Register No.:	

# 157

## April 2023

### Time - Three hours (Maximum Marks: 100)

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

#### PART - A

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

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#### PART - B

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

(Or)

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

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