H.T No: | | | | | | | | | | | **R18** **Course Code: A30148**

CMR COLLEGE OF ENGINEERING & TECHNOLOGY

(UGC AUTONOMOUS)

B.Tech VII Semester Supplementary Examinations April-2025

Course Name: Watershed Management

(Civil Engineering)

Date: 24.04.2025 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.	Explain the objectives of watershed development.	2 M
2.	List out the characteristics of watershed.	2 M
3.	List out the climatic factors that influence the Erosion.	2 M
4.	Explain the effect of erosion on land fertility.	2 M
5.	What is meant by rainwater harvesting?	2 M
6.	List out the rainwater harvesting structures.	2 M
7.	What is land use classification?	2 M
8.	Write a short note on Reclamation of saline and alkaline soils.	2 M
9.	Outline dry land agriculture.	2 M
10.	Write a note on sustainable agriculture.	2 M

PART-B

Answer the following. Each question carries TEN Marks. **5x10=50M**

11.A).	Explain how integrated and multi-disciplinary approach will help watershed management.	10M
	OR	
11. B).	Explain in detail Physiographic characteristics and Climatic characteristics of watershed.	10M
12. A).	Classify types of soil erosion and explain in detail.	10M
	OR	
12. B).	Explain How do you estimate soil loss due to erosion using Universal Soil Loss equation (USLE).	10M
13. A).	Explain about different types of water harvesting.	10M
	OR	
13. B).	Describe the role of check dam, farm ponds and percolation tanks in Rainwater Harvesting.	10M
14. A).	Discuss about Management of forest and agriculture lands.	10M
	OR	
14. B).	Explain the effects of salt affected soils in detail.	10M
15. A).	Discuss about the role of ecosystem and bio-mass management.	10M
	OR	
15. B).	Explain in detail about social forestry and afforestation with their advantages.	10M

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H.T No: | | | | | | | | | | | **R18** | **Course Code: A30151**

CMR COLLEGE OF ENGINEERING & TECHNOLOGY

(UGC AUTONOMOUS)

B.Tech VII Semester Supplementary Examinations April-2025

Course Name: Construction Technology and Project Management

(Civil Engineering)

Date: 26.04.2025 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. Illustrate management theories. 2 M
2. Mention some decision making tools. 2 M
3. List the construction stages. 2 M
4. Recall the term contract planning. 2 M
5. Define scheduling. 2 M
6. Write the applications of resource planning. 2 M
7. What is resource allocation? 2 M
8. Define arbitration. 2 M
9. Recall the term compensation for a labour. 2 M
10. Write the types of hazards in construction. 2 M

PART-B

Answer the following. Each question carries TEN Marks. **5x10=50M**

11.A). Discuss in detail about the various management theories. 10M

OR

11. B). Describe in detail the organization structure and also explain about motivation to workers. 10M

12. A). The network of a certain project is shown in Figure.1 with the estimated durations of various activities. Determine the following: (i) Earliest event time and latest event time (ii) Earliest and latest start and finish times of each activity. (iii) Total and free floats for each activity. (iv) Critical path for the network. 10M

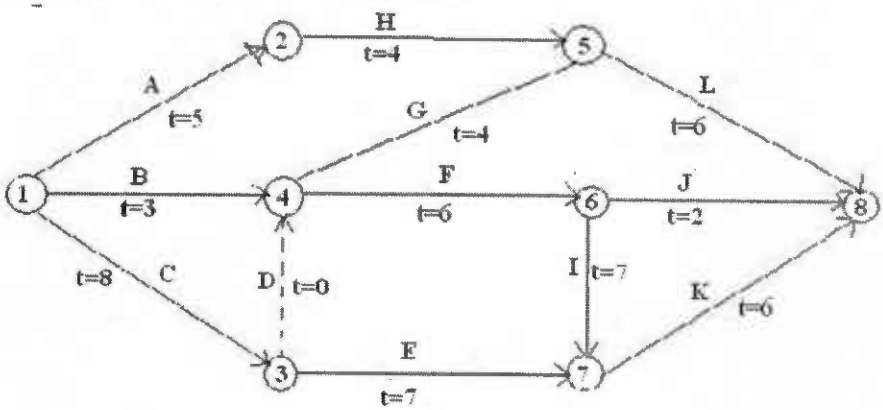

Figure 1

OR

12. B). Show the differences between Critical Path Method and PERT technique and aslo explain the applications of bar charts. 10M

(P.T.O..)

13. A). Descried in detail how the planning of man power and materials is done and also explain the types of scheduling. 10M

OR

13. B). Enumerate in detail the budget and budget control methods in detail. 10M

14. A). Discuss in detail the various types of contracts and their merits and demerits. 10M

OR

14. B). Describe the important conditions and specifications in tender document in detail. 10M

15. A). Write short notes on labour administration and management information system. 10M

OR

15. B). Discuss the various legal and financial aspects of accidents in construction and also explain how the safety hazard assessment is carried out? 10M

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H.T No: | | | | | | | | | | | R18 | Course Code: A30154

CMR COLLEGE OF ENGINEERING & TECHNOLOGY
(UGC AUTONOMOUS)

B.Tech VII Semester Supplementary Examinations April/May-2025

Course Name: Transporation Engineering-II

(Civil Engineering)

Date: 01.05.2025 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.	Give the various functions of sleepers.	2 M
2.	What is creep?	2 M
3.	Define negative super elevation.	2 M
4.	Define the term interlocking.	2 M
5.	State the importance of airport drainage.	2 M
6.	What are the factors influencing runway length?	2 M
7.	Why is dredging so essential in port operations?	2 M
8.	List the types of harbor.	2 M
9.	Tell the benefits of AVL system.	2 M
10.	What is the advanced transportation management system ATMS?	2 M

PART-B

Answer the following. Each question carries TEN Marks. **5x10=50M**

11.A).	Explain the basic requirements of a Permanent way.	10M
	OR	
11. B).	Define coning of wheels with the help of a sketch. State the reasons for coning of wheels.	10M
12. A).	Derive super elevation giving its relationship with gauge, speed and radius of the curve.	10M
	OR	
12. B).	Determine all the elements of a turnout, when the following data is given: Heel divergence = 13.65cm Angle of switch = 1° 34'27'' Gauge = 1.676m Number of crossing = 8.5	10M
13. A).	Outline the steps in determination of proper orientation for runway.	10M
	OR	
13. B).	Enumerate the various features involved in air traffic control network System.	10M
14. A).	Explain the layout concept on harbor with neat sketch.	10M
	OR	
14. B).	Write short notes on: i) Wharves vii) Jetties iii) Quays iv) Dolphins	10M
15. A).	Describe in detail about the travel and traffic management in ITS user services.	10M
	OR	
15. B).	Discuss the steps involved in ITS Architecture.	10M

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