

October 2019

Time – Three hours
(Maximum Marks: 75)

- [N.B: (1) Q.No. 8 in PART – A and Q.No. 16 in PART – B are compulsory. Answer any FOUR questions from the remaining in each PART – A and PART – B
(2) Answer division (a) or division (b) of each question in PART – C.
(3) Each question carries 2 marks in PART – A, 3 marks in Part – B and 10 marks in PART – C.]

PART – A

1. Define sub grade?
2. What are express ways?
3. What is survey? Name the different types of surveys.
4. How concrete roads are classified?
5. Define fish plates.
6. What are the different types of rail joints?
7. Define railway yards.
8. What are the points to be considered for the alignment of a bridge?

PART – B

9. Describe grade separation. Name the different types.
10. What steps are necessary to ensure the proper maintenance of trees?
11. What are the objects of soil stabilization?
12. What are the requirements of bitumen?
13. Write a note on maintenance of track.
14. What is an engine shed? What are its types?
15. What are the factors which affect the selection of the type of a bridge?
16. Write about the causes and prevention of creep of rails.

[Turn over.....

PART - C

17. (a) Define sight distance and explain with sketches of different types of sight distance.
(Or)
(b) Explain the various types of pavements.
18. (a) Describe with neat sketches the different methods of formation of a hill road.
(Or)
(b) State and explain the factors to be considered for the alignment of road.
19. (a) Describe various materials used as ballast in a railway track.
(Or)
(b) Explain the various methods of plate laying in detail.
20. (a) Define crossing and explain the different types of crossing.
(Or)
(b) Describe with a diagram, the working of an absolute block system in controlling the movement of trains.
21. (a) What are the factors to be considered in the selection of foundation for a bridge?
(Or)
(b) Draw a neat sketch of the suspension bridge and explain the component parts.
