

H.T No:

R18

Course Code: A30148



CMR COLLEGE OF ENGINEERING & TECHNOLOGY
(UGC AUTONOMOUS)

B.Tech VII Semester Regular/Supplementary Examinations November-2024

Course Name: Watershed Management

(Civil Engineering)

Date: 26.11.2024 AN

Time: 3 hours

Max.Marks: 70

(Note: Assume suitable data if necessary)

PART-A

Answer all TEN questions

Each question carries TWO marks.

10x2=20M

1. What is the need for watershed development in India? 2 M
2. Explain the basic objectives of watershed management. 2 M
3. List out the different types of erosion. 2 M
4. Define Geologic erosion. 2 M
5. Recall artificial recharge. 2 M
6. Explain the water harvesting structure. 2 M
7. Write a short note on Reclamation of saline and alkaline soils. 2 M
8. What do you know about the land use and land cover? 2 M
9. Write short notes on silvi pasture. 2 M
10. What is ecosystem? 2 M

PART-B

Answer the following. Each question carries TEN Marks.

5x10=50M

- 11.A). Develop a watershed and explain all its components with the schematic diagram. 10M
- OR**
11. B). Explain the Necessity of Watershed Management in India & list out the Principles of Watershed Management. 10M
12. A). How do you estimate soil loss due to erosion using Universal Soil Loss equation (USLE)? Explain briefly. 10M
- OR**
12. B). Apply the concept of different methods to control erosion methods and explain in detail with a neat diagram. 10M
13. A). Explain in detail about any 2 methods used for artificial recharge. 10M
- OR**
13. B). Describe the role of check dam, farm ponds and percolation tanks in Rainwater Harvesting. 10M
14. A). Discuss about the land capability classification. Explain reclamation procedure for alkaline and salt affected soils. 10M
- OR**
14. B). Explain classification of land under several categories and their purpose. 10M
15. A). Illustrate mixed and strip cropping and explain role of Ecosystem. 10M
- OR**
15. B). Explain about management of forest, agricultural, grassland and wild land. 10M

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Course Code: A30151



CMR COLLEGE OF ENGINEERING & TECHNOLOGY
(UGC AUTONOMOUS)

B.Tech VII Semester Regular/Supplementary Examinations November-2024

Course Name: Construction Technology and Project Management
(Civil Engineering)

Date: 28.11.2024 AN

Time: 3 hours

Max.Marks: 70

(Note: Assume suitable data if necessary)

PART-A

Answer all TEN questions

Each question carries TWO marks.

10x2=20M

1. Mention the roles involved in management process. 2 M
2. What is strategic management? 2 M
3. List the applications of construction management. 2 M
4. What are the limitations of bar charts? 2 M
5. What are the necessary resources for successful completion of a construction project? 2 M
6. What do you understand by "Resource Allocation". 2 M
7. Distinguish between agreement and contract. 2 M
8. What is Security Deposit? 2 M
9. Define the term "Bonus". 2 M
10. List out the laws related to wages. 2 M

PART-B

Answer the following. Each question carries TEN Marks.

5x10=50M

- 11.A). Compare various management theories. 10M
- OR**
- 11.B). What are the types of Organization structures? Explain any one type of organization structure in detail. 10M
- 12.A). How is Construction project classified? Explain various stages of Construction? 10M
- OR**
- 12.B). Draw a PERT network for the following data. Determine i) critical path and its standard deviation ii) expected mean time of the project and iii) probability of completion of project in 40 days. 10M

| Activity | $t_o - t_m - t_p$ (Days) |
|----------|--------------------------|
| 1 - 2 | 2 - 5 - 8 |
| 2 - 3 | 8 - 11 - 20 |
| 3 - 4 | 0 - 0 - 0 |
| 2 - 4 | 4 - 7 - 16 |
| 2 - 5 | 4 - 9 - 20 |
| 4 - 6 | 7 - 10 - 13 |
| 5 - 6 | 3 - 7 - 17 |
| 3 - 7 | 3 - 5 - 13 |
| 6 - 7 | 2 - 3 - 10 |
| 7 - 8 | 2 - 4 - 6 |

(P.T.O.)

13. A). What are the main objectives of manpower planning? Explain the factors influencing manpower planning? 10M

OR

13. B). What is Budget? Explain various budgetary control methods. 10M

14. A). Explain the different conditions of construction contracts. 10M

OR

14. B). Define Specifications. Explain different types of specifications along with suitable examples. 10M

15. A). Explain the legal and financial aspects of accidents in construction. 10M

OR

15. B). Explain the salient features of contract labour act in detail. 10M

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Course Code: A30154



CMR COLLEGE OF ENGINEERING & TECHNOLOGY
(UGC AUTONOMOUS)

B.Tech VII Semester Regular/Supplementary Examinations November-2024

Course Name: **Transportation Engineering-II**

(Civil Engineering)

Date: 03.12.2024 AN

Time: 3 hours

Max.Marks: 70

(Note: Assume suitable data if necessary)

PART-A

Answer all TEN questions

Each question carries TWO marks.

10x2=20M

1. List out different types of railway gauges with dimensions. 2 M
2. Define permanent way. 2 M
3. What is signalizing? 2 M
4. Define (a) Gradient (b) Ruling gradient. 2 M
5. Define wind Rose diagram. 2 M
6. Define Orientation of Runway. 2 M
7. Classify the ports. 2 M
8. Write about Inland Water Transport. 2 M
9. Elaborate ATIMS. 2 M
10. List the benefits of intelligent transport system. 2 M

PART-B

Answer the following. Each question carries TEN Marks.

5x10=50M

- 11.A). Give a typical cross section of a permanent way on an embankment indicating various components and describe their functions? 10M
- OR**
11. B). Find the no. of sleepers required for constructing a B-G railway track 640 m long, using sleeper density of M+5 where M is the length the rail in meters. 10M
12. A). Write in detail with the sketches: 10M
- OR**
12. B). Explain the different types of crossings with neat diagrams. 10M
13. A). Enumerate the various factors which you would keep in view while selecting a suitable site for an airport. 10M
- OR**
13. B). Write short notes on: 10M
- i) wind rose diagram
 - ii) terminal facilities at airport
 - iii) Taxiway Lighting
14. A). Explain classification of Harbours with examples. 10M
- OR**
14. B). Draw the layout of a dock and brief all the components. 10M
15. A). Overview the implementation of ITS in our country. 10M
- OR**
15. B). Discuss on advanced Public Transportation system in developing countries context. 10M
