

S.B. Roll No.....

HIGHWAY ENGINEERING
5th Exam/Civil/2515/May'18

Duration: 3Hrs.

M.Marks:75

SECTION-A

Q1. a) Fill in the blanks.

15x1=15

- i. NHAI is under the control of _____.
- ii. Bitumen containing mineral matter is known as _____.
- iii. Road side development is termed as _____.
- iv. The stone wall constructed to protect the hill slope is _____.
- v. The first stage of route selection is _____.
- vi. Crushed rock is a _____ road aggregate.
- vii. _____ Map shows the contours of the area.
- viii. MOST signifies _____.
- ix. WBM road is an example of _____.
- x. Compaction of concrete pavements is done by _____.

b) State True or False

- xi. Reconnaissance is also referred as "Recci".
- xii. The maximum allowable super elevation is seven percent in plain area.
- xiii. Cutbacks can be used without heating.
- xiv. Gradient should always be greater than camber.
- xv. Landslide is one of the major problems of hill roads.

SECTION-B

Q2. Attempt any six questions.

6x5=30

- a. What are different causes of failure of bitumen roads?
- b. What is the necessity of road drainage?
- c. Explain stopping sight & passing sight distance.
- d. Explain the importance of soil stabilization.
- e. Explain the functions of IRC.
- f. What is Super elevation & why it is provided?
- g. Differentiate between breast wall & retaining wall.
- h. What is sub grade & what are its functions?

SECTION-C

Q3. Attempt any three questions.

3x10=30

- i. Explain with sketches, various methods of drainage of a hill road.
- ii. What is land slide? Give causes, prevention & control measures of landslides.
- iii. Define soil erosion. What are the important methods to control soil erosion?
- iv. Explain various defects & their remedial measures in a rigid pavement.
- v. Explain soundness test with neat sketch.