



M.E DEGREE EXAMINATIONS: DEC 2022

(Regulation 2018)

Third Semester

CONSTRUCTION MANAGEMENT

P18CME0011: Construction Site Administration and Control

COURSE OUTCOMES

- CO1:** Plan job site layout for any construction project
CO2: Overcome the factors affecting the project productivity
CO3: Make the project communication with various agencies involved in the project
CO4: Analyze the project escalations
CO5: Control construction project

Time: Three Hours

Maximum Marks: 100

Answer all the Questions:-

PART A (10 x 1 = 10 Marks)

1. Identify the stake holder for financial approval related delays CO1 [K₂]
 - a) Owner & Governmental Agency
 - b) Governmental Agency
 - c) PMC, Owner & Governmental Agency
 - d) Owner & Financial Institute
2. Select the document, where risk management plan is available for a activity CO3 [K₂]
 - a) Contract Document
 - b) Method Statement
 - c) Safety Violation Letter from Client
 - d) Project Schedule
3. Select best role of Document Controller CO3 [K₂]
 - a) Assisting Billing & Planning
 - b) Assisting Project Manager
 - c) Managing Document correspondence
 - d) All the Above
4. Choose the IS code used in measurement of work done CO4 [K₂]
 - a) IS 1200, IS 3861, SP 27
 - b) IS 456, IS1200, IS3861
 - c) IS 12269, IS 226
 - d) IS 808, IS 1099
5. Choose the best project escalation deals with CO4 [K₂]
 - a) Project delay
 - b) Cost
 - c) Billing
 - d) All the Above

6. Select stakeholder using Enterprise Resource Planning in a project. CO5 [K₂]
- a) Project Manager, Planner and QS b) Time Officer, Accountant and Store Manager
- c) Project Manager, Planner, QS, Time Officer, Accountant, Store Manager d) Project Manager, Planner, QS, Time Officer, Accountant, Store Manager, Site Engineer
7. Select the best benefits of using ERP? CO4 [K₂]
- a) Project Planning and tracking b) Material Planning and internal billing
- c) Resource Management and Internal Billing d) Resource Management, Internal Billing and Cost Management
8. Choose the benefit of project review meeting CO5 [K₂]
- a) Mitigate progress delay b) Discuss risk involved in upcoming activities
- c) Discuss all the above d) Discuss on penalty imposed on delay
9. Select Stake holder in project kick-off meeting CO5 [K₃]
- a) Owner, PMC, Financing Institute and Contractor b) Owner, PMC, Governmental Agency, Financing Institute and Contractor
- c) Owner, PMC and Contractor d) PMC, Financing Institute and Contractor
10. Why Inter and Intra organizational relationship is required? CO2 [K₁]
- a) To Run project effectively b) Submitting report
- c) Transfer resources d) Financial support

PART B (10 x 2 = 20 Marks)

11. Name five sectors in Indian construction industry CO1 [K₂]
12. List best five allied industry supporting construction and GDP CO1 [K₂]
13. What are the roles of consultant in bill certification? CO2 [K₂]
14. Show the stages in project life cycle CO2 [K₂]
15. List all the basic facilities required in the construction project of G+5 floor configuration CO3 [K₂]
16. Demonstrate facilities available in First Aid/ Medical Room in a project site CO3 [K₂]
17. Why sub-contractor management is easier than labor management? CO4 [K₂]
18. List all the documents to be referred by client to approve variation order CO4 [K₂]
19. Write an online meeting invite to all top management staff to discuss on project review meeting. CO5 [K₂]
20. Write a minute of meeting for the top management meeting conducted to review project CO5 [K₂]

PART C (6 x 5 = 30 Marks)

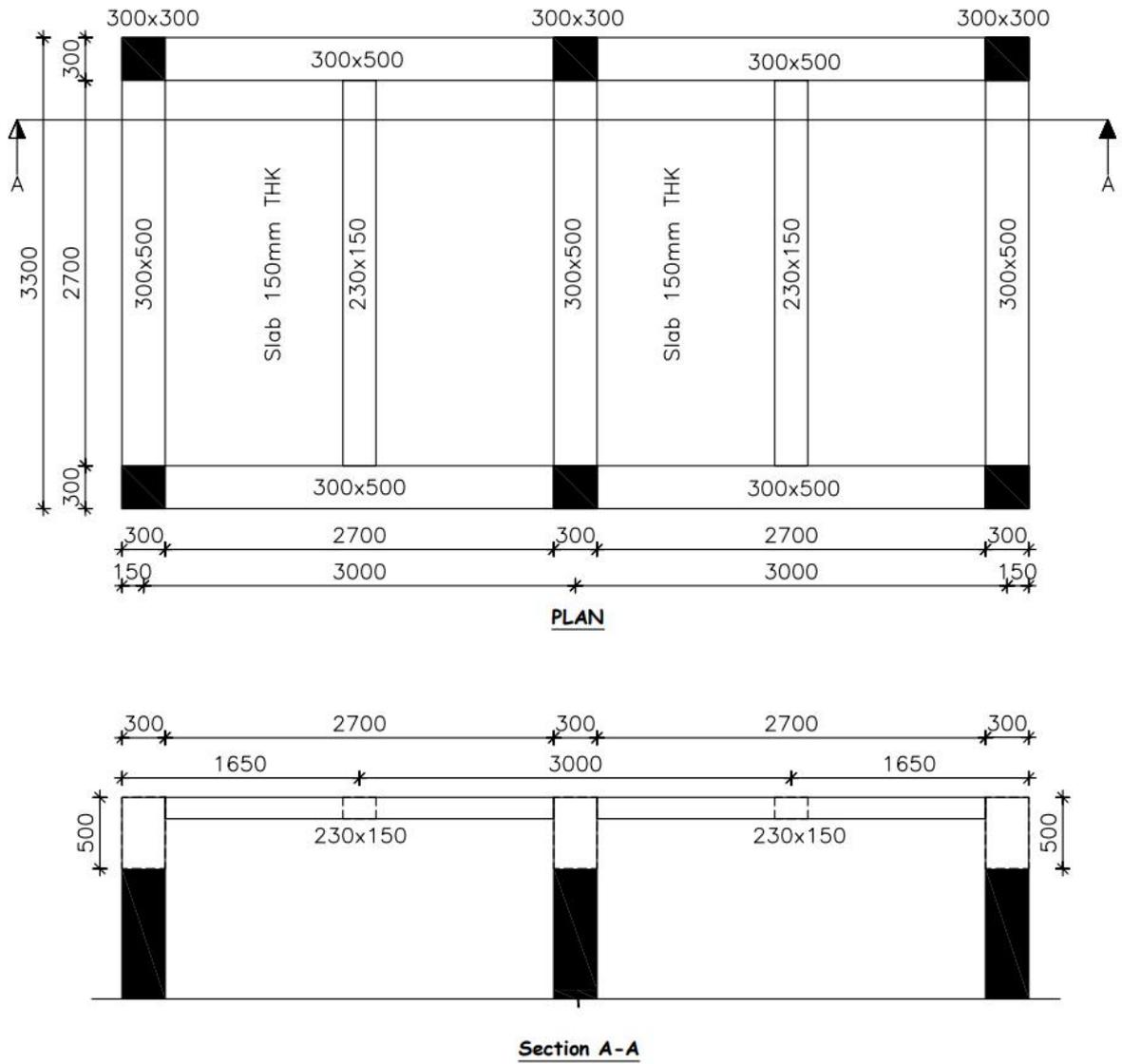
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|-----|---|-----|-------------------|
| 21. | Develop the requirement for getting both physical and commercial closure of a project | CO2 | [K ₅] |
| 22. | Appraise PMC team by drafting a letter for achieving first milestone ahead of schedule. | CO2 | [K ₃] |
| 23. | Develop a master list of record keeping & maintenance in head office for various projects | CO3 | [K ₃] |
| 24. | Estimate the concrete quantity required for plan given below (Figure.1) | CO4 | [K ₃] |
| 25. | Estimate the Shuttering quantity required for plan given below (Figure.1) | CO5 | [K ₃] |
| 26. | Explain the process involved in ERP? | CO5 | [K ₂] |

Answer any FOUR Questions

PART D (4 x 10 = 40 Marks)

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|--|---|-----|-------------------|
| 27. | Build project delay register for top 2 reasons for the delay impacted due to Special material requirement, land accusation, PMC and Interfacing contractor for a metro rail construction. Support register with a correspondence letter | CO1 | [K ₃] |
| 28. | Develop a gist for a project to be constructed of 6 storied Education institute with classic British Architecture of 3 Lakh Sq.m | CO2 | [K ₅] |
| 29. | Estimate the Rate Analysis for M30 Concrete, Fe550D Steel with 120 Kg for Cum of concrete and shuttering for the Diagram-1. Material and Labor rate shall be considered as per the market | CO4 | [K ₃] |
| <u>Mix Design for M30/ Cum</u> | | | |
| Cement – 400 Kg, Sand – 26 Cft, 20mm metal – 22 Cft, 12mm metal – 10 Cft and Admixture – 2.5 Lit | | | |
| <u>Shuttering for Slab and Beam/ Sq.m</u> | | | |
| Plywood - 0.05 Sq.m, Props – 3.5 No's, Span – 1.71 No's, Runner - .25 Cft, Nails & Shuttering tape – 0.12 Sq.m, Grease & oil - 0.05 Lit, Labor for making, shifting & Lifting – 2.5 No's | | | |
| 30. | Estimate the revised cost/ budget for above question (Question # 29) with steel cost inflated to 5%, cement by (-2%), all shuttering material increased by INR 25/ Sq.m and labor by INR 100/ Each | CO4 | [K ₃] |

31. Explain the requirement for S-Curve in the Schedule with resource loaded and levelled CO5 [K₂] in bell curve method



(Figure.1)
