



MASENO UNIVERSITY
UNIVERSITY EXAMINATIONS 2018/2019

**FIRST YEAR SECOND SEMESTER EXAMINATIONS FOR THE
SCHOOL OF EDUCATION AND SCHOOL OF BUSINESS
ECONOMICS WITH INFORMATION TECHNOLOGY**

MAIN CAMPUS

UCI 102: COMPUTER COMMUNICATIONS SYSTEMS

Date: 1st April, 2019

Time: 12.00 - 3.00 pm

INSTRUCTIONS:

- Answer ALL questions in SECTION A and any other TWO from SECTION B



QUESTION ONE [30 MARKS]

Write the correct answer in the booklet, (only the corresponding alphabetical letter).

- (1) Complex networks today are made up of hundreds and sometimes thousands of: [1 marks]
- a) Documentations
 - b) Components
 - c) Servers
 - d) Entities
- (2) In Network Management System, a term that is responsible for controlling access to network based on predefined policy is called. [1 mark]
- a) Fault Management
 - b) Secured Management
 - c) Active Management
 - d) Security Management
- (3) Control of users' access to network resources through charges are mainly responsibilities of: [1 mark]
- a) Reactive Fault Management
 - b) Reconfigured Fault Management
 - c) Accounting Management
 - d) Security Management
- (4) Data communications are transfer of data through some. [1 mark]
- (a) Transmission medium
 - (b) linear medium
 - (c) Network LAN
 - (d) Protocols
- (5) Computer communication signal which is in form of continuous wave is called [1 mark]
- (a) digital signal
 - (b) modulation signal
 - (c) analog signal
 - (d) binary signal
- (6) Unguided communication media is [1 mark]
- (a) coaxial cable
 - (b) fiber optic cable
 - (c) twisted pair cable
 - (d) satellite
- (7) Decrease in strength or distortion of signal is known as; [1 mark]
- (a) Tuning bandwidth
 - (b) Modulation
 - (c) Attenuation
 - (d) Amplification
- (8) The arrangement of the computers in a network is called; [1 mark]
- (a) NOS
 - (b) Topology
 - (c) Node layout
 - (d) Protocol
- (9) The rules for exchanging data between computers are called; [1 mark]
- (a) Interconnections
 - (b) Synchronous packages
 - (c) Protocols
 - (d) Data transmission synchronization
- (10) Which one of the following is the correct measure in a fault management in a Network Management is a step-by-step process ticketing: [1 mark]

- (a) Creating relevance for users and management in the network
 - (b) Restoration of services
 - (c) Routine network management
 - (d) Network installation
- (11) Transmission media are usually categorized as; [1 mark]
- (a) Fixed and unfixed
 - (b) Twisted and untwisted
 - (c) Guided and Unguided
 - (d) Determinated and Indeterminated
- (12) What is the meaning of the acronym CIA in full? [1 mark]
- (a) Criminal Investigation of America
 - (b) Computer Interface Application
 - (c) Confidentiality Integrity Availability
 - (d) All of the above
- (13) Optical fibres are best known to be resistant to the following condition [1 mark]
- (a) High frequency transmission
 - (b) Low frequency transmission
 - (c) Electromagnetic interference
 - (d) Refraction
- (14) Which of the following components is not used in Local Area Networks (LANs)? [1 mark]
- (a) Computer Modem
 - (b) Cable
 - (c) Modem
 - (d) Interface card
- (15) Which of the following is not the Networking Devices? [1 mark]
- (a) Gateways
 - (b) Linux
 - (c) Routers
 - (d) Firewalls
- (16) Which of the following can be software? [1 mark]
- (a) Routers
 - (b) Firewalls
 - (c) Gateway
 - (d) Modems
- (17) Firewalls are often configured to block: [1 mark]
- (a) Unwanted data traffic
 - (b) TCP traffic
 - (c) Both of the mentioned
 - (d) None of the mention.
- (18) The acronym NOS refers to the; [1 mark]
- (a) Operating systems on the client
 - (b) Network Orderly System
 - (c) Operating system of the network
 - (d) Networking architecture
- (19) If a computer on the network shares resources for others to use, it will be known as: [1 mark]
- (a) Server
 - (b) Client

- (c) Mainframe
(d) Minicomputer
- (20) For large network, which of these topologies will be ideal? [1 mark]
(a) Bus
(b) Ring
(c) Star
(d) Mesh
- (21) The process converting analog signals into digital signals so they can be processed by a receiving computer is referred to as: [1 mark]
(a) Modulation
(b) Demodulation
(c) Synchronization
(d) Digitizing
- (22) Print server uses _____ which is a buffer that holds data before it is send to the printer [1 mark]
(a) Queue
(b) Spool
(c) Node
(d) None of the above
- (23) Which of the following is required to communicate between two computers? [1 mark]
(a) Communications software
(b) Protocol
(c) Communication hardware
(d) All of above
- (24) Which of the following is considered a broad band communication channels?[1 mark]
(a) Coaxial cable
(b) Fibre optics
(c) Microwave circuits
(d) All of the above
- (25) In network performance metrics _____ is not one of the items used in metric monitoring [1 mark]
(a) Capacity
(b) Delay
(c) Configuration management
(d) Reliability
- (26) In computer communication, smoke signals is an example of communication through? [1 mark]
(a) Bounded medium
(b) Refractive medium
(c) Unguided medium
(d) Guided medium
- (27) Internet connectivity is another form of, [1 mark]
(a) World Wide Web
(b) www.mainframe.ke
(c) WAN of Internet
(d) None of the above
- (28) Repeaters in a network performs the following task [1 mark]
(a) Reroute weak signals
(b) Amplifies weak signals
(c) Regenerate weak signals
(d) Resample signals

- (29) A network router joins two _____ together? [1 mark]
- (a) Computers
 - (b) Switches
 - (c) Networks
 - (d) Internets

- (30) What is the best task of a Bridge in a Network? [1 mark]
- (a) Connect Local Area Networks
 - (b) To separate Local Area Networks
 - (c) To Control Network speeds
 - (d) To Link the Router to the Server

QUESTION TWO [20 MARKS]

- (a) Enterprise Resource Planner,(ERP) is a system software designed and customized to serve the need of an organization in terms of network automation. State and briefly explain any five benefits of such ERP in a learning institution when intergrated with a banking system through VPN. [10 marks]
- (b) Name and briefly explain any five measures to be taken in safe gurdng data and information in a computer network [10 marks]

QUESTION THREE [20 MARKS]

- (a) Draw and label diagrams representing the following Network topologies.
- (i) Bus Topology [4marks]
 - (ii) Ring Topology [4 marks]
 - (iii) Star Topology [4 marks]
- (b) Differentiate between the following network types
- (i) Peer-to-peer network [4 marks]
 - (ii) Client-Server Network [4 marks]

QUESTION FOUR [20 MARKS]

- (a) Computer communications and network security management consists of implementing security controls, based on the security architecture to guide in preventing security breaches. Identify any four ways of providing the following types of security.
- (i) Logical security [4 marks]
 - (ii) Physical security [4 marks]
- (b) Briefly describe the following CIA components as applied in information and computer communication systems security procedures.
- (i) Confidentiality [4 marks]
 - (ii) Integrity [4 marks]
 - (iii) Availability [4 marks]