Roll No.

Total No. of Pages: 2

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B.Tech. (CE) (Sem.-6th)

TRANSPORTATION ENGINEERING-II

Subject Code: CE-302 Paper ID : [A0618]

Time: 3 Hrs.

Max. Marks: 60

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INSTRUCTION TO CANDIDATES:

- SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
- SECTION-B contains FIVE questions carrying FIVE marks each and students has to attempt any FQUR questions.
- SECTION-C contains THREE questions carrying TEN marks each and students has to attempt any TWO questions.

SECTION-A

1. Answer briefly:

- Name the normal gauges adopted in Indian railways and write down their sizes.
- b) Distinguish between dog spike and screw spike.
- Differentiate between station and yard. c)
- d) What is ruling gradient?
- e) What is negative superelevation?
- What are starter signals? f)
- What is the significance of wind rose diagram? g)
- What is wave theory causing creep? h)
- Calculate the radius of the circular curve of 1 degree curvature.
- What function is performed by taxiway?

SECTION-B

- 2. Explain the following in respect of ballast used on railways
 - i) Functions
 - ii) Requirement of an ideal material
 - iii) Different materials used and their relative merits

- 3. Calculate the value of the equilibrium on a B.G for a speed of 48kmph. permitted on this curve, determine the
- 4. Sketch the following and indicate the s
 - i) section through tongue and stock r
 - ii) section through tongue and stock r switch rails in common use.
- 5. What are the imaginary surfaces? What the aid of neat sketches the shape of airports.
- 6. Explain how the basic runway length performance characteristics.

SECTION

- 7. i) Write short notes on :
 - a) Track requirements for high spe
 - b) Grade compensation on curves.
 - ii) What are the functions of signals What are various types of signals us effected between signals and points
- 8. i) Describe the circumstances under adopted.
 - ii) Explain obligatory points on a railw
 - iii) Using a sleeper density of M+5. required for constructing a rail M.G. track.
- Give the various principles of desig runway and a parallel taxiway.
 - ii) Explain the various aircraft charact
 - iii) Write short notes on Beacon light a