

SRM VALLIAMMAI ENGINEERING COLLEGE

(An Autonomous Institution)

SRM Nagar, Kattankulathur – 603 203

DEPARTMENT OF INFORMATION TECHNOLOGY

(Common to Department of Computer Science Engineering)

QUESTION BANK



VII SEMESTER

1908702 SOFTWARE PROJECT MANAGEMENT

Regulation – 2019

Academic Year 2025 – 2026 (Odd Semester)

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SUBJECT : 1908702 SOFTWARE PROJECT MANAGEMENT

SEM/ YEAR : VII / IV

UNIT I - PROJECT EVALUATION AND PROJECT PLANNING

Importance of Software Project Management –Activities Methodologies –Categorization of Software Projects –Setting objectives –Management Principles –Management Control –Project portfolio Management–Cost-benefit evaluation technology –Risk evaluation –Strategic program Management – Stepwise Project Planning.

PART-A

Q. No.	Questions	BTL	Competence
1	Define software project management.	BTL1	Remembering
2	Recall project and process.	BTL1	Remembering
3	Outline the characteristics of software project planning.	BTL2	Understanding
4	Which factor decides the success of project?	BTL1	Remembering
5	List the elements of product process.	BTL1	Remembering
6	Infer the characteristics that makes software project different from another project.	BTL2	Understanding
7	Relate contract management with technical project management.	BTL2	Understanding
8	Find the characteristics of software projects.	BTL1	Remembering
9	Compare program managers with project managers.	BTL2	Understanding
10	Illustrate plans, methods and methodologies.	BTL2	Understanding
11	What are the different stages in classic project life cycle?	BTL1	Remembering
12	Do you agree that decision trees are helpful in risk handling? Explain.	BTL2	Understanding
13	Extract the three successive processes that bring a new system.	BTL2	Remembering
14	Classify the software projects.	BTL2	Understanding
15	Name the problems with software project from manager’s point of view.	BTL1	Remembering
16	What do you mean by the terms invisibility, complexity and complexity of software project management?	BTL1	Remembering
17	Infer the things that are containing the product description.	BTL2	Understanding
18	Tell the approaches of portfolio management.	BTL1	Remembering
19	Show the hierarchical diagram of a sample PBS.	BTL2	Understanding
20	When net present value is calculated for a project?	BTL1	Remembering
21	Find the need for risk evaluation.	BTL1	Remembering
22	Summarize the problems with software projects.	BTL2	Understanding
23	List the steps to identify project scope and objectives.	BTL1	Remembering
24	Demonstrate the impact of ROI for the software project development scenario that has net profit as \$60,000 for 3 years where the total investment is \$100,000.	BTL2	Understanding

PART B				
Q. No.	Questions		BTL	Competence
1	(i) List the phases of software project management. Illustrate the problems associated with software project.	(7)	BTL4	Analyzing
	(ii) Distinguish between infrastructure projects and software projects and explain the activities involved in management.	(6)		
2	Identify the various activities covered by software project management.	(13)	BTL3	Applying
3	Discover the various activities to be performed in “Analyzing the Project Characteristics”.	(13)	BTL4	Analyzing
4	Model the step wise planning of activities for a project with neat diagram.	(13)	BTL3	Applying
5	Select few problems associated with software projects and explain in detail.	(13)	BTL4	Analyzing
6	(i) Determine the different ways of categorizing software project in detail.	(6)	BTL5	Evaluating
	(ii) What is project planning? Explain the stepwise project planning activities with necessary illustration.	(7)		
7	Explain the following: (i) Setting objective of the project.	(6)	BTL4	Analyzing
	(ii) Principles of project management process.	(7)		
8	(i) Examine in detail about project control cycle.	(6)	BTL4	Analyzing
	(ii) Compare traditional project management practices with modern project management practices.	(7)		
9	(i) Simplify the need for project portfolio management.	(7)	BTL4	Analyzing
	(ii) Inspect the significance of strategic programme management.	(6)		
10	Compose the ABC college payroll system for the following: (i) Develop the project scope and objective.	(4)	BTL6	Creating
	(ii) Decide the project infrastructure.	(4)		
	(iii) List the project products and activities involved in management.	(5)		
11	Contrast the cash flow forecasting with different cost benefit evaluation techniques.	(13)	BTL4	Analyzing
12	Evaluate the cost-benefit evaluation techniques and its methods with examples.	(13)	BTL5	Evaluating
13	Apply the cash flows techniques in project development with suitable example.	(13)	BTL3	Applying
14	Identify the data to be collected in ensuring the execution of project is going according to plan.	(13)	BTL3	Applying
15	Examine the various aspects of risk evaluation in detail.	(13)	BTL4	Analyzing
16	Explain the various software development life cycle activities as outlined by ISO12207 with a neat diagram.	(13)	BTL4	Analyzing
17	(i) List the stepwise planning activities of project plan.	(4)	BTL4	Analyzing
	(ii) Explain the stepwise project plan with an example.	(9)		
PART-C				
Q. No.	Questions		BTL	Competence
1	Assess the important characteristics of software development projects which make these harder to manage compared to other types of projects. Say for example, a building construction project.	(15)	BTL5	Evaluating

2	Evaluate the main types of personnel employed in an information systems department. For each stage of a typical IS development project, list the types of personnel who are likely to be involved.	(15)	BTL5	Evaluating
3	Suppose Bright Mouth College has the option of either buying payroll software off-the-shelf at \$50000 or employing a programmer for six months at a salary of \$5000 to develop the software. Perform cost- benefit analysis for the two options. You can make suitable assumptions regarding any factor that has not been mentioned in this problem statement.	(15)	BTL6	Creating
4	Determine how discounted cash flow techniques provide better criteria for project selection than net profit or return on investment.	(15)	BTL5	Evaluating
5	A public library is considering the implementation of a computer based system to help administer in book loans at libraries. (i) Identify the stakeholders. (ii) List the objectives the project. (iii) Examine and measure the success and failure of the project.	(5) (5) (5)	BTL6	Creating

UNIT II - PROJECT LIFE CYCLE AND EFFORT ESTIMATION

Software process and Process Models – Choice of Process models - Rapid Application development – Agile methods – Dynamic System Development Method – Extreme Programming– Managing interactive processes – Basics of Software estimation – Effort and Cost estimation techniques – COSMIC Full function points - COCOMO II – a Parametric Productivity Model.

PART A

Q. No.	Questions	BTL	Competence
1	What is the function of spiral model?	BTL1	Remembering
2	Compare object driven project with product driven project.	BTL2	Understanding
3	Classify the types of management in strategic assessment.	BTL2	Understanding
4	Infer the core values of Extreme programming.	BTL2	Understanding
5	List the various agile approaches and tell the advantages of agile unified process.	BTL1	Remembering
6	Outline the short comings of waterfall model.	BTL2	Understanding
7	Show the main life cycle phase of Altern process model.	BTL2	Understanding
8	Demonstrate the pros and cons of using pair programming over programmers working alone.	BTL2	Understanding
9	Find the aims of RAD model.	BTL1	Remembering
10	Recall the advantages and disadvantages of Incremental delivery.	BTL1	Remembering
11	State the impact of MoSCoW Classification.	BTL1	Remembering
12	Illustrate the problems with over and under estimate.	BTL2	Understanding
13	How will you measure the effort of the project in parametric model?	BTL1	Remembering
14	Name the major components of function point analysis.	BTL1	Remembering
15	Show the ways of moving data groups in COSMIC full function point model. Name the any two levels of COSMIC Model.	BTL2	Understanding
16	Interpret the factors that are sensitive to system size in COCOMO II model.	BTL2	Understanding
17	Define the function point Mark II model of transaction.	BTL1	Remembering
18	Tell the difficulties of project estimation.	BTL1	Remembering
19	Classify the effort estimation methods.	BTL2	Understanding
20	Outline the different modes of COCOMO II model.	BTL2	Understanding
21	What is the major shortcoming of the SLOC measure?	BTL1	Remembering

22	State the significance of a “project risk matrix” with an example.	BTL1	Remembering
23	Name some units for measuring the size of the software.	BTL1	Remembering
24	List the categories of benefits.	BTL1	Remembering

PART B

Q. No.	Questions	BTL	Competence																									
1	(i) Explain the water fall model in detail with neat diagram. (ii) Examine the details of spiral software development life cycle model with necessary illustration.	(6) (7) BTL4	Analyzing																									
2	Explain the following in detail: (i) Software prototyping (ii) Different ways of categorizing prototype.	(6) (7) BTL4	Analyzing																									
3	(i) Evaluate the significance of the incremental delivery with neat diagram. (ii) Assess the advantages and disadvantages of incremental delivery.	(7) (6) BTL5	Evaluating																									
4	(i) Explain the dynamic system development method in detail. (ii) Analyze the details about SCRUM.	(9) (4) BTL4	Analyzing																									
5	(i) Experiment with the Rapid Application Development model. (ii) Identify the features of Agile method.	(8) (5) BTL3	Applying																									
6	Examine the features of Extreme programming in detail and list its advantages and disadvantages.	(13) BTL4	Analyzing																									
7	(i) Explain the management of iterative process in detail. (ii) Explain why estimates are carried out at various stages of a software project.	(8) (5) BTL4	Analyzing																									
8	(i) Identify the basis for software estimation in detail. (ii) Apply the expert judgment and estimation by analogy in detail.	(8) (5) BTL3	Applying																									
9	(i) Experiment with the extended function point analysis in detail with an example. (ii) Develop the staffing pattern.	(7) (6) BTL3	Applying																									
10	Demonstrate the following: (i) Function point mark II method (ii) COSMIC full function point method	(8) (5) BTL3	Applying																									
11	Explain the COCOMO II parametric productive model in detail along with the appropriate steps in effort estimation technique.	(13) BTL4	Analyzing																									
12	Interview the top down and bottom approach of the estimation in detail.	(13) BTL3	Applying																									
13	The following details are held about previously developed software modules. <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>Module</th> <th>Inputs</th> <th>Entity Types Accessed</th> <th>Outputs</th> <th>Days</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>1</td> <td>2</td> <td>10</td> <td>2.60</td> </tr> <tr> <td>B</td> <td>10</td> <td>2</td> <td>1</td> <td>3.90</td> </tr> <tr> <td>C</td> <td>5</td> <td>1</td> <td>1</td> <td>1.83</td> </tr> <tr> <td>D</td> <td>2</td> <td>3</td> <td>11</td> <td>3.50</td> </tr> </tbody> </table>	Module	Inputs	Entity Types Accessed	Outputs	Days	A	1	2	10	2.60	B	10	2	1	3.90	C	5	1	1	1.83	D	2	3	11	3.50	BTL5	Evaluating
Module	Inputs	Entity Types Accessed	Outputs	Days																								
A	1	2	10	2.60																								
B	10	2	1	3.90																								
C	5	1	1	1.83																								
D	2	3	11	3.50																								

	E	1	3	20	4.30			
	i) Determine the Simons Mark II FPs for each module. ii) Using the results, decide the effort needed for the new module.					(8) (5)		
14	Solve using the project data given below.							
	Project	inputs	outputs	entity accesses	system users	Program - ming language	developer days	
	1	210	420	40	10	x	30	
	2	469	1406	125	20	x	85	
	3	513	1283	76	18	y	108	
	4	660	2310	88	200	y	161	
	5	183	367	35	10	z	22	
	6	244	975	65	25	z	42	
	7	1600	3200	237	25	y	308	
	8	582	874	111	5	z	62	
	X	180	350	40	20	y		
	Y	484	1190	69	35	y		
	Note X and Y are new projects for which estimates of effort are needed.							
	i) What items are size drivers?					(3)		
	ii) What items are productivity drivers?					(3)		
	iii) What are the productivity rates for programming languages x, y and z?					(3)		
	iv) What would be the estimated effort, for projects X and Y using a Mark II function point count?					(4)		
15	Apply the estimates done and explain the problems with over and under estimates with your own example.					(13)	BTL3	Applying
16	Explain in detail about the managing interactive processes.					(13)	BTL4	Analyzing
17	Analyze how cost-benefit evaluation techniques can be used to choose the best among competing project proposals.					(13)	BTL4	Analyzing
PART C								
Q. No.	Questions						BTL	Competence
1	Conclude the major shortcomings of the waterfall model? Explain how those shortcomings been overcome by the agile model?					(15)	BTL5	Evaluating
2	Compare the implementation of SCRUM methodology in a Fintech startup developing a new online payment platform versus a traditional financial institution upgrading its legacy banking system. Evaluate the effectiveness of SCRUM in each context and discuss challenges encountered.					(15)	BTL5	Evaluating
3	Suppose you are the manager of a software project. Explain why it would not be proper to calculate the number of developers required for the project as a simple division of the effort estimate (in person-months) by the nominal duration estimate (in months).					(15)	BTL6	Creating
4	Assess the pros and cons of using pair programming over programmers working alone. Based on your analysis, point out if there are any situations where the pair programming technique may not be suitable.					(15)	BTL5	Evaluating

5	Discuss how different project parameters (such as team size, complexity, and technology stack) influence effort and cost estimation accuracy. Appraise the use of COCOMO II-A Parametric Productivity Model in a software development project for a global e-commerce platform.	(15)	BTL6	Creating
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UNIT III ACTIVITY PLANNING AND RISK MANAGEMENT

Objectives of Activity planning – Project schedules – Activities – Sequencing and scheduling – Network Planning models – Formulating Network Model – Forward Pass & Backward Pass techniques – Critical path (CRM) method – Risk identification – Assessment – Risk Planning – Risk Management – PERT technique – Monte Carlo simulation – Resource Allocation – Creation of critical paths – Cost schedules.

PART A

Q. No.	Questions	BTL	Competence
1	List the objectives of activity planning.	BTL1	Remembering
2	Compare work breakdown structure with product break down structure.	BTL2	Understanding
3	Differentiate Activity-On-Arrow (AOA) from Activity-On-Node (AON).	BTL2	Understanding
4	Show the various approaches would you use to identify activities.	BTL2	Understanding
5	Outline the strategies for risk reduction that can be adopted for the following software project risk: Personnel (staffing) shortfalls.	BTL2	Understanding
6	How would you use hybrid approach of project scheduling?	BTL1	Remembering
7	What are the different ways of prioritizing the activities in resource allocations?	BTL1	Remembering
8	Name the changes would you make to shorten the project duration.	BTL1	Remembering
9	How would you show a “Dangle” in an activity Network?	BTL1	Remembering
10	Define Hammock activities.	BTL1	Remembering
11	Contrast between forward pass and backward pass.	BTL2	Understanding
12	Define activity float. Appraise the need for modeling precedence networks.	BTL1	Remembering
13	Differentiate ‘Free Floats’ from ‘Interfering Floats’.	BTL2	Understanding
14	Compare PERT with CPM.	BTL2	Understanding
15	Spell out the categories of cost.	BTL1	Remembering
16	Classify the types of risk.	BTL2	Understanding
17	Find the factors involved in risk planning.	BTL1	Remembering
18	What do you understand by risk transfer? Give an example.	BTL1	Remembering
19	Define hazard.	BTL1	Remembering
20	Classify the time estimates in PERT.	BTL1	Remembering
21	Demonstrate the Monte Carlo simulation method.	BTL2	Understanding
22	Illustrate the different types of schedules in resource allocation.	BTL2	Understanding
23	List the categories of resources.	BTL1	Remembering
24	State the factors that needs to be taken into account while allocating individuals to tasks.	BTL1	Remembering

PART B

Q. No.	Questions	BTL	Competence
1	(i) List the various steps involved in activity planning with its objectives. (ii) Examine the sequencing and scheduling activities.	(8) (5)	BTL4 Analyzing
2	Compare the different approaches of identifying the project activities in detail with neat diagram.	(13)	BTL4 Analyzing

3	Experiment with the various network planning model and calculations used in the model. Develop the rules for constructing precedence network.	(13)	BTL3	Applying
4	(i) Analyze the forward pass activity in detail. (ii) Explain the backward pass activity with neat diagram.	(8) (5)	BTL4	Analyzing
5	(i) Examine how the critical path is identified in details with a neat diagram. (ii) Explain in detail , on activity float.	(7) (6)	BTL4	Analyzing
6	Construct an Activity-On-Arrow network and explain the rules & conventions for activity on arrow network.	(13)	BTL3	Applying
7	Inspect the different CPM forward and backward pass network in detail with neat diagram.	(13)	BTL4	Analyzing
8	Analyze the term Risk. Discover the issues related to managing the risk with necessary examples.	(13)	BTL4	Analyzing
9	(i) Analyze the use of checklist and brain storming in identification of risk. (ii) Classify the categories of risk.	(8) (5)	BTL4	Analyzing
10	(i) Inspect on Monte Carlo simulation with an example. (ii) Distinguish between PERT and CPM. Explain with an example the use of network techniques PERT and CPM in software project management.	(6) (7)	BTL4	Analyzing
11	(i) Build PERT network for real time example and explain. (ii) Identify the risk identification process and explain the mitigation steps involved in the project management.	(6) (7)	BTL3	Applying
12	(i) Model the cost schedule in detail. (ii) Identify the factors to be considered in allocation of tasks.	(8) (5)	BTL3	Applying
13	(i) Compare the different categories of project resources in detail. (ii) Assess the various scheduling resources with necessary illustration.	(8) (5)	BTL5	Evaluating
14	(i) Build an activity network using activity on node for office automation. (ii) Construct a network diagram representing the following logic. As the project starts, activities A and B can be performed concurrently. When A is finished, activities C and D can start. When B is finished, activities E and F can start. When activities D and E are finished, activity G can start. The project is complete when activities C, F and G are finished.	(5) (8)	BTL6	Creating
15	Explain how you will identify the major risks and explain the strategies for minimizing each of those risks.	(13)	BTL5	Evaluating

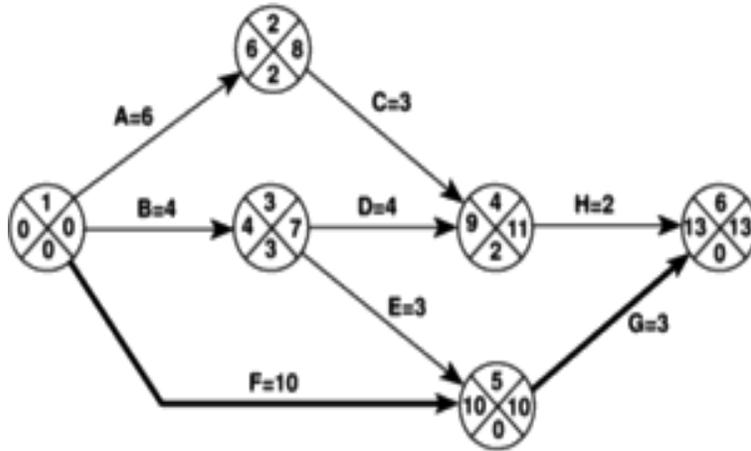
16	(i) Decide the objectives of designing a proper project schedule. (ii) Explain risk analysis its significance in project management.	(7) (6)	BTL5	Evaluating
17	Identify the steps involved in the process of resource allocation.	(13)	BTL3	Applying

PART C

Q. No.	Questions	BTL	Competence
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1	Develop the objectives and sub-objectives of the Bright Mouth College payroll project. What measures of effectiveness could be used to check the success in achieving the objectives of the project?	(15)	BTL6	Creating
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2	Referring to figure that the duration for activity F is shortened to 8 weeks. Estimate the end date for the project. What would the end date for the project if activity F were shortened to 7 weeks? Why?	(15)	BTL5	Evaluating
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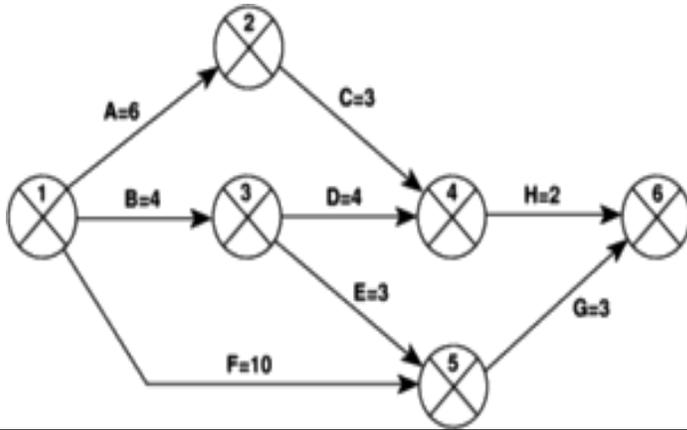


3	Construct an activity network using CPM conventions for the project specified in below table. When you have completed it, evaluate and compare your result with that shown in figure.	(15)	BTL6	Creating
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Activity	Duration (weeks)	Precedents
A Hardware selection	6	
B Software design	4	
C Install hardware	3	A
D Code & test software	4	B
E File take-on	3	B
F Write user manuals	10	
G User training	3	E, F
H Install & test system	2	C, D

Table1: An example project specification with estimated activity duration and precedence requirements.

Figure: Illustrates the network for the project specified in Table1



4	<p>Consider a software project with five tasks T1-T5. Duration of the five tasks in weeks is 3,2,3,5 and 2 respectively. T2 and T4 can start when T1 is complete. T3 can start when T2 is complete. T5 can start when T3 and T4 are complete. Design the CPM network representation of the project. When is the latest start date of the task T3? What is the float time of the task T4? Which tasks are on the critical path?</p>	(15)	BTL6	Creating
5	<p>On a large project it is often the responsibility of a team leader to allocate tasks to individuals. Why might it be unsatisfactory to leave such allocations entirely to the direction of the team leader? Justify your answer.</p>	(15)	BTL5	Evaluating

UNIT IV PROJECT MANAGEMENT AND CONTROL

Framework for Management and control – Collection of data – Visualizing progress – Cost monitoring – Earned Value Analysis – Prioritizing Monitoring – Project tracking – Change control – Software Configuration Management – Managing contracts – Contract Management.

PART A

Q. No.	Questions	BTL	Competence
1	Infer the advantages and disadvantages of the EVA approach.	BTL2	Understanding
2	Illustrate the steps in project control.	BTL2	Understanding
3	Classify the deciding levels of monitoring.	BTL2	Understanding
4	List the different ways of collecting data.	BTL1	Remembering
5	Outline the categories of reporting.	BTL2	Understanding
6	What is the use of check points and monitoring?	BTL1	Remembering
7	Name the techniques of visualizing progress.	BTL1	Remembering
8	Tell the advantages of fixed priced contracts.	BTL1	Remembering
9	Contrast between ball chart and slip chart.	BTL2	Understanding
10	Compare budgeted cost of work scheduled and budgeted cost of work performed.	BTL2	Understanding
11	Define critical path and outsource.	BTL1	Remembering
12	Demonstrate the justifications for project termination.	BTL2	Understanding
13	How the details needed to carry out EVA to be collected?	BTL1	Remembering
14	How would you rate the levels to monitor the project?	BTL1	Remembering
15	Illustrate the need for monitoring the cost.	BTL2	Understanding
16	Classify the different types of contracts.	BTL2	Understanding
17	Define the supply processes in managing contract.	BTL1	Remembering

18	State open source configuration management tools.	BTL1	Remembering
19	Interpret the outcome of contract management.	BTL2	Understanding
20	How would you integrate the popular visual tools in monitoring and tracking the project progress?	BTL1	Remembering
21	Compare schedule variance, time variance and cost variance.	BTL2	Understanding
22	Define change control.	BTL1	Remembering
23	Outline the stages in awarding a contract.	BTL2	Understanding
24	Find the features of Open Tendering Process.	BTL1	Remembering

PART B

Q. No.	Questions		BTL	Competence
1	(i) Discover the significance of creating the frame work for monitoring the project management and control. (ii) Scope and deliverables of software projects are changed frequently. This has severe implications on the projects. Examine how a project manager can minimize their impact on the projects.	(5) (8)	BTL4	Analyzing
2	Simplify the following in detail: (i) Collecting the data (ii) Project termination review	(5) (8)	BTL4	Analyzing
3	(i) Infer the use of Gantt and timeline charts in visualizing the project progress with suitable diagrams. (ii) Analyze on cost monitoring.	(7) (6)	BTL4	Analyzing
4	Compare the various ways in visualizing the progress of the project with neat diagram.	(13)	BTL4	Analyzing
5	(i) Apply the earned value analysis method in your choice of problem and explain. (ii) Identify the various steps involved in change control procedure.	(8) (5)	BTL3	Applying
6	(i) Develop the procedure to get back the project to target. (ii) Identify the process of prioritizing monitoring and explain with appropriate examples.	(7) (6)	BTL3	Applying
7	(i) Deduct the purpose of software configuration management. (ii) Appraise about configuration management process in detail.	(8) (5)	BTL5	Evaluating
8	(i) Compare the various types of contracts with example. Appraise the activities involved in software configuration management. (ii) Determine the various stages in contract placement in detail.	(8) (5)	BTL5	Evaluating
9	(i) Identify the salient features of “Fixed price” and “Time and material” contracts model. (ii) Demonstrate in detail about contract management.	(8) (5)	BTL3	Applying
10	(i) Inspect the formal models for cost monitoring with its metrics (ii) Examine the levels of monitoring with example.	(8) (5)	BTL4	Analyzing
11	(i) Identify the typical terms in contract and explain them in detail. (ii) Solve how the earned value chart depicts scheduled progress, actual cost and actual progress (earned value) to allow the determination of spending, schedule and time variances with example.	(5) (8)	BTL3	Applying

12	(i) Explain the managing contract under ISO12207 approach. (ii) Rate the change control procedure with necessary details.	(5) (8)	BTL5	Evaluating
13	(i) Analyze a baseline in the contest of software configuration management. How do the base lines get updated to form new baselines? (ii) How the following can be prevented while using a configuration management tool? Examine it. a. Two team members overwriting each other's work b. Accidental deletion of work product. c. Unauthorized modifications to a work product	(6) (7)	BTL4	Analyzing
14	Analyze the following in detail: a. Partial completion reporting b. Reb/Amber/Green(RAG) Reporting	(8) (5)	BTL4	Analyzing
15	(i) Scope and deliverables of software projects are changed frequently. This has severe implications on the projects. Minimize the impact of the project analyzing the same as a project manager. (ii) Determine the activities involved in software configuration management.	(7) (6)	BTL6	Creating
16	(i) Organize the various steps involved in change control procedure. (ii) Identify the roles and responsibility of a configuration librarian.	(9) (4)	BTL3	Applying
17	Identify and Solve the problems that you are likely to face while developing several versions of the same software product according to a client's request without using any configuration management tools.	(13)	BTL3	Applying

PART C

Q. No.	Questions		BTL	Competence
1	Evaluate the role of software configuration management in a multinational automotive company's development of autonomous driving software. Determine the challenges related to version control, integration management, and ensuring compliance with safety standards.	(15)	BTL5	Evaluating
2	Suppose you have access to project planning software, investigate the extent to which it offers support for earned value analysis. If it does not directly, discuss the ways in which it would help you to generate a baseline budget (PV) and track the earned value (EV).	(15)	BTL6	Creating
3	Justify the following statement: "The project termination review results can change the development process and the project management process"	(15)	BTL5	Evaluating
4	Suppose a project is budgeted to cost \$150000. The project is to be completed in 18 months. After two months, the project is 10% complete at an expense of \$25000. It was planned that after two months 15% of the project work should have been completed. Create and compare the cost performance index and the schedule performance index. Interpret these values to assess the progress of the project.	(15)	BTL6	Creating

5	Formulate an Earned Value Analysis for a government IT project aimed at digitizing public records. Compare planned versus actual costs and schedule performance indicators. Discuss how EVA metrics can provide early warning signs of project deviations and facilitate corrective actions.	(15)	BTL6	Creating
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UNIT V STAFFING IN SOFTWARE PROJECTS

Managing people – Organizational behavior – Best methods of staff selection – Motivation – The Oldham – Hackman job characteristic model – Stress – Health and Safety – Ethical and Professional concerns – Working in teams – Decision making – Organizational structures – Dispersed and Virtual teams – Communications genres – Communication plans – Leadership.

PART A

Q. No.	Questions	BTL	Competence
1	Outline the objectives of managing people and organizing teams.	BTL2	Understanding
2	Interpret the importance causes of “stress” encountered in project.	BTL2	Understanding
3	List the different motivation theories.	BTL1	Remembering
4	Find the importance of organizational behavior.	BTL1	Remembering
5	Define Taylor’s model.	BTL1	Remembering
6	Name the different types of leadership style.	BTL1	Remembering
7	Mention the stages of team formation model.	BTL1	Remembering
8	State the methods, would you use to improve motivation.	BTL1	Remembering
9	Interpret the term job enlargement and job enrichment by your own words.	BTL2	Understanding
10	Classify the different categories of decisions.	BTL2	Understanding
11	What is Herzberg’s two factor theory and software reliability.	BTL1	Remembering
12	Illustrate some mental obstacles to good decision making.	BTL2	Understanding
13	Outline the steps involved in selecting the right person for the job.	BTL2	Understanding
14	What do you understand by virtual team?	BTL1	Remembering
15	Tell the basic stages of team development.	BTL1	Remembering
16	Paraphrase the following: Maslow’s hierarchy of need.	BTL2	Understanding
17	Compare personal stress with organizational stress.	BTL2	Understanding
18	Outline the measures to enhance the job design in Oldham-Hackman model characteristic model.	BTL2	Understanding
19	Identify the advantages of the chief programmer team.	BTL2	Understanding
20	How would you apply your understanding in “Egoless Programming”?	BTL1	Remembering
21	Classify the modes of communication.	BTL2	Understanding
22	List the problems that are faced by matrix team organization.	BTL1	Remembering
23	State the advantages of functional team formats.	BTL1	Remembering
24	Infer the general approach which is followed for recruitment process.	BTL2	Understanding

PART B

Q. No.	Questions	BTL	Competence
1	Illustrate the organizational behavior with an example.	(13) BTL3	Applying
2	(i) Identify the factors to be considered in the Oldham-Hackman job characteristic model.	(8) BTL3	Applying
	(ii) Interpret the Vroom’s expectancy theory.	(5)	
3	Demonstrate , how would you select a new staff into a project along with the recruitment process?	(13) BTL3	Applying

4	(i) Examine the details for Maslow's Hierarchy of needs with an example. (ii) Analyze the details on Taylorist model.	(8) (5)	BTL4	Analyzing
5	Explain the following in detail: (i) Stress (ii) Health and safety	(6) (7)	BTL5	Evaluating
6	(i) Compose some ethical and professional concern. (ii) Develop the project and functional organization structure and list out the advantages functional team format.	(5) (8)	BTL6	Creating
7	Inspect the various models of motivation in detail.	(13)	BTL4	Analyzing
8	(i) Select the metrics and explain the issues involved in selecting the right person for the job. (ii) Identify the importance of working together as a team and the various aspects of team development.	(5) (8)	BTL3	Applying
9	Illustrate the term "Decision Making" in the process of managing people and organizing teams. With an example explain the strength of a team.	(13)	BTL3	Applying
10	Compare different types of team structures used in the project management.	(13)	BTL4	Analyzing
11	(i) Examine the organization and team structure in detail. (ii) Classify team and compare the types of team structures.	(5) (8)	BTL4	Analyzing
12	(i) Describe in detail about dispersed and virtual team. (ii) Summarize details on communication genres.	(5) (8)	BTL4	Analyzing
13	(i) Assess the factors and characteristics that are involved in making a team. (ii) Recommend the different ways to improve the group performance.	(7) (6)	BTL5	Evaluating
14	(i) Build the leadership models with the functions of a leader and explain with an example. (ii) Model a communication plan and explain in detail.	(7) (6)	BTL3	Applying
15	Discover the ways in which a software development department can be structured and illustrate with suitable diagram.	(13)	BTL4	Analyzing
16	Simplify the term leadership and explain different kinds of leadership power. Explain in detail about leadership style.	(7) (6)	BTL4	Analyzing
17	Categorize each participant according to the Belbin classification in your final year project. Were there any duplications or gaps in any of the roles? Did this seem to have any impact on your progress? Propose your solution.	(13)	BTL4	Analyzing

PART C

Q. No.	Questions		BTL	Competence
1	Suppose an organization has detected low job satisfaction in the following departments: i. The system testing group; ii. The computer applications help desk; iii. Computer batch input; How could these jobs be redesigned to give more job satisfaction?	(15)	BTL6	Creating
2	Combine examples from the tech industry, examine how different organizational structures (e.g., hierarchical versus flat) impact team dynamics and decision-making processes in software development	(15)	BTL6	Creating

	teams. Discuss implications for project management and productivity.			
3	Evaluate why software development houses prefer to use project organization over functional organization. Explain the advantages of a functional organization over a project organization.	(15)	BTL5	Evaluating
4	Being a project manager, decide the characteristics that you would look for in a software developer while trying to select personnel for your team.	(15)	BTL5	Evaluating
5	Does staff selection relate with quality of product? Justify with appropriate reason.	(15)	BTL5	Evaluating

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