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NOIDA INSTITUTE OF ENGINEERING AND TECHNOLOGY, GREATER NOIDA
(An Autonomous Institute Affiliated to AKTU, Lucknow)

M.Tech Integrated

SEM: VII - THEORY EXAMINATION (2025 - 2026)

Subject: Software Project Management

Time: 3 Hours

Max. Marks: 100

General Instructions:

IMP: Verify that you have received the question paper with the correct course, code, branch etc.

1. This Question paper comprises of **three Sections -A, B, & C**. It consists of Multiple Choice Questions (MCQ's) & Subjective type questions.

2. Maximum marks for each question are indicated on right -hand side of each question.

3. Illustrate your answers with neat sketches wherever necessary.

4. Assume suitable data if necessary.

5. Preferably, write the answers in sequential order.

6. No sheet should be left blank. Any written material after a blank sheet will not be evaluated/checked.

SECTION-A

20

1. Attempt all parts:-

- 1-a. Quality planning is the process of developing a quality plan for_____.(CO1,K1) 1
- (a) customers
- (b) project manager
- (c) team
- (d) project
- 1-b. Effective software project management focuses on (CO1,K2) 1
- (a) People, Performance, Payoff, Product
- (b) People, Product, Process, Project
- (c) People, Process, Payoff, Product
- (d) People, Product, Performance, Process
- 1-c. The environment that supports the software project is called (CO2,K2) 1
- (a) CLSS
- (b) SEE
- (c) FAST
- (d) CBSE
- 1-d. PERT (Project Evaluation and Review Technique) analysis is based on. (CO2,K2) 1
- (a) Optimistic time, Pessimistic time and Most likely time
- (b) Pessimistic time, Optional time, Maximum time
- (c) Optimistic time, Efficient time, Most likely time Minimax time, Optimistic time and harmonic time
- (d) between normal time and crash time

- 1-e. Risk projection attempts to rate each risk in two ways.(CO3,K2) 1
- (a) likelihood and cost
 - (b) likelihood and impact
 - (c) likelihood and consequences
 - (d) likelihood and exposure
- 1-f. _____ are unplanned responses to risk events used when project teams do not have contingency plans in place.(CO3,K2) 1
- (a) Workarounds
 - (b) Fallback plans
 - (c) Contingency plans
 - (d) Triggers
- 1-g. The major functions in business organizations are:(CO4,K2) 1
- (a) Overlapping
 - (b) Independent of each other
 - (c) Dependent on each other
 - (d) none of these
- 1-h. A product is built in a series of repetitions called ____ (CO4,K2) 1
- (a) Scrum
 - (b) Kanban
 - (c) Sprints
 - (d) None
- 1-i. Degree to which design specifications are followed in manufacturing the product is called(CO5,K1) 1
- (a) Quality Control
 - (b) Quality of conformance
 - (c) Quality Assurance
 - (d) None of the mentioned
- 1-j. ISO 9000 seeks standardization in terms of. (CO5,K2) 1
- (a) Products
 - (b) Production procedures
 - (c) Suppliers' specifications
 - (d) Procedures to manage quality
2. Attempt all parts:-
- 2.a. define the term Project Estimation Techniques with suitable examples.(CO1,K2) 2
- 2.b. Discuss project plan with suitable examples.(CO2,K2) 2
- 2.c. Describe deliverables work break down structure in brief. (CO3,K3) 2
- 2.d. According to you what are the popular agile methods used.(CO4,K3) 2
- 2.e. State the characteristics of quality software. (CO5,K2) 2

SECTION-B

30

3. Attempt all parts:-

3.a. Answer any <u>one</u> of the following:-	
3.a.(i) Describe the basic components of a Gantt chart and provide a detailed explanation of each component.(CO1,K2)	6
3.a.(ii) Write and explain Predictive Life Cycle model in details.(CO1,K3)	6
3.b. Answer any one of the following:-	
3.b.(i) Write and explain the characteristics of software project management. (CO2,K3)	6
3.b.(ii) Describe the key features of project management tools. (CO2,K3)	6
3.c. Answer any one of the following:-	
3.c.(i) Describe the process for identifying risks and provide a detailed explanation. (CO3,K3)	6
3.c.(ii) Explain how you will identify the major risks.(CO3,K2)	6
3.d. Answer any one of the following:-	
3.d.(i) Differentiate between Agile and traditional project management (Waterfall)?(CO4,K3)	6
3.d.(ii) Discuss the responsibilities of a Scrum Master.(CO4,K3)	6
3.e. Answer any one of the following:-	
3.e.(i) State the difference between QA and software testing.(CO5,K3)	6
3.e.(ii) List out the software quality practices through the software development cycle?(CO5,K2)	6
<u>SECTION-C</u>	50
4. Answer any <u>one</u> of the following:-	
4-a. Define the vision and scope of a project and provide an explanation with an example. (CO1,K3)	10
4-b. Compare iterative Life Cycle and incremental Life Cycle. (CO1,K4)	10
5. Answer any <u>one</u> of the following:-	
5-a. Explain the network planning models and state the basic difference between PERT and CPM. (CO2,K2)	10
5-b. Describe effective techniques for managing constraints in project management.(CO2,K3)	10
6. Answer any <u>one</u> of the following:-	
6-a. Describe Risk management? Explain in detail with suitable example.(CO3,K3)	10
6-b. Differentiate between Risks,Contracts and Procurement. (CO3,K3)	10
7. Answer any <u>one</u> of the following:-	
7-a. State and explain some of the Agile quality strategies.(CO4,K2)	10
7-b. Explain the difference between an organizational structure and an organization design? Give five (5) types of organizational structure. (CO4,K3)	10
8. Answer any <u>one</u> of the following:-	
8-a. State and explain ISO 9126 Software Quality Characteristics. (CO5,K2)	10
8-b. Describe the concept of project termination and its necessity in the project lifecycle. (CO5,K3)	10