Total No. of Printed Pages: 2

| PRN No. | |
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PAPER U313-223 (RE)

December 2023 (REEXAM)

T.Y.B.TECH (SEMESTER - I)

COURSE NAME: TRANSPORTATION ENGINEERING Branch:

COURSE

CVUA31203

CIVIL ENGINEERING

CODE:

(PATTERN 2020)

Time: [2 Hrs.]

[Max. Marks: 60]

- (*) Instructions to candidates:
- 1) Figures to the right indicate full marks.
- 2) Use of scientific calculator is allowed
- 3) Use suitable data wherever required
- 4) All questions are compulsory. Solve any two sub questions each from each Question 1,2,3,4,5,and 6 respectively

| Q. | Question Description | Max. | CO | BT Level |
|-----|---|-------|-------|------------|
| No. | | Marks | mappe | |
| | | | d | |
| Q.1 | a) Explain Nagpur Plan | [5] | CO1 | Understand |
| | b) What is concept of PIEV theory | [5] | CO1 | Understand |
| 1 | c) Sketch the cross section of a flexible | [5] | CO1 | Understand |
| Q2 | a)What are different types of road interaction used | [5] | CO2 | Understand |
| | in highways | | | |
| | b) Elaborate accident studies | [5] | CO2 | Understand |
| | c) What are different types of bitumen used in roads construction | [5] | CO2 | Understand |
| | | | | |
| Q3. | a)Classify the bridges according to their applications | [5] | CO3 | Understand |
| | b)What are different types of load acting on bridges | [5] | СОЗ | Understand |
| | c) Sketch any 2 types of bridge and discuss their significance | [5] | СОЗ | Understand |
| | | | | |

| Q.4 | a)What are aircraft characteristics | | | |
|-----|---|-----|-----|------------|
| | , and an orate offar acteristics | [5] | CO4 | Understand |
| | b) Elaborate the concept of correction for elevation, gradient and temperature for runway length. | [5] | CO4 | Understand |
| | c) Why there is need of taxiway in airport | [5] | CO4 | Understand |
| Q.5 | a)Sketch the section of rails used in NG,MG and BG | [5] | CO5 | Understand |
| | b) What is grade compensation? Why it is needed | [5] | CO5 | Understand |
| | c) Elaborate concept of track maintenance. | [5] | CO5 | Understand |
| Q.6 | a)What is requirement of good harbors and ports. | [5] | C06 | Understand |
| | b)Classify the harbors | [5] | C06 | Understand |
| | c) What are jetties? What are their functions? | [5] | CO6 | Understand |
| | | | | |