INDIAN STATISTICAL INSTITUTE

Bangalore Centre

Program: -MS (Quality Management systems)

Course: -Project Management

END SEMESTER EXAMINATION

MAX MARKS: 100

Instructions to the Candidates:

The question paper Consists of Four Parts. Part –A is short answer type question and fill in the blanks type questions meant to test your conceptual understanding of the subject taught to you. Each Question carries 1 Marks. This section is compulsory. Part B and Part C Consists of five marks questions and ten marks questions to test your ability to get into the subject in detail. Part D Consists of questions on the basis of a case study- this tests your ability to apply the knowledge to real world problem situations and scenario's.

Part A has a weight age of 20 marks and is compulsory. Part B & C Consists of questions with allocation of 5 marks and 10 marks each with a total allocation of 30 & 30 marks respectively. The total marks for section B & C Put together is 60 marks. Part D is a case study problem which is compulsory. The case study carries 20 Marks.

PART A

Fill in the Blanks (10 questions)

1. In Project Cost Management, the _____ process involves monitoring project costs and managing changes to the cost baseline.
2. The _____ is a document that outlines the total approved budget for a project.
3. The Earned Value (EV) formula is _____ x Percent Complete.
4. In Project Communication Management, _____ is used to summarize project progress at intervals throughout the project.
5. _____ is the process of developing an appropriate approach for communications based on stakeholder needs and project requirements.
6. The tool used in Project Human Resource Management to organize project roles and responsibilities is called the _____ chart.
7. The _____ process in Project Procurement Management involves obtaining seller responses, selecting a seller, and awarding a contract.
8. _____ analysis in Project Risk Management helps identify which risks might affect the project and documents their characteristics.
9. The _____ risk management technique helps allocate ownership and response responsibility for each risk.
10. A _____ is a potential event or condition that, if it occurs, has a negative effect on a project's objectives.

Short Answer Type (10 questions)

11. What is the main objective of Project Cost Management?
12. Explain the concept of Cost Baseline in a project.
13. What is the purpose of a Communication Management Plan?
14. How does a Responsibility Assignment Matrix (RAM) help in Human Resource Management?
15. Define "Make or Buy Analysis" in Project Procurement Management.
16. What is qualitative risk analysis?
17. How does quantitative risk analysis differ from qualitative risk analysis?
18. What are project reserves, and why are they used in cost management?
19. Name two common tools or techniques for managing communication in projects.
20. What is the role of a risk register in project management?

PART B (5 *6=30 Marks) (Answer any six out of the eight questions each question carries 5 marks each)

1. Explain the concept of Cost Baseline and its importance in project cost management.
2. What are some common barriers to effective communication in projects, and how can they be mitigated?
3. Explain Maslow's Hierarchy of Needs and its application in motivating project team members.
4. Describe the concept of contract administration and its importance in ensuring contract compliance.
5. Describe the concept of risk appetite and risk tolerance, and explain how they influence project risk management strategies.
6. What is the difference between direct and indirect costs in a project? Provide examples of each.
7. Explain the process and importance of feedback in project communication.
8. Describe the role and importance of a Responsibility Assignment Matrix (RACI) in managing project teams.

PART C (3*10 Marks each) (Answer any 3 from the 6 each question carries 10 Marks)

1.Discuss the key processes involved in Project Cost Management and explain how each process contributes to maintaining budgetary control throughout the project life cycle.

2. How can effective Project Communication Management improve team coordination and stakeholder engagement? Illustrate your answer by discussing various communication methods and tools used in project management.

3. Explain the process of developing a project team, including techniques for building a collaborative environment. Discuss the importance of team roles, responsibilities, and effective conflict.

4.Identify and analyse the steps in the project risk management process. Explain how qualitative and quantitative risk assessments contribute to effective risk response planning.

5. The Following information pertaining to a Project is given to you.

Activity Code	Immediate Predecessors	Time
A	-	4
B	A	6
C	A	8
D	A, B	4
E	A,B	6
F	C	4
G	D,E	8
H	F,G	5

   i.   Develop the project network.
   ii.   Compute the EST, EFT, LST, LFT and identify the critical path.
   iii. What is the project duration?
   iv. Determine the Total Float for each of the activity.

6.An R & D project has a list of tasks to be performed whose time estimates are given in the table as follows.

Activity	Activity Name	Time in Days		
		to	tm	tp
1-2	A	6	8	10
1-3	B	4	5	12
1-4	C	8	10	12
2-4	D	1	2	3
3-4	E	8	9	10
3-5	F	6	7	14
4-6	G	3	5	7
4-7	H	4	11	12
5-7	I	2	4	6
6-7	J	2	9	10

i. Draw the project network.

ii. Find the critical path.

iii. Find the probability that the project is completed in 19 days

PART D (Case Study) (20 Marks)

Project Human Resource Management

Case Study Title: Organizing the Right Team for a Product Launch

Background:

Innova Solutions, a small tech company, has initiated a project to launch a new mobile app within six months. The company's Project Manager, Sarah, is tasked with leading a team to handle the development, marketing, and customer support for the app. Sarah has gathered team members from different departments but faces challenges in aligning their efforts toward a common goal. The team includes developers, marketers, and customer support staff, each with their own priorities and working styles.

Challenges Faced:

1. Team Development and Collaboration:

   Sarah finds that her team members have difficulty working together, as they come from different departments and have limited prior experience in cross-functional projects. This has led to a lack of coordination and misunderstandings regarding project goals.

2. Role Clarity and Task Allocation:

   Team members are unclear about their specific roles and responsibilities within the project, leading to overlapping efforts in some areas and neglected tasks in others.

3. Motivation and Performance:

   Sarah notices that some team members are not fully motivated, as they feel their contributions are not being recognized. This has started to affect productivity and morale.

4. Communication:

   Due to a lack of structured communication, team members often miss out on important updates, which slows down the project and creates unnecessary rework.

Tasks:

Sarah needs to:

1. Establish clear roles and responsibilities for each team member to avoid duplication of work and ensure that all project aspects are covered.

2. Improve team communication by setting up regular meetings and creating channels for quick updates and feedback.

3. Implement motivational strategies to encourage team members and keep them engaged throughout the project.

4. Evaluate team performance and provide constructive feedback to help members improve and feel appreciated.

Questions for Analysis (20 Marks):

1. Team Development and Role Clarity (5 Marks): Explain the steps Sarah could take to develop the team and ensure each member understands their role in the project.

2. Communication Improvement (5 Marks): Describe two methods Sarah could use to enhance communication within the team, ensuring everyone stays informed and aligned.

3. Motivation Techniques (5 Marks): Suggest two ways Sarah could motivate her team members and describe how these could impact the team's productivity and morale.

4. Performance Feedback (5 Marks): How can Sarah provide effective feedback to the team to improve performance? Discuss one approach to giving feedback that encourages continuous improvement.