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FEDERAL UNIVERSITY OF TECHNOLOGY, OWERRI
SCHOOL OF ENGINEERING AND ENGINEERING TECHNOLOGY
DEPARTMENT OF PETROLEUM ENGINEERING
2019/2020 HARMATTAN SEMESTER EXAMINATION

COURSE TITLE: OIL POLLUTION AND CONTROL
COURSE CODE: PET 411
INSTRUCTION: ANSWER ANY FOUR (4) QUESTIONS

DATE: February 20, 2021
TIME: 2 1/2 Hours
UNITS: 3

Question 1

- Briefly explain the common clean up techniques for oil spill and classify oil spills according to sizes in tons.
- How does oil film appear on water when the quantity of the oil in the film is 50, 100, 150, 300, 1000, and 2000 litres respectively?
- State the five main types of spilt oil and give the equation and the meaning of each of the parameters for estimating the average thickness of oil spilled over the surface of the sea.

Question 2

- There are several Environmental Regulatory Bodies in Nigeria. Write on any three of them and four relevant environmental regulations.
- Briefly describe the common objectives of environmental policies and regulations
- State the Environmental Ten Commandments as discussed in the class.

Question 3

- Write on four basic methods of controlling greenhouse gas emission from natural gas handling facilities.
- Write briefly on the five common activities that interfere with the environment and any two consequences of environmental abuse.
- What do you understand by the term Contingency Plan? Give its five benefits.

Question 4

oil pollution is the release of liquid petroleum hydrocarbon into the environment due to human activities

- What is Oil Pollution? Briefly state the ways by which crude oil is released to the environment
- Explain why the occurrence of oil pollution is on the increase worldwide
- What is a kick? Explain how failure to control a kick can lead to oil pollution
- What are skimmers? Differentiate between skimmers and booms

*Exploration
Production
Consumption*

- Tankers
- offshore platform
- Drilling rigs & wells
- Refined petroleum products and their by prod

Question 5

- Discuss the sea based causes of an Oil Pollution. What are the effects of oil pollution on water?
- What are the key components of an oil spill prevention system? Why is it important to prevent and control an oil spill?

Question 6

- What is a Boom? State 3 types of Booms. Discuss 3 uses of Booms
- State four best practices for the prevention of marine oil pollution
- Discuss the uses of Sorbents in oil pollution control
- State an advantage and a disadvantage of using dispersants in oil pollution control
- What is In Situ Burning?
- Discuss the land based causes of oil pollution. What are the effects of oil pollution on Birds?

*↓
- Curtain Booms - shoreline sea booms
- Fence booms*

This is the controlled burning

5c) A boom is an equipment used to prevent and control oil spillage in order to avoid oil pollution on various elements of nature. It is mainly a measure equipment.

release of petroleum hydrocarbon spreading