

PART III

SECTION E

1. List 3 factors that have significantly influence the evolution and design of system software especially operating system.
2. A teletype typically sends or receives TEN ASC II characters per second, if each character has 11 bits calculate the bit time.
3. Describe two different methods for transmitting characters in a computer network environment.
4. Convert 1001_2 to Gray Code
5. What do you understand by management information systems?
6. If the number of memory locations in a RAM CHIP is 256 how many address lines can be used to address a location?
7. Distinguish carefully between data and information.
8. What are the disadvantages of a time sharing system.
9. Briefly describe the various sub systems of a computer that are vulnerable to computer crime and fraud.
10. Enumerate the usefulness of computers.
11. Explain the term "Token Passing"
12. What does the acronym "TCP/IP" stand for? Explain

SECTION F

1. Discuss the role of either the microbiologist or the vegetation expert in environmental impact assessment.
2. Discuss the relationships that exist between Environmental Impact (EI), Environmental Impact Assessment (EIA), Environmental Impact Statement (EIS) and Environmental Evaluation Report (EER)
3. Describe the procedures for obtaining environmental permits for building new upstream facilities in the Nigerian Oil Industry.
4. How do heavy metals become associated with crude oils?
5. What are the roles of heavy metals in "Finger Printing" during oil spills?
6. Write briefly one each of the following (a) remediation (b) bioremediation (c) phytoremediation.
7. Discuss the statement "Oil activity infrastructure development in the Niger Delta appear to cause more severe and extensive environmental impact than oil pollution.
8. What does each of the following terms mean? (i) Exclusive Economic zone (ii) Continental Shelf (iii) Littoral zone (iv) Intertidal zone.
9. What is biodiversity? How would the construction and operations of a refinery affect biodiversity.

SECTION G

1. Given the equation

$$\frac{dN}{dt} = rN \frac{(K-N)}{K}$$

Where N = Population size
T = Time
K = Carrying Capacity

The equation represents the growth of organism in a medium where resources were initially abundant, but later became limiting.

- (a) Give a labeled graphic illustration of the growth equation
- (b) What is the growth form represented by the equation called?
- (c) What do you understand by 'carrying capacity'?
- (d) Relate the equation to eutrophication in a water body that had been polluted.

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SECTION H

1. What is meant by a Production Sharing Contract?
2. What are the basic features of service contracts? How many are currently in place in Nigeria?
3. Discuss the oil exploration rights granted under the Petroleum Act as amended.
4. What is unitization? Describe the different types.
5. Briefly examine the main features of a participation agreement. Are there any provisions in the Petroleum Act for participation by the state?
6. Critically discuss the legal issues involved in the deregulation of the downstream sector of the Nigerian Petroleum Industry.
7. Briefly consider the issues involved in the law and development of gas in Nigeria.
8. Write critical notes on any two of the following (a) marginal fields (b) oil mining lease (c) oil prospecting license and (d) oil exploration license.
9. What are the major differences between the repealed 1914 Minerals Acts Ordinance and 1969 Petroleum paying particular attention to the period of duration granted.
10. Comment on the legal aspect of the United Nations Approach to the ownership and control of Natural Resources and Wealth.