

No. of Printed Pages : 4

Roll No.

120752/030752

5th Sem. / Civil Engg./ (Spl. Highway Engg.)

Subject : Highway Engg.

Time : 3 Hrs.

M.M. : 100

SECTION-A

Note: Very Short Answer type questions. Attempt any 15 parts. (15x2=30)

Q.1 Define the following :

- a) Formation width
- b) Right of way
- c) Carriage curve
- d) Transition way
- e) Bitumen modifier
- f) Cut back
- g) Super elevation
- h) Location survey

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- i) Binder
- j) Rigid pavement
- k) Base course
- l) Soil compaction
- m) Seal coat
- n) Surface dressing
- o) Breast wall
- p) Ruts
- q) Frost heaving
- r) Rulling gradient

SECTION-B

Note: Short answer type questions. Attempt any ten parts 10x4=40

- Q.2
- i) What are the purpose of providing road shoulder.
 - ii) Why curves are provided on the road.

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- iii) What point must be kept in mind while aligning road in hilly area.
- iv) What is reconnaissance survey.
- v) What is function of soil as highway sub grade.
- vi) Define objective of highway planning,
- vii) What is requirement of a good road aggregate as per I.R.C.
- viii) What is difference between tar & bitumen.
- ix) What are the cause of land sliding.
- x) Draw the cross-section of hill road partly in filling & partly in cutting.
- xi) What are the importance of highway maintenance
- xii) What are the various causes of failure in the base course of a flexible pavement.
- xiii) Explain the difference between drag line and power shovel.
- xiv) Enlist the causes of failure of rigid pavement.

- xv) What are the different method of cross-drainage.

SECTION-C

Note: Long answer type questions. Attempt any three questions. 3x10=30

- Q.3 Explain CBR test on subgrade soil. Give its significance.
- Q.4 Discuss the I.R.C classification of roads.
- Q.5 Explain the merit and demerit of rigid pavement.
- Q.6 Explain in detail the maintenance of bituminous roads.
- Q.7 Explain in detail the necessity of study of air port engineering.

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