Code No: NR320105 **NR**

III B.Tech II Semester Supplementary Examinations,
November/December 2005
TRANSPORTATION ENGINEERING
(Civil Engineering)

Time: 3 hours **Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks

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1. (a) Develop the elements of different types of cross sections of highways and explain its specifications for different types of roads? [8]
   (b) Present the different features to be designed in highway geometrics and present its specifications? [8]
2. (a) Define " highway alignment " and present the procedure of alignment fixation under typical conditions? [8]
   (b) Develop the sight distance equation from the basic concept of manoeurability? [8]
3. (a) What are the general controls in horizontal alignment and explain the role of transition curve? [8]
   (b) Present the features of At-Grade and Grade-separated intersections? [8]
4. (a) Present the featurtes of road development plans in Indiaa? [8]
   (b) Present the different traffic studies to analyze the traffic characteristics? [8]
5. (a) What is the typical construction procedure of cement concrete roads and explain the precautions to be taken in minimizing the maintenance of cement concrete road? [8]
   (b) Present the maintenance procedure for a Bituminous roads under different pavement failures? [8]
6. (a) What are the different types of Rails and explain the probable failure forms in Rail under different weather and operational conditions? [8]
   (b) Present the concept behind 'Creep' and explain the measures to be taken for counteracting the influence of Creep? [8]
7. (a) Present the ideal characteristics of Ballast and sleepers? [8]
   (b) What are the different types of fastenings and explain their features? [8]
8. (a) Write about typical features of station yards and Goods yards with Layouts? [8]
   (b) What are the principles of interlocking and explain the features of different types of interlocking ? [8]

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