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 objective type questions meant to test your conceptual understanding of the subject taught to you. Each Question carries 2 Marks 1 Mark for picking the right choice and one mark for justifying your selection.
- 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 weight age of 5 marks and 10 marks with a total weight age of 30 & 30 marks respectively. The total marks for section B & C Put together is 70 marks. Part D is a case study problem which is compulsory. This case study carries 20 Marks.

Q. No	Part A	Marks
1	This section is based on MCQ's (Multiple choice questions). Read the questions carefully and choose the most appropriate answer. Write down the question along with the option chosen. A line of reasoning must be added to justify your selection of the appropriate answer. One mark for choosing the appropriate answer and one mark for justification.	**(10 * 2 = 20 marks)**
1.1	Which estimating technique is most accurate? A. Bottom-up estimating B. Analogous estimating C. Parametric modeling D. None of the above	
1.2	Which statement is true about project cost? A. Costs associated with projects are not just the costs of goods procured to complete the project. B. The cost of the labor may be one of the biggest expenses of a project. C. The cost of the equipment and materials needed to complete the project work must be factored into the project expenses. D. All of the above.	
1.3	You are a project manager for an agricultural supply company. You have just completed and obtained sign-off on the scope statement for your new Natural Bug Busters project. A key stakeholder has informed you that a deliverable is missing from the scope statement. This deliverable is a critical success factor. You should do which of the following? A. Inform the stakeholder that work not stated in the scope statement is excluded from the project. B. Modify the scope statement to reflect the new deliverable. C. Inform the stakeholder that this deliverable can be included in the next project	

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	since sign-off has already been obtained. D. Modify the scope statement after an approved change request has been received from the stakeholder.	
1.4	Which organization has set the de facto standards for project management techniques? A. PMBOK B. PMO C. PMI D. PMA	
1.5	The VP of marketing approaches you and requests that you change the visitor logon screen on the company's website to include a username with at least six characters. This is considered: A. Project initiation B. Ongoing operations C. A project D. Project execution	
1.6	The amount of authority a project manager possesses can be related to: A. The project manager's communication skills B. The organizational structure C. The amount of authority the manager of the project manager possesses D. The project manager's influencing skills	
1.7	A project is considered successful when: A. The product of the project has been manufactured. B. The project sponsor announces the completion of the project. C. The product of the project is turned over to the operations area to handle the ongoing aspects of the project. D. The project meets or exceeds the expectations of the stakeholders	
1.8	You have been assigned to a project in which the objectives are to direct customer calls to an Interactive Voice Response system before being connected to a live agent. You are in charge of the media communications for this project. You report to the project manager in charge of this project and the VP of marketing, who share responsibility for this project. Which organizational structure do you work in? A. Functional organization. B. Weak matrix organization. C. Projectized organization. D. Balanced matrix organization	
1.9	Theory Y managers believe which of the following? A. That people are motivated only by money, power, or position B. That people will perform their best if they're given proper motivation and expectations	

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	C. That people are motivated to achieve a high level of competency D. That people are motivated by expectation of good outcomes activities of the project.	
1.10	Which of the following is not correct about initial phase of a project? A. The cost associated at the beginning of the project is highest. B. Stakeholders have maximum influence during this phase C. The highest uncertainty is at this stage of the project. D. All the above statements are correct.	

	Part B (Short Answers) **(Answer any Six from the Following) Each question carries 5 Marks.**	**30**
2	List out the tools & techniques deployed for cost estimating with brief one line description of the same.	
3.	What are the items of input for resource planning? List them and add few pointers on them.	
4.	List the critical outputs from the quality planning aspect of project quality management. What are the contents of a typical Quality management plan document?	
5.	Briefly discuss the process of organizational planning. Write down the structure of a role and responsibility matrix.	
6.	What are the inputs for an effective process of communication planning? Briefly Highlight the importance of the communication management plan.	
7.	List some of the common sources of risks in the project environment. Elaborate on the impacts of **"poorly defined or understood roles and responsibilities".**	
8.	Mention the features of the following types of contracts i. Fixed price or lump sum contracts. ii. Cost reimbursable contracts. iii. Unit price contracts.	
9.	What are the components in a typical procurement management plan?	
10.	What are the dimensions and means of communicating in a typical project environment? Give two examples of formal and informal means of communicating in a project.	
11.	Briefly explain the process of risk quantification using simulation. Highlight the results from running the Monte-Carlo simulation using project data.	

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	Part C (Answer any three full questions) Each question carries 10 Marks	30
12	 Shown above is a typical risk breakdown structure based on known sources of risks. Elaborate on this risk breakdown structure by identifying risks pertaining to the categories given considering the example of constructing a multi-storied building complex in your campus.	

13.	Illustratively elaborate the concepts underlying following tools and techniques of Quality control. Highlight the key benefits associated with these tools in addressing the quality issues as part of project quality management.
	  ▪ Pareto analysis
	  ▪ Statistical sampling
	  ▪ Six Sigma
	  ▪ Quality control charts	

14.	"Performance Reporting is an important aspect of project communication management and the main role of reporting is that it keeps stakeholders informed about how resources are being used to achieve project objectives " Elaborate on this with the help of examples to cover status reports, progress reports ,project forecasting ,Status review meetings.	

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| 15. | As part of team development the strategy that includes team-building activities, General Management Skills, Reward and recognition systems, Co-location and Training to enhance skills, knowledge, and capabilities of project team are deliberated upon. Explain detail how these tools and techniques can improve the overall team dynamics contributing to increasing the success rates of projects undertaken in organization environments. | |

| 16. | Your company is testing a site for drilling for oil. You may hit a dry well, a small oil well, or a large oil well. Consider the following payoff table (in $ thousand) for your situation: | |

	Dry well	Small oil well	Large oil well
Drill	-5000	1000	6000
Do not drill	0	0	0

a) What are the decision alternatives? What are the states of nature?
b) What would be the best decisions under each of the following criteria
   i) Maximax ii) Maximin iii) Laplace.

| 17. | General Motors (GM) is planning their production strategy for their next model. Three alternatives are being considered for their model Malibu: 30,000, 20,000, and 12,000. GM decides to categorize the demand for Malibu for the next year as either High (H) or Low (L). The payoffs measured in millions of dollars and probabilities of states of nature are presented in the table below. | |

Decision Alternative	High (H)	Low (L)
Produce 30K	29	-12
Produce 20K	18	8
Produce 12K	3	11
Probabilities	0.62	0.38

For this problem, if we want to Construct the decision tree,
1) How many decision nodes are required?
2) How many branches come out of each decision node?
3) How many chance nodes are required?
4) How many branches come out of each chance node?
5) Draw the decision tree. Label each branch completely including probabilities and payoffs.
6) Solve the decision tree and find the best production strategy.

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	PART-D (CASE STUDY)	20
18.	Based on the checklist as given below considering the project as developing a green campus in the context of a sprawling university's huge campus or alternatively constructing an additional terminal in the Bangalore International Airport limited. Discuss the importance of :- • Preparing the detailed project management plan • identifying risks and planning their management/mitigation; • ensuring the project's overall objectives, targets at various key stages, and individuals' responsibilities are clearly understood by all concerned; • monitoring performance against the plan; • highlighting areas of slippage and identifying/initiating corrective action; • completing the project milestone reports prior to meeting with the independent reviewer at key milestones; • ensuring appropriate communication between the members of the project team and other project stakeholders including, where appropriate, the end users; • Ensuring that the project complies with all appropriate procedures and regulations, e.g. human resources, financial and procurement etc.	