Total No. of Questions : 8] *[Total No. of Printed Pages : 2*

Roll No .....

CE-8042

B.E. VIII Semester

Examination, June 2017

Pavement Design

(Elective - II)

Time : Three Hours

Maximum Marks : 70

Note: i) Answer any five questions.
ii) All questions carry equal marks.

1. a) Discuss the loading of vehicle to change in ESWL. 3
   b) Write short note on. 7
      i) Contract pressure
      ii) Design wheel load
      iii) CBR
   c) What are the various factors to be considered in design of pavement? 4

2. a) Discuss the repetition of loads and their effect on flexible pavement design. 7
   b) What is VDF? How is it calculated for each category of vehicle and condition of vehicle, weather laden or unladen? 7

3. a) Draw the typical cross section of flexible pavement and show its various components. Also discuss the function of each component and their nomal thickness. 9
   b) Write Burmister method of flexible pavement design. 5

4. a) What is CBR? How is it find in the laboratory, write the procedure. 7
   b) Write the advantages and disadvantages of flexible and rigid pavement. 7

5. a) Write the stresses acting on a rigid pavement. Also discuss their importances. 7
   b) What is modulus of subgrade reaction and how is it calculated? 7

6. a) Write the salient point of rigid pavement design as per IS code or IRC. 9
   b) Write short note on . 5
      i) Expansion joint
      ii) Westergaard's stress theory

7. a) Write the method for flexible overlay over flexible pavement by Benkelman Beam method. 9
   b) What is contraction joint in rigid pavement? Discuss the use of dowel and tie bars in rigid pavement. 5

8. Write short note on (any four). 14
   a) North Dakota cone method
   b) Design wheel load
   c) Radius of relative stiffness
   d) Edge stresses
   e) Serviceability index method

******