

ANURAG Engineering College**(An Autonomous Institution)****III B.Tech II Semester Regular/Supplementary Examinations, June/July-2024****HIGHWAY CONSTRUCTION AND MANAGEMENT****(CIVIL ENGINEERING)****Time: 3 Hours****Max. Marks: 75****Section – A (Short Answer type questions)****(25 Marks)****Answer All Questions**

	Course Outcome	B.T Level	Marks
1. What is the Modified Proctor Compaction Test?	CO1	L1	2M
2. Summarize the significance of abrasion resistance in pavement materials.	CO1	L2	3M
3. What is Slurry Seal and what are its main components?	CO2	L1	2M
4. List out various applications of Bituminous Macadam (BM) in road construction.	CO2	L1	3M
5. What is the purpose of the skid resistance test on concrete pavements?	CO3	L1	2M
6. State the importance of curing in pavement construction.	CO3	L2	3M
7. What are key factors in selecting materials for road construction at high altitudes?	CO4	L1	2M
8. List out the environmental factors that influence hill road construction.	CO4	L1	3M
9. List out the different types of distresses typically found in concrete pavements.	CO5	L1	2M
10. Identify common maintenance problems encountered in bituminous pavements	CO5	L2	3M

Section B (Essay Questions)**Answer all questions, each question carries equal marks.****(5 X 10M = 50M)**

11. A) Discuss the Plate Load Test and its application in sub grade construction.	CO1	L3	10M
OR			
B) Describe the IRC guidelines for the construction of base courses, focusing on material quality and testing procedures.	CO1	L3	10M
12. A) Explain the construction steps involved in laying Dense Bituminous Macadam (DBM).	CO2	L3	10M
OR			
B) Discuss how Micro Surfacing can address specific pavement distress issues.	CO2	L3	10M
13. A) List and describe the primary construction equipments used in pavement construction.	CO3	L3	10M
OR			
B) Explain the construction process for asphalt overlays, including surface preparation, tack coat application, and placement of the overlay.	CO3	L3	10M

14. A) Discuss the importance of proper road alignment and grading in minimizing the impact of terrain features on hill road stability. CO4 L3 10M
- OR**
- B) Elaborate the role of slope stability tests during hill road construction. What methods are used to assess slope stability, and what factors are considered in determining acceptable stability levels? CO4 L3 10M
15. A) Discuss the challenges associated with pothole repair in bituminous pavements and suggest effective remedial measures. CO5 L3 10M
- OR**
- B) Describe the parameters measured during a Benkelman beam test and their significance in evaluating pavement deflection. CO5 L3 10M