B5.1-R4: SOFTWARE 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) Describe any three techniques used in Project Scheduling.
b) Describe the Function Point Analysis.
c) What do you mean by Work Breakdown Structure (WBS)? Describe the steps to build a work breakdown structure (WBS).
d) What is Payback Analysis in Software Projects?
e) Define Software Quality Assurance.
f) What is Risk Tracking?
g) What are the major impacts of design defect?

(7x4)

2.

a) Discuss the concept of PERT/CPM in defining an optimal schedule.
b) What is Earned Value Analysis and why do we need it?
c) What is Gantt chart used for? Give relevant example and discuss the same.

(6+6+6)

3.

a) Write a short note on software engineering institute's capability Maturity Model (SEI-CMM). How does it differ from ISO 9000?
b) Explain the stages of Project Management life cycle.

(9+9)

4.

a) Describe the importance of team leader in a software project. What are the major characteristics that a team leader should have?
b) What is the difference between Spiral Model and Prototype model in software engineering and also state some difference between Throwaway and Evolutionary prototyping.

(9+9)

5.

a) Explain COCOMO Model. How it can be used to estimate the cost of software project.
b) What are software metrics? What is the role of metrics in project and process management?

(9+9)

6.

a) Describe the role of following in Project control and closure:
   i) Causal and Pareto Analysis.
   ii) Project Closure Analysis.
b) What are project management issues in development of web-based projects? Explain.

(10+8)

7.

a) Draw the Context level DFD for the Safe Home Software.

b) For the following project details:

Activity	Immediate Predecessor Activity	Duration (Week)
A	-	3
B	A	5
C,D	A	7
E	B	10
F	C	5
G	D, E	4

i) Develop a network diagram for the project.

ii) Determine the Critical Path, critical activities, and project completion time.

(8+10)