Course Name: Highway and Transport Engineering   Course Code: 201CEL303

Model Answer

Q.1 a Classification as per third twenty year road development plan – 4 marks
     Bifurcation of rural and urban roads -2 marks

Q.1 b Mix design as per Marshall Method theory– 4 marks
      All five graphs drawn with appropriate correlation – 3 marks

Q.1 c $e+f = (v^2/127R)$
      $e+0.15= (95^2/127*300)$
          e=8.68 %

Q.2 a Diagram shows all types of joints with correct positioning – 2 marks
      Function of each type – 2 marks

Q.2 b Design parameters- 1 marks
      Stress calculation -2
      Slab thickness design-2
      Dowel bar design-1
          OR
Design parameters- 2 marks
CBR chart-2
Fatigue and rutting criteria-2

Q.3 a Material specification -1
      Procedure-2

Q.3 b Material specification -3
       Procedure-4

Q. 4 a All 7 types of studies enlisted – 2
       any one type explained -3

Q.4 b All 4 forms mentioned and explained with types -5

Q.4 c Road user and vehicular characteristics explained -5