



CRAWFORD UNIVERSITY

FAITH CITY, IGBESA, OGUN STATE
COLLEGE OF NATURAL AND APPLIED SCIENCES
DEPARTMENT OF PHYSICAL & EARTH SCIENCES
GEOLOGY AND MINERAL SCIENCES

Harmattan Semester Examinations (B.Sc. Degree), 2016/2017

COURSE: GEM 401 – Petroleum Geology

UNIT: 3 Units

TIME ALLOWED: 3 Hrs.

INSTRUCTIONS: Answer any four (4) questions.

(Use clearly labelled diagrams where appropriate)

1.
 - a. Highlight the factors that aids the formation of hydrocarbons. (3 marks)
 - b. List the various types of hydrocarbons and describe any two. (6 marks)
 - c. State the theories that support the organic and inorganic evolution of hydrocarbons. (6 marks)

2.
 - a. List and describe the requirements necessary for a petroleum reservoir. (9 marks)
 - b. Explain the following terms:
 - i. Kerogen
 - ii. Cracking
 - iii. Geochemical fossils (6 marks)

3. Give a detailed description of the processes of diagenesis and maturation of organic matter. (15 marks)

4. Write exhaustively on petroleum traps. (15 marks)

5. Write concise notes on the following:
 - a. Migration pathway of petroleum (9 marks)
 - b. Source rocks (6 marks)

6. Differentiate between the following terms:
 - a. Liptinite and Vitrinite Marcerals. (5 marks)
 - b. Mud logging and Wireline logging. (5 marks)
 - c. Clastic reservoir rocks and Carbonate reservoir rocks (5 marks)