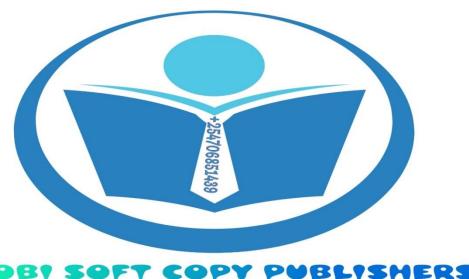
# ORM 4 COMPUTER STUDIES TOPICAL QUESTIONS



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Transparency, Honesty and Accountability Defined

## FORM 4 COMPUTER STUDIES **TOPICAL QUESTIONS**

## Prefer Calling Sir Obiero Amos @ **0706 851 439** for Marking Schemes

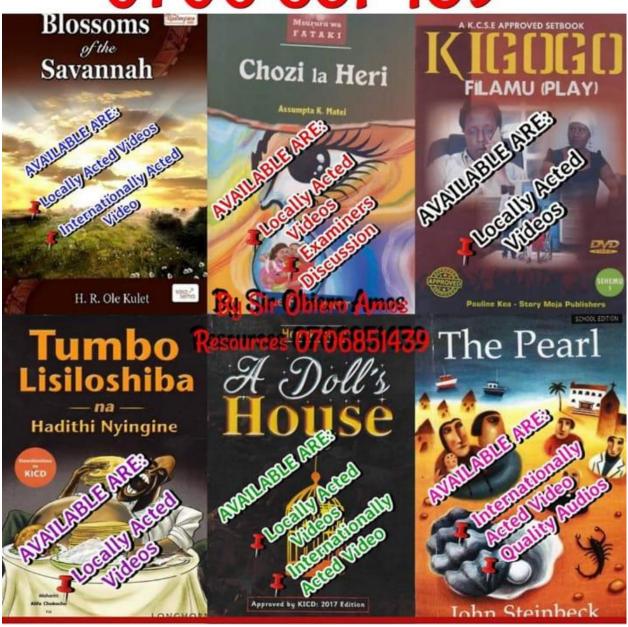
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## **NETWORKING & DATA COMMUNICATION**

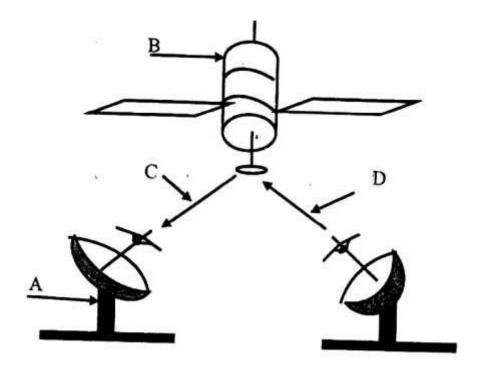
1. Define the following terms:	(2mks)
(i) Computer network	(2mks)
(ii) Data transmission	(2mks)
(b) Differentiate between a modern and a multiplexer.	(2mks)
<ul><li>3. State three advantages and three disadvantages of networking. (6mks)</li><li>Advantages</li><li>Disadvantages of networking</li></ul>	f computer
<b>4.</b> (a) What is a distributed system?	(2mks)

(b) State	any	two advantages of distribu	ted systems. (2mks)	
5. tran		tinguish between bounded sion media, giving two exa		
	<b>6.</b> State what is meant by each of the following data transmission media, and give two advantages and three disadvantages for each.			
	i)	Twisted pair cables.	(3mks)	
	•			
	Advantages			
	Dis	advantage		

ii) Coaxial cables
Advantages Disadvantages o
<ul><li>iii) Fibre optic cables is made of transparent glass and uses light to transmit data signals from one point to another on the network.</li><li>Advantages o</li></ul>
Disadvantages o
<ul><li>iv) Wireless/microwave/radio transmission. (3mks)</li><li>Advantages</li></ul>
Disadvantages

- **7.** Explain the function of the following network devices:
  - i) Network interface card (NIC)
  - ii) Gateway
  - iii) Bridge
  - iv) Repeater
- 8. List two advantages of cell phones over fixed lines. (2mks)

**9.** a) Study the diagram below and answer the questions that follow:



i) Name the communication media depicted in the above diagram. (1mk)

- ii) Name the parts labelled A, B, C, and D.(4 mks)
- A -Receiving earth station
- **B** -Satellite in space
- C -Down link
- **D** -Up link
  - iii) List three advantages of the above communication media. (3mks)

(2mks)

- **10.** a) Define the term network topology. (2mks)
- b) Distinguish between logical and physical network topology. (2mks)

### **APPLICATION AREAS OF ICT**

- 1. Write in full hence, explain the term ICT. (2mks)
- 2. State four areas where computers are used today. (4mks)
- 3. State two ways in which a computer may be used in efficient running of a hospital.

**4.** a) Name the type of processing that would be required by a payroll system. (1mk)

**b**) Identify two benefits of using computers in accounting systems. (2mks)

- 5. a) Write down all the input and output devices of an ATM machine of Pesa-point in Kenya.
  - b) List down three advantages of ATM cards.(3mks)
- **6.** a) State four components of an electronic Point-of-sale terminal. (4mks)
  - **b)** Give two advantages of using electronic point-of sale terminals as opposed to manual entry at a supermarket checkout counter. (2mks)
- **7.** Define the following terms:
  - a) Biometric analysis
  - b) Telecommuting

	8.	Outline four devices required in order to conduct a			
	vide	eo conference. (4mks)			
	9.	a)	Define the term E-commerce	(2mks)	
	b)	List	down two advantages of e- commerce a	ıs used in	
mod	ern b	usine	ess environment	(2mks)	
	10. Describe how computing has been applied to each the following areas:				
	i)	Tran	nsportation systems.	(2mks)	
		vi)	Reservation systems.	(2mks)	
		vii)	Law enforcement	(2mks)	
		viii)	Library management systems	(2mks)	

- 11. Suggest how computers may in future be made more user-friendly for persons that are:
- a) Blind (1mk)
- b) Without hands
- 12. Give at least four reasons why a firm may decide to computerize its operations

#### IMPACT OF ICT ON SOCIETY

1. Identify four problems associated with the introduction of computers in a society.

(4mks)

- 2. Distinguish between "job replacement" and "job displacement" in reference to Computerization (2mks)
- **3.** A recent breakthrough in the manufacturing industry is the development of a full manufacturing plant, that can produce vehicles using robots only.
- a) Give three advantages of fully automated manufacturing. (3mks)
- b) State three other areas where automation is applicable. (3mks)
- **4.** Discuss the applications of Artificial Intelligence in each of the following fields:

	i)	Expert systems				
	ii)	Natural language processing	(2mks)			
	iii)	Artificial neural networks.	(2mks)			
5.	Explain the impact of information technology on					
organization in each of the following areas						
	i)	Competition	(2 mks)			
	ii)	Pace of growth	(2 mks)			
6.	State three reasons why users may resist the					
introduction of information and communication						
Technology (ICT) to their place of work						

#### **CAREER OPPORTUNITIES IN ICT**

- **1.** Give a brief description of the following careers available in the computing field.
  - (i) Data processing managers (DPM) (2 mks)
- 2. Differentiate between software engineer and a computer engineer (2 mks)
- **3.** (a) Sate three public universities where one can further her computer studies (3 mks)
- (b) Identify at least three related courses offered at
- (i) College level
- (ii) University level

- **4.** (a) Name three responsibilities that are carried out by a:
- (i) Web administrator
- (ii) Computer trainer
- **5.** Explain two factors one would consider before enrolling for an ICT course in a college

