



CRAWFORD UNIVERSITY

Faith City, Igbesa, Ogun State.

2020/2021 RAIN SEMESTER EXAMINATIONS

COLLEGE: NATURAL AND APPLIED SCIENCES

DEPARTMENT: BIOLOGICAL SCIENCES

PROGRAMME: MICROBIOLOGY

COURSE CODE AND TITLE: MCB 410 – PETROLEUM

MICROBIOLOGY

UNITS: 2

TIME: 2 HOURS

INSTRUCTION: ANSWER QUESTION 1 WITH ANY OTHER THREE QUESTIONS.

1. With the aid of a diagrammatic representation of Carbon Cycle, critically appraise the formation of crude oil (15mks)
2. (a) Discuss the general composition of crude oil.
(b) List the bioremediation treatment techniques suitable for the following:
 - i. Heavily contaminated petroleum waste site
 - ii. Military sites contaminated with explosives
 - iii. Sediments contaminated with petroleum hydrocarbons like coal tars. (15mks)
3. Give an account of Phytoremediation and Bioremediation of crude oil contaminated environments. (15 mks)
4. (a) State the three classes of chlorinated hydrocarbons degraded by microorganisms.
(b) Explain the biodegradation of Polycyclic Aromatic Hydrocarbons (15mks)
5. Justify the emergence of environmental biotechnology for crude oil clean up. (15 mks)
- 6.(a) What is MEOR?
(b) Enumerate its advantages and disadvantages. (15mks)

24/06/2021