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**Question Paper Code: U7701**

B.E./B.Tech. DEGREE EXAMINATION, NOV 2024

Seventh Semester

Mechanical Engineering

(Common to all Branches except CSBS, AGRI)

21UME701-PROJECT MANAGEMENT AND FINANCE

(Regulations 2021)

Duration: Three hours

Maximum: 100 Marks

PART A - (10 x 1 = 10 Marks)

1. Which characteristics of project deals with buy or make decision..... CO1-U  
(a) Sub-contracting (b) Life cycles (c) Risk & Uncertain (d) change
2. A project is always ..... CO1-U  
(a) Customers specific (b) Company specific (c) Money specific (d) Materials specific
3. The performance of a specific task in CPM, is known CO1-U  
(a) Dummy (b) Event (c) Activity (d) Contract
4. The PERT in project management means program evaluation and \_\_\_\_\_ technique. CO1-U  
(a) resource (b) reconciliation (c) reconsideration (d) review
5. Most of the scheduling methods available today require the project manager to classify the project as either \_\_\_\_\_ constrained or \_\_\_\_\_ constrained. CO1-U  
(a) Time, quality (b) Quality, resource (c) Cost, time (d) Time, resource
6. In a resource-constrained project, the first priority in assigning resources is usually given to activities with the CO1-U  
(a) Smallest duration (b) Least slack  
(c) Most slack (d) Lowest identification number

7. Project quality means quality of the project end-items.... CO1-U  
 (a) Deliverable (b) Product (c) deliverable and product (d) safety
8. Which of the following doesn't qualify to be a synonym for CO1-U  
 inspection?  
 (a) Audit (b) Process Analysis (c) Peer Review (d) Walkthrough
9. A statement which sets out the assets and liabilities of a business firm CO1-U  
 and which serves to ascertain the financial position of the same on any  
 particular date is called as  
 (a) Trading Account (b) Profit and Loss Account  
 (c) Balance Sheet (d) Ledger Account
10. Current Ratio = \_\_\_\_\_. CO1-U  
 (a) Current assets / Current liabilities (b) Fixed assets / Current liabilities  
 (c) Debt / Current assets (d) Debt / Equity

PART – B (5 x 2= 10Marks)

11. Describe line and staff organization CO1-U
12. Explain Forward Pass and backward pass. CO1-U
13. Explain Parkinson's Law CO1-U
14. Describe Earned value Management. CO1-U
15. Explain the term liabilities. CO1-U

PART – C (5 x 16= 80Marks)

16. (a) Briefly explain types of project organization structure. CO1-U (16)  
 Or  
 (b) Explain the relationship between the WBS and organization CO1-U (16)  
 structure?
17. (a) Draw the project network and determine the critical path for the CO2- App (16)  
 following data.

Time in Months

| Activity | Optimistic time ( $t_o$ ) | Most likely time ( $t_m$ ) | Pessimistic time ( $t_p$ ) |
|----------|---------------------------|----------------------------|----------------------------|
| 1-2      | 5                         | 7                          | 9                          |
| 1-3      | 2                         | 5                          | 8                          |
| 2-4      | 1                         | 4                          | 7                          |
| 2-5      | 2                         | 3                          | 4                          |
| 3-5      | 6                         | 9                          | 12                         |
| 4-5      | 3                         | 6                          | 9                          |

Or

- (b) Draw a project network for the following data determine the CO2- App (16)  
critical path of the project.

| Activity              | A | B | C  | D   | E | F   | G |
|-----------------------|---|---|----|-----|---|-----|---|
| Immediate predecessor | - | - | A  | A,B | D | C,E | E |
| Expected Time (weeks) | 7 | 9 | 12 | 8   | 9 | 6   | 5 |

Construct a project network

Perform forward and backward passes

Determine project completion time

Calculate slack value

State the critical path

18. (a) Demonstrate in detail about the critical chain scheduling method CO3- App (16)  
with suitable real time example

Or

- (b) Interpret CCPM and CPM with suitable examples and state their CO3- App (16)  
application and limitations

19. (a) Illustrate the New seven tools of quality management with suitable CO3- App (16)  
diagram

Or

- (b) Illustrate the steps involved in quality function deployment (QFD) CO3- App (16)

20. (a) Examine the Cash flow analysis and Funds flow analysis CO4- Ana (16)

Or

- (b) (i) Compare the trial balance sheet and balance sheet CO4- Ana (16)  
(ii) Analysis the types of financial ratios in detail.

