**TAKORADI TECHNICAL UNIVERSITY**

**END OF SECOND SEMESTER EXAMINATION**

**2018/2019 ACADEMIC YEAR DURATION: 1HR, 30MINS.**

**INFORMATION SYSTEMS SECURITY II**

**SECTION A:** MULTI CHOICE QUESTIONS

**Instructions: answer all questions in this section in the answer booklet**

1. All the followings are wired telecom technologies except
2. Enhanced Data rates for GSM Evolution (EDGE)
3. Synchronous Digital Hierarchy
4. Data Over Cable Service Interface Specification
5. Public Switched Telephone Network
6. Which of the following can transmit digital packet over copper voice circuits   
   at higher clock rate and also coexists with low frequency voice
7. Digital Subscriber Line
8. Digital Subscriber Line Access Multiplexer
9. Multiprotocol Label Switching
10. Public Switched Telephone Network
11. All the followings are characteristics of Asynchronous Transfer Mode (ATM) wired telecom technologies except
12. Synchronous, connection-oriented packet protocol
13. Packets called cells, are fixed length (5 byte header, 48 byte payload)
14. Not common in LANs, but widely used for WAN links
15. Packet switched technology, encapsulates TCP/IP, ATM, SONET, Ethernet frames
16. The common network topologies are
    1. Bus, star, ring and hybrid
    2. Ring, client-server, peer-peer, token ring
    3. Master, slave, internet, www
    4. Internet, intranet and extranet
17. Which of the following is a twisted pair network cable and connectors as 100Base-TX that uses all 8 conductors?
    1. 10Base-T
    2. 100Base-TX
    3. 1000Base-T
    4. 10Base2
18. Which of the following layer of the OSI concerned with the transfer of data between nodes
    1. Application
    2. Data link
    3. Session
    4. Transport
19. Which of the following layer of the OSI Manages the delivery of data from   
    node to node on a network
    1. Transport
    2. Physical
    3. Application
    4. Data link
20. Which of the following layer of the OSI Manages connections between nodes, including session establishment, communication, and teardown
    1. Application
    2. Data link
    3. Session
    4. Transport
21. Which of the following layer of the OSI deals with the presentation or representation of data in a communications session
    1. Application
    2. Data link
    3. Session
    4. Presentation
22. The expressed potential for the occurrence of a harmful event such   
    as an attack is termed as
    1. IP Address
    2. Network threats
    3. Topology
    4. Communication
23. Emails luring users to fraudulent sites
    1. Phishing
    2. Pharming
    3. Antivirus
    4. Virus
24. Attack on DNS that redirects access to legitimate sites to imposter sites
    1. Phishing
    2. Pharming
    3. Antivirus
    4. Worm
25. Automated, self-replicating program is
    1. Phishing
    2. Pharming
    3. Antivirus
    4. Worm
26. A subject in security access control refers to
    1. Users
    2. Files
    3. Reference Monitor
    4. Security Kernel
27. An object in security access control refers to
    1. Users
    2. Files
    3. Reference Monitor
    4. Security Kernel
28. Abstract machine that mediates subject access to objects is
    1. Users
    2. Files
    3. Reference Monitor
    4. Security Kernel
29. Core element of TCB that enforces the reference monitor’s security policy
    1. Users
    2. Files
    3. Reference Monitor
    4. Security Kernel
30. Which of the following in operations security explains policies, procedures, and controls that determine how information is accessed and by whom
    1. Data classification
    2. Access management
    3. Records retention
    4. Data restoration
31. Policies that specify how long different types of records must be retained (minimums and maximums) is
    1. Data classification
    2. Access management
    3. Records retention
    4. Data restoration
32. Which security operation concept does "User Account Control" implement?
    1. Need to know
    2. Least privilege
    3. Separation of duties
    4. Anti-virus and anti-malware

**SECTION B**

**Instruction: answer all questions**

1. List and explain all the layers of the OSI model
2. a. Explain how a modem works

b. Define the following

i. Multiplexer

ii Front end processor

iii. Switched lines

1. Define the following terms.
   1. Privacy
   2. Cybercrime
   3. Ethics
   4. Copyright
   5. Software Piracy
2. a. What is system development life cycle?

b. List and explain the various stages in system development life cycle (SDLC)