

392

April 2016

032

Time - Three hours
(Maximum Marks: 75)

[N.B: (1) Answer any fifteen questions in PART - A and division (A) or division (B) of each question in PART - B.

(2) Each question carries 1 (one) mark in PART - A and 12 (twelve) marks in PART - B.]

PART - A

1. What is ribbon development?
2. Define camber.
3. Define expressway.
4. What is road arboriculture?
5. What do you mean by preliminary survey?
6. What is the use of scraper?
7. Mention the materials used in WBM road.
8. State any four advantages of concrete road.
9. Define creep of rails.
10. State the main function of loading gauge.
11. List the types of rail.
12. Name the different types of sleepers.
13. What is the purpose of locomotive yard?
14. What do you mean by buffer stop?
15. List the types of signals based on functional characteristics.
16. Define interlocking.
17. Define afflux.
18. What is cofferdam?
19. What is flush causeway?
20. State the use of bearings provided in bridges.

PART - B

21. (A) (i) Define super elevation and list out its advantages.
(ii) What is Atterberg limit? Explain in detail.

Marks
4
8

[Turn over.....]

		Marks
	(Or)	
(B)	(i) Briefly explain the Nagpur plan.	4
	(ii) Explain the causes of road accidents and its preventive measures.	8
22.	(A) (i) Explain briefly the maintenance of bituminous roads.	4
	(ii) Explain with neat sketches, the methods of formation of a hill road.	8
	(Or)	
(B)	(i) Briefly explain about engineering surveys in road formation.	4
	(ii) Explain with neat sketch, the construction procedure for concrete road.	8
23.	(A) (i) What are the advantages of having uniformity in gauges?	4
	(ii) Define ballast and explain the materials used as ballast.	8
	(Or)	
(B)	(i) With neat sketch, explain briefly the term coning of wheels.	4
	(ii) Define plate laying and list the methods of plate-laying. Explain any one method in detail.	8
24.	(A) (i) Write short notes on level crossing and fouling mark.	4
	(ii) Draw a neat sketch of a right hand turnout and indicate its components.	8
	(Or)	
(B)	(i) What are the advantages of underground railways?	4
	(ii) Explain in detail, the different methods adopted for control of movements of trains.	8
25.	(A) (i) What are the factors governing the selection of an ideal site for a bridge construction?	4
	(ii) What is meant by culvert? What are the various types of culverts? Explain any one with neat sketch.	8
	(Or)	
(B)	(i) Sketch and name different types of wing walls.	4
	(ii) Draw a neat sketch of a balanced cantilever bridge and explain in detail.	8