

Register Number:

Date:

**ST. JOSEPH’S UNIVERSITY, BANGALORE - 27**

**M.Sc(COMPUTER SCIENCE): II SEMESTER**

**END SEMESTER EXAMINATION: APRIL 2024**

(Examination conducted in May/June 2024)

**CS 8521-SOFTWARE PROJECT MANAGEMENT**

**(for current batch students only)**

**Time: 2 Hrs. Max Marks - 50**

**This paper contains two printed pages and three parts.**

**Part A**

**Answer all of the following questions 2x5=10**

1. Identify and discuss two aspects that differentiate a software project from a traditional project.
2. Compare and contrast between sprint review and sprint retrospective.
3. Compose a concise explanation regarding pair programming, focusing on understanding, application, and analysis of its principles
4. List any two challenges encountered with under estimation while planning for a software project
5. Illustrate how egoless programming can lead to improved code quality and team dynamics in project environments.

**Part B**

**II Answer Any Five of the following 4x5=20**

1. Delve into the intricacies of any **four** key principles of agile methodology in software project management, elucidating their significance on project outcomes.
2. Elaborate on the responsibilities and functions of a product manager in a scrum framework , providing a detailed explanation, and offer an overview of the purpose and structure of the product backlog.
3. Analyze and compare the top-down and bottom-up estimation techniques in project management., highlighting their respective advantages, limitations, and applicability in different project scenarios.
4. Illustrate a Resource allocation graph for a project that runs for a span of **6 months** with **4 members** involved, mentioning the different phases of the project.
5. Elaborate on the mental obstacles hindering effective decision-making processes, and propose strategies to overcome them within the framework of decision-making.
6. Give a detailed analysis of Taylorist model in managing people in software environments.
7. Write a short note on all the steps involved in Risk Management.

**PART C**

**Answer any two of the Following questions 10X2=20**

1. Illustrate and explain the roles and responsibilities of the members involved in scrum framework.
2. Critically evaluate any ***four*** characteristics and significance of ISO 9126 in software quality management, elaborating on its key principles and impact on software development processes.
3. From the table given below draw the precedence network

And identify the critical path with a mention of forward pass and backward pass.

|  |  |  |
| --- | --- | --- |
| **Activity** | **Duration in weeks** | **Precedents** |
| A: hardware selection | 6 | - |
| B:system configuration | 4 | - |
| C:install hardware | 3 | A |
| D: data migration | 4 | B |
| E:draft office procedures | 3 | B |
| F:recruit staff | 10 | - |
| G:user training | 3 | E,F |
| H: install and test system | 2 | C,D |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*