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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
ANNA UNIVERSITY, CHENNAI-25.

AU CHENNAI 600 025

B.E END SEMESTER EXAMINATION - NOV/DEC 2023

B.E(Computer Science and Engineering)
Seventh Semester

(Regulation 2018 - RUSA)

CS6022 – Software Project Management

Time: 3 Hours **Answer ALL Questions** **Max.Marks:100**

Instructions:

- Write your Register Number at the top of each page of the answer sheets.
- **Put your signature at the bottom of each page of the answer sheets.**

PART-A (10 x 2 = 20 Marks)

Q.No	Question	Max marks	CO Mapping
1.	What is the need of feasibility study in software process?	2	CO 1
2.	List out the ways to evaluate the required functionality of the hardware and software?	2	CO 1
3.	Differentiate programme managers versus project managers	2	CO 2
4.	How dependency diagram differ from activity network	2	CO 3
5.	State Parkinson's law and Brook's law on under and over estimate in a project.	2	CO 3
6.	What is dangle?	2	CO 4
7.	Draw the principles of Theory X & Y.	2	CO 5
8.	Give two different axes of leadership styles.	2	CO 5
9.	Calculate the effort for the system size 3 KLOC while the productivity rate is 40 days per LOC.	2	CO 5
10.	How the progress and effectiveness of the project can be measured ?	2	CO 6

Part – B (8x8=64 marks)

Answer any 8 questions

Q.No	Question	Max marks	CO Mapping
11.	With necessary diagram, explain stepwise project planning.	8	CO 1

12.	Explain the various cost involved in the life of project analysis.	8	CO 2
13.	Elaborate the various quality indicators and management indicators used for managing a modern software process and give the overview of each.	8	CO 2
14.	Discuss the need of analyzing risk before start the project. What are the various risk may occur in software development process. Detail risk identification and risk evaluation with an sample scenario.	8	CO 3
15.	With an example, explain earned value analysis.	8	CO 5
16.	Consider a system for office automation is to be designed with the requirements of five modules of size 1.5 KLOC, 2.0 KLOC, 2.5 KLOC, 1.0 KLOC, and 2.0 KLOC respectively. Complexity and reliability requirements are high. Also the programmers' capability and experience is low and all other factors are of normal rating. Use COCOMO model to determine the overall cost and schedule estimates.	8	CO 5
17.	Discuss the important factors of Oldham Hackman job characteristic model.	8	CO 3
18.	List out various data visualization techniques should a progress manager use when presenting data by considering the key factors of audience, purpose of presentation and also the type of data	8	CO 3
19.	Elaborate the approaches to identify the activities or tasks that make up the project.	8	CO 3
20.	Calculate the productivity rates and using productivity rates to the project effort. Project / Work-months / SLOC / Productivity(SLOC/month) A 16.7 6050 362 B 22.6 8363 370 C 32.2 13334 414 D 3.9 5942 1524 E 17.3 3315 192 F 67.7 38988 676 G 12.1 38614 3823 H 19.3 12762 661 I 59.5 26,000 445 Calculate the estimated effort.	8	CO 5
21.	Is it necessary whether data is related to productivity and quality? Should be made public within software organizations at the team and project levels. Justify it.	8	CO 5
22.	Compute the function point value for a project with the following information domain characteristics: i)Number of user inputs = 40 ii)Number of User Outputs = 52 iii)Number of User Enquiries=16 iv)Number of Files=09 v)Number of External Interfaces = 12 In addition to the above the system requires Significant Data Communication, Performance level is very critical, Designed code is moderately reusable, Systems is not designed for multiple installations in different organizations. Other Complexity adjustment factors are treated average.	8	CO 4

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Part – C (2x8=16 marks)

23.	Create a precedence activity network and find the critical path for the following details Activity / Precedence / Duration A / - / 6 B / A / 7 C / B / 6 D / A / 5 E / D / 10 F / B / 15 G / B / 4 H / G,H / 8 I / C,D / 4 J / G / 4 K / E / 5 L / I / 3	8	**CO 4**
24.	Design your organizational structure by incorporating the parameter such as cost of your project, technical requirements, locations and working relationships which can influence your structure and discuss how?	8	**CO 5**