 (3) MAX. MARKS: 25

COURSE NAME: SOFTWARE ENGINEERING PRACTICES

COURSE INSTRUCTORS: Dr. Pardeep Kumar MAX. TIME: 1 Hour 30 Minutes

Note: All questions are compulsory. Marks are indicated against each question in square brackets.

Q1. Prove that Halstead software science length estimation formula $N = \eta_1 \log_2 \eta_1 + \eta_2 \log_2 \eta_2$ where N is the length of the software to be developed and η_1 and η_2 be the number of unique operators and operands to be used in the software project. [5][CO-3]

Q2. Assume that the size of an organic type software product has been estimated to be 32,000 lines of source code. Assume that the average salary of software engineers be Rs. 15,000/- per month. Determine the effort required to develop the software product and the nominal development time as per basic COCOMO model. [5][CO-3]

Q3. Consider the activity network representation of the management information system (MIS) of company given as under and draw the critical path:
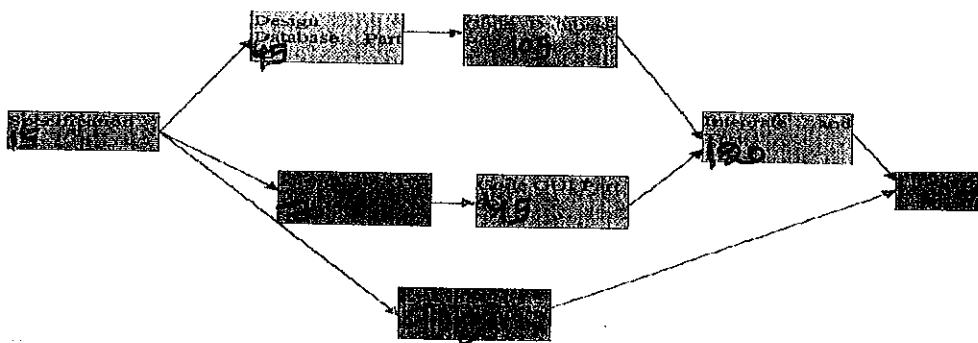
[8][CO-4]

Q4. Name any five software configuration items in software industry. Name and explain two principal activities to manage software configuration management with suitable examples.

[CO-4] [2+3]

Q5. How priority of risks is computed to rank them in terms of their damage causing potential in software industry? [CO-3] [2]