

157**April 2023*****Time – Three hours***
(Maximum Marks: 100)

- [N.B.]** 1. Answer all questions under Part-A. Each question carries 3 marks.
2. Answer all the questions either (A) or (B) in Part-B. Each question carries 14 marks.]

PART – A

1. Define Ribbon development.
2. Mention any six types of road gradient.
3. List out any six excavating equipments.
4. Write the disadvantages of bituminous roads.
5. Define rail. Name the various types of rail section.
6. State the causes and methods of preventing creep.
7. Mention any six purposes for need of station equipments.
8. Write any three objectives of signaling.
9. Write the expansion of IRC and list all the type of loadings as per IRC.
10. Draw neat sketch of suspension bridge and mark salient parts.

[Turn over.....]

PART – B

11. (a) Mention the types of traffic survey and list out the informations collected in traffic survey.

(Or)

- (b) Classify different type of highways. Explain any one method.

12. (a) Describe the necessity of realignment of existing road.

(Or)

- (b) Write short notes on (i) surface dressing (ii) bituminous concrete.

13. (a) Write the various classification of Indian railways.

(Or)

- (b) Describe the various types of rail joints used in a railway track.

14. (a) Draw the neat sketch of marshaling yard. Discuss the points should be kept in mind while designing of marshalling yard.

(Or)

- (b) Explain the types of crossing with neat sketches.

15. (a) Explain about the types of foundation used in bridges.

(Or)

- (b) List out types of abutments. Explain the various types of abutments with neat sketches.
