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Total No. of Pages : 02

Total No. of Questions : 09

B.Voc. (Building Construction and Technology) (Sem.–5)

HIGHWAY ENGINEERING

Subject Code : BVBCT-503-20

M.Code : 92440

Date of Examination : 02-01-23

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. **SECTION-A is COMPULSORY** consisting of **TEN** questions carrying **TWO** marks each.
2. **SECTION-B** contains **FIVE** questions carrying **FIVE** marks each and students have to attempt any **FOUR** questions.
3. **SECTION-C** contains **THREE** questions carrying **TEN** marks each and students have to attempt any **TWO** questions.

SECTION-A

1. Write briefly :

- a) What are the various methods of classifying Roads?
- b) What are the objects of Highway planning?
- c) Why is camber required?
- d) List various elements of Highway geometric design.
- e) List various tests used to evaluate the strength properties of soil.
- f) List main types of Sub base or Base course failures.
- g) What are the various types of overlays?
- h) What does 15th percentile speed represents?
- i) How is Traffic volume data presented?
- j) How are Traffic islands classified?

SECTION-B

2. What are the different modes of Transportation? Explain the specific function of each of them.
3. Find the total width of a pavement on a horizontal curve for a new National Highway to be aligned along a rolling terrain with a ruling minimum radius. Assume necessary data
4. Specify the materials required for construction of WBM roads. What are the uses and limitations of this type of Road?
5. Discuss the importance of Highway Drainage.
6. List advantages and disadvantages of Traffic signals.

SECTION-C

7. Briefly outline the Highway development in India.
8. What are the various objectives of preliminary survey for highway alignment? Enumerate the details to be collected and various steps in the conventional method.
9. What is the significance of road user characteristics in traffic engineering? Discuss briefly the various factors which affect the road user characteristics and their effects in Traffic performance.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.