

Question Bank for APR 2025 Examinations

Subject Code	19CS504	Subject Name	SOFTWARE PROJECT MANAGEMENT	Common To
Faculty Name	Dr. A. CHAMUNDESWARI	Department		

(PART A – 2 Marks)

UNIT - I

Q. No	Questions	CO	Knowledge Level (Blooms)	Difficulty Level (1-5)
*QA101	Define SPM.	CO1	K1	2
QA102	How to set an objective for a project?	CO1	K3	3
QA103	Write the phases of project planning.	CO1	K1	2
*QA104	Highlight the role of time in a project.	CO1	K3	3

QA105	List the importance of the project economics.	CO1	K2	2
-------	---	-----	----	---

UNIT - II

Q. No	Questions	CO	Knowledge Level (Blooms)	Difficulty Level (1-5)
*QA201	What is software scope creep?	CO2	K2	2
*QA202	Prepare a chart and show the effort in person months, if the adjusted function point is 34 FP.	CO2	K3	3
*QA203	Articulate the advantages of applying Analogy Effort Estimation Technique.	CO2	K3	3
QA204	Write the modes of COCOMO productivity model	CO2	K1	2
*QA205	Construct a table with the various activities to allocate the resources.	CO2	K3	3

UNIT - III

Q. No	Questions	CO	Knowledge Level (Blooms)	Difficulty Level (1-5)
QA301	Define sequencing.	CO3	K2	2
QA302	What is meant by forward pass? When it is used in a project?	CO3	K3	3
*QA303	Tabulate the importance of early start and early finish schedule in a project.	CO3	K3	3
*QA304	List the advantages of PERT.	CO3	K1	2
*QA305	Summarize the Work Breakdown Structure for a project	CO3	K3	3

UNIT - IV

Q. No	Questions	CO	Knowledge Level (Blooms)	Difficulty Level (1-5)
QA401	Outline the risk management.	CO4	K2	2
QA402	Outline the need for risk evaluation and control.	CO4	K2	2
QA403	List the categories of risks.	CO4	K1	2
QA404	Define Brainstorming.	CO4	K1	2
QA405	List the disadvantages of group decision making.	CO4	K2	2

UNIT - V

Q. No	Questions	CO	Knowledge Level (Blooms)	Difficulty Level (1-5)
QA501	Outline the team structure.	CO6	K2	2
QA502	Draw the project control cycle model.	CO5	K2	2
*QA503	What are the levels of monitoring?	CO5	K2	2
QA504	Define virtual team.	CO6	K2	2
QA505	What is a contract? List the types of it.	CO5	K2	2

(PART B – 13 Marks - Either Or Type)

UNIT - I

Q. No	Questions	CO	Knowledge Level (Blooms)	Difficulty Level (1-5)
*QB101 (a)	List and explain the activities of software project management. Illustrate with examples.	CO1	K3	3
	(Or)			
*QB101 (b)	“The online form generates errors and brings more frustration than satisfaction to customers”. Identify the related project activities involved for the above statement. Explain.	CO1	K3	3
QB102 (a)	Explain in detail about the project life cycle.	CO1	K2	2
	(Or)			
QB102 (b)	List and explain the management aspects of software project management.	CO1	K2	2
*QB103 (a)	“AI prevent employees from missing project deadlines”. Construct your valuable statements related to SPM. Justify or revert.	CO1	K3	3
	(Or)			
*QB103 (b)	Explain in detail about the project life cycle for a resource allocation software.	CO1	K3	3

UNIT - II

Q. No	Questions	CO	Knowledge Level (Blooms)	Difficulty Level (1-5)
*QB201 (a)	<p>Case study: A project, commissioned by The Customer Company, represented by The Manager's, is being undertaken to create a dedicated website for the Customer's online store.</p> <p>Interpret your objectives and deliverables for the above case study.</p>	CO2	K3	3
	(Or)			
*QB201 (b)	Examine the factors you will consider to predict the function point estimation of an online movie ticket software and find the total effort required to complete the project.	CO2	K3	3
*QB202 (a)	Chart the work breakdown structure for online ticket reservation and apply the FP estimation and estimate the total adjusted function point.	CO2	K3	3
	(Or)			
*QB202 (b)	Apply the decision tree techniques to evaluate the risk in developing the IoT embedded health care product, namely to diagnose the ECG.	CO2	K3	3
*QB203 (a)	Explain in detail about COCOMO productivity model	CO2	K2	2
	(Or)			
*QB203 (b)	Describe the top-down and bottom-up software effort estimation techniques.	CO2	K2	2

UNIT - III

Q. No	Questions	CO	Knowledge Level (Blooms)	Difficulty Level (1-5)																											
*QB301 (a)	<p>Explain the importance of forward pass and Backward pass in calculating the earliest start and finish dates. Compute the total time to complete the project by applying forward pass and backward pass with the table given below.</p> <table border="1" data-bbox="517 470 1214 894"> <thead> <tr> <th data-bbox="517 470 777 507">Activity</th><th data-bbox="777 470 1015 507">Duration(weeks)</th><th data-bbox="1015 470 1214 507">Predecessor</th></tr> </thead> <tbody> <tr> <td data-bbox="517 507 777 567">A Hardware selection</td><td data-bbox="777 507 1015 567">6</td><td data-bbox="1015 507 1214 567"></td></tr> <tr> <td data-bbox="517 567 777 628">B System configuration</td><td data-bbox="777 567 1015 628">4</td><td data-bbox="1015 567 1214 628"></td></tr> <tr> <td data-bbox="517 628 777 672">C Install hardware</td><td data-bbox="777 628 1015 672">3</td><td data-bbox="1015 628 1214 672">A</td></tr> <tr> <td data-bbox="517 672 777 716">D data migration</td><td data-bbox="777 672 1015 716">4</td><td data-bbox="1015 672 1214 716">B</td></tr> <tr> <td data-bbox="517 716 777 776">E Draft office procedures</td><td data-bbox="777 716 1015 776">3</td><td data-bbox="1015 716 1214 776">B</td></tr> <tr> <td data-bbox="517 776 777 820">F Recruit staff</td><td data-bbox="777 776 1015 820">10</td><td data-bbox="1015 776 1214 820"></td></tr> <tr> <td data-bbox="517 820 777 848">G User training</td><td data-bbox="777 820 1015 848">3</td><td data-bbox="1015 820 1214 848">E,F</td></tr> <tr> <td data-bbox="517 848 777 894">H Install and test system</td><td data-bbox="777 848 1015 894">2</td><td data-bbox="1015 848 1214 894">C,D</td></tr> </tbody> </table>	Activity	Duration(weeks)	Predecessor	A Hardware selection	6		B System configuration	4		C Install hardware	3	A	D data migration	4	B	E Draft office procedures	3	B	F Recruit staff	10		G User training	3	E,F	H Install and test system	2	C,D	CO3	K3	3
Activity	Duration(weeks)	Predecessor																													
A Hardware selection	6																														
B System configuration	4																														
C Install hardware	3	A																													
D data migration	4	B																													
E Draft office procedures	3	B																													
F Recruit staff	10																														
G User training	3	E,F																													
H Install and test system	2	C,D																													
*QB301 (b)	<p>(Or)</p> <p>Explain the importance of critical path in a project scheduling. Draw a network diagram and find a critical path for the following activity.</p> <table border="1" data-bbox="623 1095 1108 1503"> <thead> <tr> <th data-bbox="623 1095 882 1132">Activity</th><th data-bbox="882 1095 1108 1132">Duration(weeks)</th></tr> </thead> <tbody> <tr> <td data-bbox="623 1132 882 1160">1-2</td><td data-bbox="882 1132 1108 1160">5</td></tr> <tr> <td data-bbox="623 1160 882 1188">1-3</td><td data-bbox="882 1160 1108 1188">6</td></tr> <tr> <td data-bbox="623 1188 882 1215">1-4</td><td data-bbox="882 1188 1108 1215">3</td></tr> <tr> <td data-bbox="623 1215 882 1243">2-5</td><td data-bbox="882 1215 1108 1243">5</td></tr> <tr> <td data-bbox="623 1243 882 1271">3-6</td><td data-bbox="882 1243 1108 1271">7</td></tr> <tr> <td data-bbox="623 1271 882 1299">3-7</td><td data-bbox="882 1271 1108 1299">10</td></tr> <tr> <td data-bbox="623 1299 882 1326">4-7</td><td data-bbox="882 1299 1108 1326">4</td></tr> <tr> <td data-bbox="623 1326 882 1354">5-8</td><td data-bbox="882 1326 1108 1354">2</td></tr> <tr> <td data-bbox="623 1354 882 1382">6-8</td><td data-bbox="882 1354 1108 1382">5</td></tr> <tr> <td data-bbox="623 1382 882 1410">7-9</td><td data-bbox="882 1382 1108 1410">6</td></tr> <tr> <td data-bbox="623 1410 882 1437">8-9</td><td data-bbox="882 1410 1108 1437">4</td></tr> </tbody> </table>	Activity	Duration(weeks)	1-2	5	1-3	6	1-4	3	2-5	5	3-6	7	3-7	10	4-7	4	5-8	2	6-8	5	7-9	6	8-9	4	CO3	K3	3			
Activity	Duration(weeks)																														
1-2	5																														
1-3	6																														
1-4	3																														
2-5	5																														
3-6	7																														
3-7	10																														
4-7	4																														
5-8	2																														
6-8	5																														
7-9	6																														
8-9	4																														

*QB302 (a)	Compare PERT and CPM with suitable activity charts and diagrams.	CO3	K2	2																																								
	(Or)																																											
*QB302 (b)	Discuss the PERT procedure and how does it help the project manager to evaluate the schedule.	CO3	K2	2																																								
*QB303 (a)	<p>Draw the network diagram and find the critical path for the following activities.</p> <table border="1"> <thead> <tr> <th>Task ID</th><th>Task Predecessors</th><th>Task Duration</th></tr> </thead> <tbody> <tr> <td>A</td><td>-</td><td>0</td></tr> <tr> <td>B</td><td>A</td><td>10</td></tr> <tr> <td>C</td><td>A</td><td>20</td></tr> <tr> <td>D</td><td>B,C</td><td>30</td></tr> <tr> <td>E</td><td>B,C</td><td>20</td></tr> <tr> <td>F</td><td>E</td><td>40</td></tr> <tr> <td>G</td><td>D,F</td><td>20</td></tr> <tr> <td>H</td><td>G</td><td>0</td></tr> </tbody> </table>	Task ID	Task Predecessors	Task Duration	A	-	0	B	A	10	C	A	20	D	B,C	30	E	B,C	20	F	E	40	G	D,F	20	H	G	0	CO3	K3	3													
Task ID	Task Predecessors	Task Duration																																										
A	-	0																																										
B	A	10																																										
C	A	20																																										
D	B,C	30																																										
E	B,C	20																																										
F	E	40																																										
G	D,F	20																																										
H	G	0																																										
	(Or)																																											
*QB303 (b)	<p>Apply the PERT analysis method for the following activity and find the total schedule of the project.</p> <table border="1"> <thead> <tr> <th>Activities</th><th>Immediate Predecessor</th><th>Optimistic Time</th><th>Most Likely Time</th><th>Pessimistic Time</th></tr> </thead> <tbody> <tr> <td>A</td><td>-</td><td>6</td><td>7</td><td>8</td></tr> <tr> <td>B</td><td>-</td><td>3</td><td>5</td><td>7</td></tr> <tr> <td>C</td><td>-</td><td>4</td><td>7</td><td>10</td></tr> <tr> <td>D</td><td>A</td><td>2</td><td>3</td><td>4</td></tr> <tr> <td>E</td><td>B</td><td>3</td><td>4</td><td>11</td></tr> <tr> <td>F</td><td>C</td><td>4</td><td>8</td><td>12</td></tr> <tr> <td>G</td><td>C</td><td>3</td><td>3</td><td>9</td></tr> </tbody> </table>	Activities	Immediate Predecessor	Optimistic Time	Most Likely Time	Pessimistic Time	A	-	6	7	8	B	-	3	5	7	C	-	4	7	10	D	A	2	3	4	E	B	3	4	11	F	C	4	8	12	G	C	3	3	9	CO3	K3	3
Activities	Immediate Predecessor	Optimistic Time	Most Likely Time	Pessimistic Time																																								
A	-	6	7	8																																								
B	-	3	5	7																																								
C	-	4	7	10																																								
D	A	2	3	4																																								
E	B	3	4	11																																								
F	C	4	8	12																																								
G	C	3	3	9																																								

		H	E,F	6	6	12			
		I	D	5	8	11			
		J	H,G	3	3	9			

UNIT - IV

Q. No	Questions	CO	Knowledge Level (Blooms)	Difficulty Level (1-5)
QB401 (a)	Describe the decision making concepts	CO4	K2	2
	(Or)			
QB401 (b)	Explain various risk categories and sub-categories.	CO4	K2	2
QB402 (a)	Explain in detail about risk management.	CO4	K2	2
	(Or)			
QB402 (b)	Explain in detail about risk planning and controlling.	CO4	K2	2
*QB403 (a)	Illustrate the expected risk categories for the online bus pass ticket reservation system..	CO4	K3	3
	(Or)			

*QB403 (b)	Write and explain the procedure to manage the risks in attendance management system.	CO4	K3	3
------------	--	-----	----	---

UNIT - V

Q. No	Questions	CO	Knowledge Level (Blooms)	Difficulty Level (1-5)
QB501 (a)	What is Project Tracking? What is the role of project tracking in software project management?	CO5	K2	2
	(Or)			
QB501 (b)	Explain in detail about contract management.	CO5	K2	2
QB502 (a)	Describe in detail about Team Structure.	CO6	K2	2
	(Or)			
QB502 (b)	Discuss virtual teams and communication approaches among them.	CO6	K2	2
QB503 (a)	Explain in detail about team management and communications strategies in software projects.	CO6	K2	2
	(Or)			

*QB503 (b)	Discuss about change control procedure with suitable examples.	CO6	K2	2
------------	--	-----	----	---

(PART C – 15 Marks - Either Or Type)

UNIT - I

Q. No	Questions	CO	Knowledge Level (Blooms)	Difficulty Level (1-5)
*QC101 (a)	“Software projects are planned, implemented, monitored, and controlled”. Organize your solution, how the software organization renders service to the customer.	CO1	K4	4
	(Or)			
*QC101 (b)	Examine and brief the important activities of software project management for the project, “A bandwidth monitor can keep track of how much data a user downloads from or uploads to the internet”.	CO1	K4	4

UNIT - II

Q. No	Questions	CO	Knowledge Level (Blooms)	Difficulty Level (1-5)
*QC201 (a)	How to identify and evaluate the risks in developing a remote monitoring software, namely to monitor the heart rate.	CO2	K4	4
	(Or)			

*QC201 (b)	List the resources and prepare the WBS to develop the online payment system and allocate resources for all the tasks of the project.	CO2	K4	4
------------	--	-----	----	---

UNIT - III

Q. No	Questions	CO	Knowledge Level (Blooms)	Difficulty Level (1-5)
*QC301 (a)	Prepare an activity chart with activities for developing an image recognition system. Draw a network activity diagram. Implement the forward pass and backward pass for the activities.	CO3	K4	4
	(Or)			
*QC301 (b)	Write the procedure to draw the network activity chart and to find the critical path using PERT technique. List the activity to develop an attendance percentage of a class.	CO3	K4	4

UNIT - IV

Q. No	Questions	CO	Knowledge Level (Blooms)	Difficulty Level (1-5)
*QC401 (a)	Implement the decision-making procedure for online attendance system.	CO4	K4	4
*QC401 (b)	Describe in detail the risk planning procedure for online loan approval system.	CO4	K3	4

UNIT - V

Q. No	Questions	CO	Knowledge Level (Blooms)	Difficulty Level (1-5)
QC501 (a)	Choose the contract type for the Online purchase project. Justify your answer.	CO5	K4	4
	(Or)			
QC501 (b)	Write the usage of change control in the library management system project.	CO5	K4	4

Knowledge Level (Blooms Taxonomy)					
K1	Remembering (Knowledge)	K2	Understanding (Comprehension)	K3	Applying (Application of Knowledge)
K4	Analysing (Analysis)	K5	Evaluating (Evaluation)	K6	Creating (Synthesis)

General Instructions

- (i) For each Question, mention K1 or K2 etc. for Knowledge Level
- (ii) For each Question, mention CO1, CO2 etc. for Course Outcomes.

Verify the COs with the Syllabus (Avl in Website) before framing the Questions.

An Either or type Question should have same CO in both (a) and (b) parts.

(iii) For each Question, mention any number from 1 to 5 for Difficulty Level

(With 1 as Most Easy & 5 as Most Difficult)

(iv) Mark with * near the Q.No for those Questions which are framed newly and were not included

in the QBs of LAST FOUR SEMESTERs. Ensure minimum 2 new updations per unit in all Parts - PartA,

PartB & PartC. Hods are requested to maintain the QBs of each semester in a common drive and the same shall

be shared to all Faculty members of their Dept. If any subject is NEW (Introduced First time) or if all the

Questions are totally new , kindly mention that on the TOP of the Question Bank.

(v) Kindly Mention NOV 2022 on the Top without fail.

(vi) DO NOT Copy and Paste Equations as Images.

All Mathematical Equations should be typed using the appropriate tools.

(vii) Type the Answer Key in the same QB template across the respective Q.Nos and delete the last 3 columns

(CO,KL, Diff level) in the Answer Key file....