

Total Pages—4

V—Sem/CIVIL/2015(W)

( 2 )

HIGHWAY ENGINEERING

( Code : CET-502 )

Full Marks : 70

Time : 3 hours

Answer any five questions

Figures in the right-hand margin indicate marks

- 1. (a) Define right of way. 2
- (b) Draw a typical cross-section of a rigid pavement road in National Highways and mention the layers of road from the base. 5
- (c) Calculate the SSD on a highway at a descending gradient of 2.35% for a design speed of 65 kmph. Assume other data as per IRC recommendation. 7
- 2. (a) Draw a general shapes of different types of transition curves. 2

- (b) Draw the following (Each five Nos.) 5
  - (i) Regulatory signs
  - (ii) Warning signs.
- (c) Explain briefly with neat sketch of CBR Test. 7
- 3. (a) Differentiate between "Bitumen" and "Tar". 2
- (b) Write short notes on : 5
  - (i) D.L.C.
  - (ii) P.Q.C.
  - (iii) D.B.M.
  - (iv) B.C.
  - (v) W.B.M.
- (c) Design the rate of superelevation for a horizontal highway curve radius 750 m and speed 110 kmph. 7
- 4. (a) Differentiate premix carpet and semi dense carpet. 2

( Turn Over )

( 3 )

- (b) Explain briefly "How the sub-grade will prepared for a Nation Highways" with the steps of construction. 5
- (c) Write short notes on : 7
- (i) Mechanical Stabilization
- (ii) Lime Stabilization
- (iii) Cement Stabilization
- (iv) Fly ash Stabilization.
5. (a) What do you mean by Road Pavers and Bulldozer ? 2
- (b) State the causes of Flexible pavements with neat sketches. 5
- (c) Explain briefly sub-surface and surface drainage system is highways with sketches. 7
6. (a) Define Landscaping and arboriculture. 2
- (b) A vehicle travelling at 60 kmph was stopped within 2.8 seconds after the application of the brakes. Determine the average skid resistance. 5

( 4 )

- (c) Explain the working procedure with a neat sketchmetric plan view of a "Hot Mix Plant" used for production of D.B.M. & B.C. 7
7. (a) Define Texturing and separation membrane. 2
- (b) Classify traffic islands with neat sketches. 5
- (c) Draw a flow chart of organisation of State Highway Construction Department and specify their duties and responsibilities. 7

http://www.sctevtonline.com

Whatsapp @ 9300930012

Your old paper & get 10/-

पुराने पेपर्स भेजे और 10 रुपये पायें,

Paytm or Google Pay से