

**B.E. / B.Tech. - DEGREE EXAMINATIONS, NOV / DEC 2025**

Seventh Semester

**Computer Science and Business Systems**

**20CBPW703 - IT PROJECT MANAGEMENT WITH LABORATORY**

Regulations - 2020

Duration: 3 Hours

Max. Marks: 100

**PART - A (MCQ) (10 × 1 = 10 Marks)**

Answer ALL Questions

	<i>Marks</i>	<i>K-Level</i>	<i>CO</i>
1. Which one of the following is used to measure project time uncertainty? (a) Gantt Chart                      (b) CPM                      (c) PERT                      (d) WBS	1	K1	CO1
2. Float in a project network refers to: (a) Shortest duration                      (b) Delay without affecting finish date (c) Maximum resources                      (d) Earliest start time	1	K1	CO1
3. Which technique focuses on balancing resource usage? (a) Resource Loading                      (b) Resource Leveling                      (c) Crashing                      (d) PERT	1	K1	CO2
4. Project termination review is conducted to: (a) Approve new team members                      (b) Evaluate project outcomes (c) Create new sprint                      (d) Increase cost	1	K1	CO2
5. Agile Project Management divides work into short cycles called _____. (a) Modules                      (b) Phases                      (c) Sprints or Iterations                      (d) Tasks	1	K1	CO3
6. The principle “Deliver working software frequently” belongs to: (a) XP                      (b) Agile Manifesto                      (c) DevOps                      (d) Kanban	1	K1	CO3
7. The Product Owner is responsible for: (a) Managing team conflicts                      (b) Maintaining Product Backlog (c) Conducting testing                      (d) Deploying software	1	K1	CO4
8. Sprint duration typically ranges from: (a) 1–4 weeks                      (b) 2–6 months                      (c) Daily                      (d) 1 year	1	K1	CO4
9. Which tool is widely used for CI/CD? (a) Photoshop                      (b) Jenkins                      (c) Excel                      (d) MS-Word	1	K1	CO5
10. Which of the following is a container platform? (a) Selenium                      (b) Docker                      (c) SonarQube                      (d) Git	1	K1	CO5

**PART - B (12 × 2 = 24 Marks)**

Answer ALL Questions

11. Define feasibility study in project planning.	2	K1	CO1
12. Compare and contrast PERT and CPM.	2	K2	CO1
13. Show the importance of project cost control.	2	K1	CO2
14. Summarize resource leveling with example	2	K2	CO2
15. List any four Agile principles.	2	K1	CO3
16. Explain the relationship between Agile and Lean.	2	K2	CO3
17. What is Sprint Backlog?	2	K1	CO4
18. Illustrate the role of Scrum Master.	2	K2	CO4
19. Define Continuous Integration.	2	K1	CO5
20. Explain configuration management in DevOps.	2	K2	CO5
21. What is the role of the Development Team in Scrum?	2	K1	CO4
22. Define DevOps. Name any two DevOps tools.	2	K1	CO5

**PART - C (6 × 11 = 66 Marks)**

Answer ALL Questions

23. a) (i) Illustrate a project network and compute critical path for the given activity table. 7 K2 CO1  
(ii) Show the importance of float in scheduling. 4 K2 CO1
- OR**
- b) Outline PERT and CPM techniques to schedule a project and determine the critical path. Also briefly state the importance of float in project scheduling. 11 K2 CO1
24. a) Infer the steps involved in Risk Identification and Risk Response Planning in IT Projects. 11 K2 CO2
- OR**
- b) Show the procedures involved in Project Audit and Termination. 11 K2 CO2
25. a) Relate how XP and DSDM differ in planning and delivery approaches. 11 K2 CO3
- OR**
- b) Infer Agile principles to design a lightweight project execution workflow for a mobile app. 11 K2 CO3
26. a) Explain the key Scrum artifacts: Product Backlog, Sprint Backlog, and Increment. Also describe the significance of the Scrum events – Sprint, Sprint Review, and Sprint Retrospective in ensuring continuous improvement in the project. 11 K2 CO4
- OR**
- b) Describe the roles of the Product Owner, Scrum Master, and Development Team in Scrum. Explain how collaboration among these roles supports effective sprint execution and successful project delivery. 11 K2 CO4
27. a) Identify DevOps practices to explain how automated testing and build automation reduce deployment errors and improve delivery consistency in software project with an example. 11 K3 CO5
- OR**
- b) Apply DevOps pipeline concepts to explain how Continuous Integration and Continuous Deployment support faster software releases. 11 K3 CO5
28. a) Identify how containerization using Docker improves scalability, portability and simplified deployment in DevOps environments. 11 K3 CO5
- OR**
- b) Apply continuous deployment practices to release updates automatically to production. 11 K3 CO5