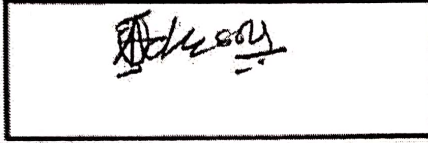




FACULTY OF ENGINEERING

DEPARTMENT OF CIVIL ENGINEERING
FIRST SEMESTER EXAMINATION (MARCH
2018)
2017/2018 ACADEMIC SESSION


HOD'S SIGNATURE

Instructions:

- 1) Attempt Four Questions
- 2) Time Allowed: 3 hrs
- 3) SEVERE PENALTIES APPLY FOR MISCONDUCT,
CHEATING, POSSESSION OF UNAUTHORIZED
MATERIALS DURING EXAMINATION

Course Title: Highway Engineering II

Course Code: CVE 517



FACULTY OF ENGINEERING
DEPARTMENT OF CIVIL AND ENVIRONMENTAL
ENGINEERING

Course Title: Highway Engineering II **Course Code: CVE517**
Session: 2017/18 **Semester: First** **Level: 500**
Instructions: Attempt Four Questions, **Time: 3 hrs**

Question 1 (15 marks)

- a) Define Highway Planning. (3 marks)
- b) Planning should be Comprehensive in nature. It should take into consideration all the influencing attributes in their present form and the likelihood of their impacts in future. What are the things required? (4 marks)
- c) State six specific objectives of highway planning. (8 marks)

Question 2 (15 marks)

- a) The availability of highway transportation has provided several advantages that contribute to a high standard of living. Mention four problems that are associated to the highway mode of transportation. (4 marks)
- b) Briefly explain how the negative impact of highways can be reduce. (2 marks)
- c) Discuss three main categories in which Traffic studies are grouped. (9 marks)

Question 3 (15 marks)

- a) What are the functions of pavement structure? (9 marks)
- b) Draw a schematic diagram of typical flexible and rigid pavements. (3 marks)
- c) Draw a schematic diagram showing the behaviour of 'Flexible' and 'Rigid' Pavement under wheel loads. (3 marks)

Question 4 (15 marks)

- a) State factors affecting the thickness design of highway pavement. (8 marks)
- b) With the aid of Flow Diagram only, explain the steps involved in the structural Design of pavement. (7 marks)