

**NATIONAL OPEN UNIVERSITY OF NIGERIA**

**14/16 AHMADU BELLO WAY, VICTORIA ISLAND, LAGOS**

**SCHOOL OF SCIENCE AND TECHNOLOGY**

**JUNE/JULY EXAMINATION**

**COURSE CODE: CHM 311**

**COURSE TITLE: Petroleum Chemistry**

**TIME ALLOWED:2hours**

**INSTRUCTION: Answer 4 questions only**

1. (i) Write short notes on the following
2. Generation of crude oil (4marks)
3. Oil Fields (4marks)

cOil Wells (4marks)

(ii) Define pour point (1½marks)

1. Write briefly on the following terms

(i)Town gas (4marks)

(ii) Bio gas (4marks)

(iii Hydrates (2½marks)

(iv) Diagenesis (4marks)

(v) Metagenesis (3marks)

1. Dependingontherelativeratioofthe hydrocarbon classesthat predominatein the mixture, list the various classes of crude oil. Discuss four of these classes in details.(17½marks)

4 (a) List the various methods of altering molecular structure in crude petroleum (3marks)

(b) Write short notes on each ofthefollowingterms:

(i) Upstream Oil Sector(4marks)

(ii) Downstream Oil Sector( 4marks)

(iii) Oil tanker( 4marks)

(iv) Pipeline transport(2½marks)

1. (a) List two uses of methyl chloride (2 marks)

(b)Discuss the potential market for Nigerian gas (15½ marks)

6.Write briefly on the following

1. production of urea (6marks)
2. uses of urea.(4marks)
3. Uses of methanol(7 ½ marks)