QP Code: RN21BTECH555 | Reg. No | | | | | | | | | | | AR 21

Gandhi Institute of Engineering and Technology University, Odisha, Gunupur
(GIET University)

B. Tech (Seventh Semester - Regular) Examinations, November – 2024

21BCVPC47002 – TRANSPORTATION ENGINEERING-II

(Civil Engineering)

Time: 3 hrs | Maximum: 70 Marks

Answer ALL questions

(The figures in the right hand margin indicate marks)

PART – A **(2 x 5 = 10 Marks)**

Q.1. Answer ***ALL*** questions	CO #	Blooms Level
a. Explain requirement of an ideal sleeper?	CO1	K1
b. Name different types of crossings?	CO2	K1
c. What is the function of transition curve in railway track?	CO2	K1
d. Write any three objectives of signaling?	CO3	K1
e. What any four major problems faced by Airlines?	CO4	K1

PART – B **(15 x 4 = 60 Marks)**

Answer ***All*** the questions	Marks	CO #	Blooms Level
2. a. Draw and Indicate various components of permanent way and their functions.	8	CO1	K1
b. What do you mean by rail and describe various types of rails with neat sketches?	7	CO1	K2
(OR)			
c. What is Ballast? What are the different types and enumerate the requirements of good ballast ?	8	CO1	K1
d. What are sleepers? What are the advantages and disadvantages of different types of sleepers?	7	CO1	K1
3.a. Define gradient in railway track and state the various classifications in gradients in railway track.	8	CO2	K3
b. Define super elevation in railway track and state the advantages.	7	CO2	K2
(OR)			
c. Explain the working of semaphore signal in detail with sketch.	8	CO2	K3
d. What are the advantages of automatic signaling system? Differentiate in detail in between starter and advance starter signal, co-acting and repeater signal.	7	CO2	K3
4.a. What is turnout? Draw the left hand turn out showing various components.	15	CO2	K2
(OR)			
b. Explain theories related to creep.	10	CO3	K3
c. Explain different quadrant systems of signalling.	5	CO3	K1
5.a. State the items to be taken in to account in the selection of a site and layout for an airport.	8	CO4	K1
b. What is standard atmosphere? How it is used in determining the adjustment to be made in the length of runway?	7	CO4	K2
(OR)			
c. Allowing a cant deficiency of 8.5 cms. What super elevation should be provided on a 3 degree curve in BG track corresponding to speed of 200 kmph.	8	CO4	K4
d. What is orientation of run way? Explain briefly.	7	CO4	K2

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