CE1.4-R4: PROJECT MANAGEMENT

NOTE:

> 1. **Answer question 1 and any FOUR from questions 2 to 7.**
> 2. **Parts of the same question should be answered together and in the same sequence.**

Time: 3 Hours   **Total Marks: 100**

1.
a) Why is Project Management important to the Software Development Process? What are the different activities in Project Management?
b) What are the factors that influence software projects to help them to succeed?
c) What is the problem with protyping model for Software Project Management?
d) What are the factors affecting the accuracy of project estimation?
e) What are the different inputs required to create a project schedule?
f) Explain what is the role of acceptance testing?
g) Why software reliability always takes precedence over efficiency? Explain in brief.

(7x4)

2.
a) What is the Make/Buy Decision? Why is it necessary to create Decision Trees?
b) Describe the estimation of project effort using COCOMO model.
c) The process of project planning is non-iterative. Yes or no? Justify your answer with a suitable explanation.

(6+6+6)

3.
a) Explain the relationship between software configuration management and software maintenance.
b) Mention the 4 P's in project management. Explain their relationship with the project manager.
c) What are the salient features of ISO 9001 requirements and explain them in detail?

(6+6+6)

4.
a) Define Function Point. Explain estimation of software size using function points. How are the efforts involved in a project estimated using FP count?
b) Discuss the primary causes of poor software quality and how to mitigate their damaging effects.
c) Explain the key process areas associated with the levels of CMMI.

(6+6+6)

5.
a) What is software reliability? Describe the types of uncertainty addressed in software reliability growth models.
b) List the various elements of Software Quality Assurance and brief them.
c) What skills does a project manager need? Explain the need of Gantt chart and work break down structure of SPMP.

(6+6+6)

6.

a)   Distinguish between work break down structures and product break down structure.

b)   Discuss the salient issues involved in Planning, Estimation and Scheduling.

c)   Explain how the project manager would carry out risk analysis? What would be its outcome? How would the outcome of the risk analysis be used to manage the risk? What is early risk resolution?

(6+6+6)

7.

a)   The maintenance of a software product is inversely proportional to its quality. Elaborate.

b)   Discuss, how SCCS and RCS can be used to efficiently manage the configuration of source code.

c)   Discuss the procedure for estimating project duration and determining staffing pattern.

(6+6+6)