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Total No. of Printed Pages: [01]

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B. Tech Civil (Semester 7th)
TRANSPORTATION ENGINEERING-II
Subject Code: BCIES1-721
Paper ID: [19110735]

Time: 03 Hours

Maximum Marks: 60

Instruction for candidates:

1. Section A is compulsory. It consists of 10 parts of two marks each.
2. Section B consist of 5 questions of 5 marks each. The student has to attempt any 4 questions out of it.
3. Section C consist of 3 questions of 10 marks each. The student has to attempt any 2 questions.

Section – A

(2 marks each)

Q1. Attempt the following:

- a) What are different gauges used in India and why?
- b) Write significance of Ballast?
- c) Draw a layout diagram of station?
- d) Name the various types of Signals used.
- e) Why Super elevation is required?
- f) Name the components at an Airport?
- g) What do you understand by Wind rose diagram?
- h) Mention types of corrections applied for runway length?
- i) Give the factors for selection of an airport site.
- j) Illustrate use of IFR/IVR.

Section – B

(5 marks each)

- Q2. Name the various types of fixtures used by Indian Railways. Which one would you consider to be the best for modern tracks and why?
- Q3. Discuss principles of Interlocking
- Q4. Differentiate between Points and Crossings.
- Q5. Define runway configuration? Mention the operations per hours in case of various cases.
- Q6. Explain the function Land direction Indicator?

Section C

(10 marks each)

- Q7. (a) Draw the figure of a Permanent way showing its components.
(b) How High-Speed Tracks are different from Conventional tracks?
- Q8. (a) What is creep? Discuss the causes and effects of creep?
(b) Do Coning, Tilting and Adazing is interrelated on Railway track, if so how?
- Q9. a) State the requirements on which runway directions are fixed based on metrological conditions.
(b) Discuss different types of enroute and Landline aids in airway communication