

INDIAN STATISTICAL INSTITUTE

Bangalore Centre

Program:-MS (Quality Management Systems)

Course:-Project Management

END SEMESTER EXAMINATION NOVEMBER 2022

Max. Marks: 100

Instructions to the Candidates:

- The question paper Consists of Four Parts.
- Part –A consists of both MCQs and one sentence answer type questions meant to test your conceptual understanding of the subject taught to you. Each Question carries 1 Marks. This section is compulsory. The total weightage for this section is 30 Marks.
- 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 30 marks and is compulsory. Part B & C Consists of questions with allocation of 5 marks and 10 marks each with a total allocation of 20 & 30 marks respectively. The total marks for section B & C Put together is 50 marks. Part D is a case study problem which has two questions answering any one of the two is compulsory. The case study carries 20 Marks.

Q. No. 1	Part A (Multiple Choice Questions)	Marks
a	Which of the following best describes analogous estimating? A. Regression analysis B. Bottom-up estimating C. Less accurate D. More accurate	10
b	You are the project manager for the GHG Project. You are about to create the cost estimates for the project. Which input to this process will help you the most? A. Parametric modeling B. WBS C. Project scope D. Requirements document	
c	You are the project manager for the JKH Project. You have elected to use parametric estimating in your cost estimating for the project. Which of the following is an example of parametric estimating? A. \$750 per ton B. Historical information from a similar project C. Estimates built bottom-up based on the WBS D. Estimates based on top-down budgeting	
d	You are the project manager for a new technology implementation project. Management has requested that your estimates be as exact as possible. Which one of the following methods of estimating will provide the most accurate estimate? A. Top-down estimating B. Top-down budgeting C. Bottom-up estimating D. Parametric estimating	

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e	<p>In your organization, management is referred to as coaches. As a project manager, you are referred to as a project coach. A human resource document should be created to handle this scenario. What should it cover?</p> <p>A. How coaches are separate from managers B. How coaches are the same as managers C. How a coach is to complete his job D. How the project team is to work for a coach</p>	
f	<p>Management has requested that you create a chart depicting all of the project resource needs and the associated activities. Management is looking for which type of chart?</p> <p>A. Roles chart B. A roles matrix C. A roles and responsibilities matrix D. Gantt chart</p>	
g	<p>Which of the following is an example of Theory X?</p> <p>A. Self-led project teams B. Micromanagement C. Team members able to work on their own accord D. EVM</p>	
h	<p>You are the project manager of the PLN Project. The team members are somewhat "afraid" of you as project manager because they see you as management. They know that a negative review from you about their project work will affect their yearly bonus. This is an example of which of the following?</p> <p>A. Formal power B. Coercive power C. Expert power D. Referent power</p> <p>Which of the following statements best describes risk?</p> <p>A. Uncertainty when looking to the future. B. Clarity in future decisions. C. Uncertainty when looking at the past. D. Certainly of not suffering harm or loss.</p>	
i	<p>Which of these is not a source of risk?</p> <p>A. Political Risk B. Technology Risk C. Environmental Risk D. Functional Risk</p>	
j	<p>Which of the following is an act of god?</p> <p>A. Sunshine B. A Hurricane C. McDonalds D. A baby being born</p>	
k	<p>The project manager look into risks associated with _____.</p> <p>A. On the project B. In the Project C. On top of the project D. Beside the project</p>	

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l	Extensive use of _____ communication is most likely to aid in solving complex problems. A. Verbal B. Written C. Formal D. Nonverbal
m	Communications under a contract should tend toward: A. Formal written communication B. Formal verbal communications C. Informal written communication D. Informal verbal communications
n	TQM stands for A. Team Quality Management B. Total Quality Managers C. Team Quality Managers D. Total Quality Management
o	The cost of quality refers to A. The cost to put quality systems and checks in place. B. The additional cost to make better products or services. C. The total cost of all efforts related to quality. D. None of the above.
p	The maximum time that would be required to accomplish an activity, according to the time estimates generated by PERT planners, is referred to as _____ A. The time estimate that is most likely B. Time estimate that is optimistic C. The time estimate that is pessimistic D. The time estimate that is expected
q	The goal of network analysis is to A. Reduce the overall project duration. B. Reduce the entire project cost. C. Keep production delays, interruptions, and conflicts to a minimum. D. Extend the project's entire time.
r	The performance of a specific task in CPM is known A. Dummy B. Event C. Activity D. Contract.
s	In reviewing the project plan, Susan sees that the first prototype is due by October 12. This would be best classified as a A. Project target B. Limit item C. Milestone D. Project objective

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	Answer to the point in a maximum of one line or one sentence. (1 Mark each)	
2.1	Give an example for parametric estimation.	01
2.2	What is the purpose of earned value analysis?	01
2.3	What are the two categories considered in the Herzberg's two factor theory?	01
2.4	Who proposed the theory based on pyramid structure for identifying hierarchy of human needs?	01
2.5	What do RFP and RFQ stand for?	01
2.6	What is Vendor bid analysis?	01
2.7	Why do you need a communication plan in project environments?	01
2.8	"The project's processes and products meet written specifications" Is this to be considered as Fitness for use or conformance to requirements? Justify your answer.	01
2.9	What does the tool and technique of Benchmarking achieve as a result?	01
2.10	What is the benefit of calculating event slacks in the CPM model?	01

	Part B (Short Answers) (Answer any four from the following) Each question carries 5 Marks.	20
3.	Distinguish between with an example each i.Direct versus Indirect Cost. ii.Recurring versus non recurring Cost.	05
4.	List the five items of inputs for team development processes in the knowledge area of project human resource management.	05
5.	Briefly outline the tool and technique for procurement planning Make-or-buy analysis.	05
6.	Distinguish between the entries to be seen in issue log versus entries seen in Risk register.	05
7.	Outline briefly the role of project manager in effectiveness in communication management.	05
8.	Briefly explain the process of continual improvement using the Deming's PDCA Cycle.	05
9.	Outline the processes involved in applying in forward and backward pass techniques as part of Network analysis.	05
10.	What is the role of payoff table in decision analysis? Give the typical format of a payoff table for a decision situation in which there are three states of nature and there are four decision alternatives.	05

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	Part C (Detailed answers expected) (Answer any three full questions) Each question carries 10 marks	30
11.	The three processes involved in managing costs are Estimating costs, Determining Budget and Control costs. Explain in detail the process of Estimating costs.	10
12.	Consider the area of project human resource management and the Four main processes Develop Human Resources Plan, Acquire Project Team, Develop Project Team and Manage Project Team. Take the Example of a project for a web site development for an existing organization as a Software product development project and discuss the importance of human resource planning.	10
13.	Different types of contracts are more or less appropriate for different types of purchases. Explain the features of the following types of contracts a) Fixed price or lump sum contracts. b) Cost reimbursable contracts. c) Unit price contracts.	10
14.	There are five types of strategies or response for managing overall project risk namely i. Avoid ii. Exploit iii. Transfer/share iv. Mitigate/enhance v. Accept Briefly outline these strategies briefly and explain how these strategies help the project organization in managing the risks involved in project risk.	10
15.	Some of the key guidelines for designing effective communication plan are i. Project managers say they spend as much as 90 percent of their time communicating. ii. Focus on group and individual communication needs. iii. Promote the use formal and informal methods for communicating. Explain how these guidelines can help project managers and the organizations in developing effective communication plan documents and implementing these in project situations.	10
16.	Explain how the following Quality management planning tools are to be implemented in Quality management of projects for developing and designing the quality plans i. Affinity diagrams ii. Process decision program charts	10
17.	Christine Phillips is in charge of planning and coordinating next spring's sales management training program for her company. Christine has listed the following activity information for this project:	10

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Activity	Activity Description	Predecessors	Duration
A	Select location	—	2 weeks
B	Obtain speakers	—	3 weeks
C	Make speaker travel plans	A, B	2 weeks
D	Prepare and mail brochure	A, B	2 weeks
E	Take reservations	D	3 weeks

Construct the project network for this project.

- Find all the paths and path lengths through this project network.
- Which of these paths is a critical path?
- Find the earliest start time and earliest finish time for each activity.
- Find the latest start time and latest finish time for each activity.
Find the slack for each activity.

PART-D(CASE STUDY) ANSWER ANY ONE		20
18	<p>Project teams work together to achieve common goals. Through interaction they strive to enhance their creativity, Innovation, Problem Solving, decision making, morale and team performance. As a team leader of a project related to development of solutions to build green campus for the benefit of faculty and students of ISI Bangalore centre you are responsible for designing and building the team.</p> <p>There are many challenges for building a team, Outline your strategies for building the team for the project you consider. Your presentation should consider the following :-</p> <ol style="list-style-type: none">Team Selection Techniques.Ideal team size before subdivision.Why teams win, Why teams fail.Team Development phases. (Forming, Storming, Norming, Performing, Maturing, Declining). <p>Does the team leader need to be a technical expert in developing environment friendly campus for inmates? Why or Why not?</p>	
19	<p>Apache Metals is an original equipment manufacturer of metal working equipment. The majority of Apache's business is as a supplier to the automotive, appliance, and building products industries. Each production line is custom designed according to application, industry, and customer requirements. Project managers are assigned to each purchase order only after the sales department has a signed contract. The project managers can come from anywhere within the company. Basically, anyone can be assigned as a project leader. The assigned project leaders can be responsible for as many as ten</p>	

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<p>purchase orders at one time. In the past, there has not been enough emphasis on project management. At one time, Apache even assigned trainees to perform project coordination. All failed miserably. At one point, sales dropped to an all-time low, and cost overruns averaged 20–25 percent per production line. In January 1997, the board of directors appointed a new senior management team that would drive the organization to excellence in project management. Project managers were added through recruitment efforts and a close examination of existing personnel. Emphasis was on individuals with good people and communication skills. The following steps were implemented to improve the quality and effectiveness of the project management system:</p> <ul style="list-style-type: none">• Outside formal training for project managers• Development of an apprenticeship program for future project managers• Modification of the current methodology to put the project manager at the focal point• Involvement of project managers to a greater extent with the customer <p>QUESTIONS :-</p> <ol style="list-style-type: none">1. What problems can you see in the way project managers were assigned in the past?2. Will the new approach taken in 1997 put the company on a path to excellence in project management?3. What skill set would be ideal for the future project managers at Apache Metals?4. What overall cultural issues must be considered in striving for excellence in project management?5. What time frame would be appropriate to achieve excellence in project management? What assumptions must be made?	
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