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V Semester Diploma Examination, Oct./Nov.-2019

TRANSPORTATION ENGINEERING

Time : 3 Hours]

[Max. Marks : 100

- Instructions :** (i) Part – A : Answer any **six** questions. Each carries **5** marks.
(ii) Part – B : Answer any **seven** questions. Each carries **10** marks.

PART – A

1. Explain briefly the different modes of transportation. 5
2. What are the objectives of highway geometric design ? 5
3. What are the requirements of good road pavement ? 5
4. Explain briefly the component parts of bridge. 5
5. What is Cofferdam ? and List its requirements. 5
6. What are the factors affecting selection of good highway alignment ? 5
7. With neat sketch explain the flat footed rail. 5
8. Explain the purpose of providing fittings and fastening in tracks. 5
9. What are the advantages and disadvantages of tunneling ? 5

PART - B

10. Mention the various surveys to be conducted of road alignment and explain briefly reconnaissance survey and location survey. 10
 11. Explain the method of construction of Bitumen Bound Macadam (BBM) road. 10
 12. What are the requirements of a good drainage system and explain subsurface drainage system with sketch. 10
 13. What are the points to be considered while selecting a site for bridge ? 10
 14. List the different types of RCC bridge. Show the different components parts of Tee-beam bridge. 10
 15. Briefly explain the different components of permanent way with neat sketch. 10
 16. (a) Explain the necessity of points and crossing. 10
(b) What are the points to be considered for track maintenance ?
 17. List the classification of railway stations according to operation and functional characteristics. Explain 'A' class station with neat sketch. 10
 18. List the different forms of a urban railways. Draw a detailed, typical cross-section of underground railway tunnel in circular section. 10
 19. Define the terms : Aerodrome Beacon, Dock, Breakwater and Dredging. 10
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