

Program/Course	BSC(Computer Science)
Semester	VI
Subject	Wireless sensor networks and Mobile Communication
Subject Code	87001

MULTIPLE CHOICE QUESTIONS:

1. _____ is the core of WSN which collects data from sensors.
 - A. controller
 - B. processor
 - C. transceiver
 - D. Power Amplifier

2. The device used to convert bit stream to and from radio waves is _____.
 - A. transceiver
 - B. antenna
 - C. actuator
 - D. controller

3. _____ is an operating system used in WSN.
 - A. Linux
 - B. NesC
 - C. Tinyos
 - D. Windows 95

4. _____ useful in WSN as they can reduce their power consumption by going into sleep states where only controller parts are active.
 - A. microcontroller
 - B. processor
 - C. transceiver

D . power amplifier

5. _____ is one of the hardware components in a wireless sensor

A. Memory

B.Video card

C. GPU

D.CPU

6. _____ is a design principle of WSN.

A. Data centricity

B. single hop topology

C .large memory

D. complex operating system.

7. In _____ , each mobile node is an independent node, which acts as a host and a router.

A. Wide area Network

B. Mobile Ad-hoc Network

C. Local area network

D. Metropolitan area network

8. _____ is an entity in WSN from which information originates.

A .Sink

B. Source

C. processor

D.transreceiver

9. FDMA,TDMA and CDMA comes under :

A. Fixed assignment protocol

B. Demand assignment protocol

C. Random assignment protocol

D. Transport control protocol

10. Which MAC protocol is used in WSN to reduce energy consumption and support self configuration?

A. Sensor-MAC protocol

B. Leach Protocol

C. Y-MAC Protocol

D. SPIN

11. Which of the following performance metrics of MAC protocol?

A. Delay, Throughput, Robustness, Scalability, Stability

B. Polling, Delay, Throughput, Robustness, Scalability

C. Reservation, Polling, Robustness, Stability

D. Reservation, Throughput, Robustness, Scalability, Stability

12. LEACH stands for :

A. Low-Energy Adaptive Clustering Hierarchy

B. Low- Energy Adhoc Cluster Hierarchy

C. Low-Efficiency Alternate Clustering Hierarchy

D. Low-Energy All Clustering Hierarchy

13. _____ is a process of simultaneously transmitting two or more individual signal over a signal over a single communication channel'

- A. Multiplexing
- B. Overpassing
- C. Demultiplexing
- D. Underpassing

14. Garuda comes under the downstream reliability group based on a _____ architecture.

- A. One tier
- B. Two tier
- C. Three tier
- D. N tier

15. Congestion control, reliability issue and energy conservation are the problems of _____ protocol.

- A. Routing
- B. Transport Control
- C. MAC
- D. Physical Layer

16. LEACH is a _____ based protocol

- A. Star

B. Clustering

C. Area

D. Packet

17. ALOHA comes under

A. Routing Protocol

B. Transport Control Protocol

C. MAC Protocol

D. Session layer protocol

18. Mobile communication can be setup with?

A. Repeater

B. Antenna

C. Access point

D. Hub

19. The process of transmitting two or more signals over a single communication channel is-

A. Demultiplexing

B. b. Modulation

C. c. Multiplexing

D. d) Demodulation

20. One of the advantage/s of cellular systems is/are-

A. More infrastructure required

B. Robustness

- C. Frequency planning required
- D. less infrastructure

21. One of the feature/s of GSM is/are

- A. Rapid call setup.
- B. Unavailability of network
- C. costly installation
- D. international roaming not supported

22. Which part of GSM is also known as core network?

- A. Network and switching subsystem
- B. Base station subsystem
- C. GPRS Network
- D. Operation support system

23. Which of the following statements is/are true?

P : Digital European Cordless Telephony (DECT) is well suited to both domestic and business use.

Q : DECT is dynamic channel allocation and digital voice coding provide a voice quality comparable to a landline

R : The DECT system is based on TCP principles.

Select the correct answer from the options given below:

- A. P and Q only

- B. P and R only
- C. Q and R only
- D. All of P, Q and R

24. The transmitter-receiver combination in the satellite is known as a

- A. Relay
- B. Repeater
- C. Transponder
- D. Duplexer

25. What is a cluster in a cellular system?

- A. Group of frequencies
- B. Group of cells
- C. Group of subscribers
- D. Group of mobile systems

Program/Course	BSC(Computer Science)
Semester	VI
Subject	Cloud Computing
Subject Code	87002

MULTIPLE CHOICE QUESTIONS:

1. _____ cloud is one where the cloud has been organized to serve a common function or purpose.

- A) Public
- B) Private
- C) Community
- D) Hybrid

2. _____ is the most refined and restrictive service model.

- A) IaaS
- B) PaaS
- C) CaaS
- D) SaaS

3. _____ computing refers to applications and services that run on a distributed network using virtualized resources.

- A) Distributed

- B) Cloud
- C) Soft
- D) Parallel

4. _____ as a utility is a dream that dates from the beginning of the computing industry itself.

- A) Model
- B) Computing
- C) Software
- D) Service

5. Point out the wrong statement:

- A) All applications benefit from deployment in the cloud
- B) With cloud computing, you can start very small and become big very fast
- C) Cloud computing is revolutionary, even if the technology it is built on is evolutionary
- D) SaaS require specific application to be accessed globally over the internet.

6. _____ model consists of the particular types of services that you can access on a cloud computing platform.

- A) Service
- B) Deployment
- C) Application
- D) Software

7. Which of the following is not a cloud stakeholder?

A) Cloud providers

B) Clients

C) End users

D) Cloud users

8. These cloud services are of the form of utility computing i.e. the _____ uses these services pay-as-you-go model.

A) Cloud providers

B) Cloud users

C) Clients

D) End users

9. Which is not an approach to virtualization

A) Partial virtualization

B) Lightweight virtualization

C) Full virtualization

D) Para virtualization

10. It helps a user to have remote access to an application from a server.

- A) Application virtualization
- B) Network virtualization
- C) Desktop virtualization
- D) Storage virtualization

11. It is an array of servers that are managed by a virtual storage system.

- A) Application virtualization
- B) Network virtualization
- C) Storage virtualization
- D) Desktop virtualization

12. _____ is an operating system or application environment that is installed on software, which reproduces dedicated hardware virtually.

- A) Virtual cloud
- B) Virtual computing
- C) Virtual machine
- D) Virtual method

13. Which of the following cloud concepts is related to pooling and sharing of resources?

- A) Virtualization
- B) Abstraction
- C) Polymorphism
- D) Sourcing

14. Which of the following is used to manage VMs?

- A) CPU
- B) AMM (Automatic memory management)
- C) VMM (Virtual Machine Monitor)
- D) RAM

15. In _____ the virtual machine simulates hardware, so it can be independent of the underlying system hardware.

- A) paravirtualization
- B) full virtualization
- C) emulation
- D) Sharing

16. What is most commonly used for managing the resources for every virtual system?

- A) Load balancer
- B) Cloud
- C) Router
- D) Hypervisor

17. Which of the following is another name for the system virtual machine?

- A) Hardware virtual machine
- B) Software virtual machine
- C) Real machine

D) Para machine

18. In Privileged modes ,Ring 0 is in _____privileged level.

A) less

B) most

C) greater

D) between

19. Red Hat and Ubuntu is a type of _____

A) IDE

B) Programming language

C) Operating system

D) API

20. _____ manages VM resources, including CPU, memory, disk and network interface.

A) Nova

B) Neutron

C) Cinder

D) Swift

21. _____ provides block level storage to VM.

A) Cinder

B) Keystone

C) Glance

D) Horizon

22. _____ is a piece of computer software or hardware that creates and run virtual Machine

A) Hypervisor

B) Nova

C) Glance

D) Swift

23. Logical Volume Manager (LVM) is divided into ____ functional components.

A) 2

B) 3

C) 4

D) 5

24. Node interface and Internal interface are used to configuring _____ interface.

A) Storage

B) Network

C) Block

D) Object

25. By default, all users have the same quota as the _____ quota.

A) Tenant

B) Tenant-user

C) Additional

D) User

Program/Course	BSC(Computer Science)
Semester	VI
Subject	Information Retrieval
Subject Code	87004

MULTIPLE CHOICE QUESTIONS

- Information retrieval is querying of _____ textual data.
 - structured
 - unstructured
 - formatted
 - Semi-structured

- Given two strings s1 and s2, the edit distance between them is sometimes known as the _____
 - Levenshtein distance
 - isolated-term distance
 - k-gram overlap
 - Jaccard Coefficient

- _____, _____ and _____ are main problems of information retrieval.
 - Document Indexing, Query Evaluation, System Evaluation
 - Acquisition, Representation, File Organization
 - Abstracting, Bibliographic description, clustering
 - Acquisition, Bibliographic description, clustering

- NIST stands for _____.
 - National Institute of Standards and Technology
 - Natural Information of Standards and Technology
 - National Institute of Systems and Technology
 - National information of Standards and Technology

5. A user wants to search something but ends up searching with another thing means the user is _____.

- A. Searching the documents.
- B. browsing the documents
- C. Retrieving the documents
- D. searching the content

6. In information retrieval, extremely common words which would appear to be of little value in helping select documents that are excluded from the index vocabulary are called:

- A. Stop Words
- B. Tokens
- C. Lemmatized Words
- D. Stemmed Terms

7. Levenshtein distance is also known as _____.

- A. Similarity between two documents
- B. Edit distance
- C. Dynamic Distance
- D. Comparison between two documents

8. The _____ for finding terms based on a query consisting of k-grams.

- A Document index
- B k-gram index
- C Inverted index
- D Term index

9. _____ filtering recommends products which are similar to the ones that a user has liked in the past.

- A Collaborative based
- B Context based
- C Content based
- D Collection based

10. _____ is a page that contains actual information on a topic.

- A Authority
- B Hub
- C Hyperlinks
- D Image

11. Input, Purpose and Output are the factors of _____ .

- A Question Answering
- B Page Rank
- C Summarization
- D Personalized Search

12. Invisible web is also called as _____ .

- A Dark web
- B Bad web
- C Unknown web
- D Distinct web

13. _____ search is web search results that are tailored specifically to an individual's interests.

- A Private search
- B Individual search
- C Personalized Search
- D Unique Search

14. _____ algorithms try to recommend items that are similar to those that a user liked in the past .

- A Collaborative based
- B Collection based
- C Context based
- D Content based

15. Measures of Similarity are as Follows:

- i. The lengths of the Documents.
- ii. The number of terms in common.
- iii. Whether the terms are common or unusual.

iv. How many times each term appears.

- A. i) & ii)
- B. ii) & iii)
- C. iii) & iv)
- D. i),ii),iii) & iv)

16. _____ is a subclass of information filtering systems that seeks to predict the “rating” or “preferences” a user would give to an item.

- A. Collaboration
- B. Recommender system
- C. Context
- D. Precision

17. Search engines use a of n _____ to automatically index sites

- A. crawler
- B. query
- C. enterprise
- D. sitebuilder

18. Each node of the tree is an XML element and is written with an _____

- A. Opening tag
- B. closing tag
- C. both a and b
- D. only a

19. The basic operation of a web browser is to pass a request to the web server. This request is an address for a web page and is known as the

- A. UAL: Universal Address Locator
- B. HTML: Hypertext Markup Language
- C. URL: Universal Resource Locator
- D. HTTP: Hypertext transfer protocol

20. _____ exploits weakness in the search engine algorithm to obtain high ranking for a website.

- A. White Hat SEO

- B. Black Hat SEO
- C. Grey Hat SEO
- D. SEO

21. SERP Stands for _____ .

- A. Search Engine required pages
- B. Simple Engine required Page
- C. Simple effect result pages
- D. Search Engine Result page

22. _____ is building data structures that enables searching.

- A. index process
- B. Query Process
- C. Text Acquisition
- D. Text Transformation

23. Query process Comprises of _____, _____ and _____.

- A. Index creation, Text Transformation, Text Acquisition
- B. User Interaction, Ranking, Evaluation
- C. Index creation, Text Transformation, User Interaction
- D. Text Transformation, Ranking, Evaluation

24. Two types of INEX are _____, _____.

- A. Data centric, Text Centric
- B. Content-Only, Content-and-structure
- C. Content-Only and Text centric
- D. Content-Only, No Coverage

25. The information sought is the main topic of the component and the component is a meaningful unit of information is _____.

- A. Too Small
- B. Too Large
- C. Fairly relevant
- D. Exact Coverage

Program/Course	BSC(Computer Science)
Semester	VI
Subject	Data Science
Subject Code	87006

1. What is data?
 - A. Raw Facts and Figures
 - B. Processed Information
 - C. Application of Knowledge
 - D. Mastering the use of information

2. What are the different kinds of data?
 - A. Quantitative and Qualitative
 - B. Continuous and Discrete
 - C. Binomial and Ordinal
 - D. Continuous and Ordinal

3. Quantitative data classification is _____.
 - A. Discrete and Continuous
 - B. Binomial and Ordinal
 - C. Nominal and Binomial
 - D. Discrete and Continuous

4. Qualitative data classification is _____.
 - A. Discrete, Continuous
 - B. Binomial, Nominal, Ordinal
 - C. Binomial, Ordinal, Discrete
 - D. Discrete, Continuous, Ordinal

5. What is Information?
 - A. Processed Data
 - B. Knowledge Data
 - C. Mastering of Information
 - D. Wisdom Data

6. Ordinal data is also known as _____.
 - A. Sequence Data
 - B. Ordered Data
 - C. Master Data
 - D. Processed Data

7. Binomial data consist of which type of values?
 - A. 1,0
 - B. 1,2

- C. 10,11
D. 20,30
8. _____ includes huge volume, high velocity, and extensible variety of data.
A. Massive data
B. Extensive data
C. Big data
D. Processed Data
9. _____ is an iterative process which enables data discovery, retrieval of data and maintains quality of data.
A. Data Curation
B. Data Analysis
C. Data Processing
D. Data removal
10. The process of collecting, managing and storing of data is called - _____.
A. Transferring
B. Preserving
C. Maintaining
D. Manipulating
11. Structured data is stored in _____ format.
A. Graphical
B. Modular
C. Tabular
D. Paragraph
12. _____ is a category of data processing that focus on transaction-oriented tasks
A. OLTP
B. OLCP
C. OLPS
D. Data Analysis
13. _____ is used for large no. of transactions by a large no. of users
A. Data Curation
B. Database
C. Online Transactional Processing
D. Data Engineering
14. Because of the high degree of organization and performance make structured data as the foundation of _____.
A. Database
B. Data Analysis
C. Data Manipulation
D. Big Data

15. Data from sensors are examples of _____ data
- A. Machine generated
 - B. Man generated
 - C. Document generated
 - D. Auto generated
16. _____ operations of data warehousing can be easily done in structured data
- A. Business Analysis
 - B. Business Intelligence
 - C. Data Extraction
 - D. Data Importing
17. In supervised machine learning an algorithm learns a model from _____ data.
- A. Training
 - B. Test
 - C. Train
 - D. Sample
18. The k-nearest neighbours' algorithm has low bias and _____ variance.
- A. Low
 - B. High
 - C. Less
 - D. Higher
 - E.
19. _____ is the full form of AIC.
- A. Akaike information criterion
 - B. Alkaline Information cluster
 - C. Akaike info cluster
 - D. Alakline Internal cluster
20. Cross validation technique is used to evaluate _____ model
- A. Statistical
 - B. Parametric
 - C. Predictive
 - D. Forecast
21. _____ is a regression analysis method that performs both variable selection and regularization
- A. LASSO
 - B. Ridge
 - C. Linear
 - D. Multiple
22. Ridge regression is a regularised _____ regression model.
- A. Logistics

- B. Linear
- C. Cross
- D. Multiple

23. _____ is the process of converting data or information from one format to another.
- A. Data Translation
 - B. Data conversion
 - C. Data manipulation
 - D. Data Transformation
24. The process of removing noise from data is called _____.
- A. Aggregation
 - B. Smoothing
 - C. Normalization
 - D. Cleaning
25. Supervised learning is classified into _____ and regression
- A. Clustering
 - B. Decision
 - C. Classification
 - D. Random forests

Program/Course	BSC(Computer Science)
Semester	VI
Subject	Ethical Hacking
Subject Code	87007

MULTIPLE CHOICE QUESTIONS

1. The security, functionality, and ease of use triangle illustrates which concept?
 - A) As security increases, functionality and ease of use increase.
 - B) As security decreases, functionality and ease of use increase.
 - C) As security decreases, functionality and ease of use decrease.
 - D) Security does not affect functionality and ease of use.

2. A security audit performed on the internal network of an organization by the network administration is also known as _____.
 - A) Grey-box testing
 - B) Black-box testing
 - C) White-box testing
 - D) Active testing

3. Which of the following is a tool for performing footprinting undetected?
 - A) Whois search
 - B) Traceroute
 - C) Ping sweep
 - D) Host scanning

4. Why would hackers want to cover their tracks?
 - A) To prevent another person from using the programs they have installed on a target system
 - B) To prevent detection or discovery
 - C) To prevent hacking attempts
 - D) To keep other hackers from using their tools

5. What is the process of hiding text within an image called?

- A) Steganography
- B) Encryption
- C) Spyware
- D) Keystroke logging

6. _____ is an attack which forces an end user to execute unwanted actions on a web application in which he/she is currently authenticated.

- A) Two-factor authentication
- B) Cross-site request forgery
- C) Cross-site scripting
- D) Cross-site scoring scripting

7. What type of program exists primarily to propagate and spread itself to other systems and can do so without interaction from users?

- A) Virus
- B) Trojan horse
- C) Logic bomb
- D) Worm

8. What is the first phase of hacking?

- A) Gaining access
- B) Maintaining access
- C) Reconnaissance
- D) Scanning

9. What type of virus modifies itself to avoid detection?

- A) Stealth virus
- B) Polymorphic virus

- C) Multipartite virus
- D) Multiple virus

10. What is sniffing?

- A) Sending corrupted data on the network to trick a system
- B) Capturing and deciphering traffic on a network
- C) Corrupting the ARP cache on a target system
- D) Performing a password cracking attack

11. Which of the following prevents ARP poisoning?

- A) ARP Ghost
- B) IP DHCP Snooping
- C) IP Snoop
- D) None

12. What type of information can be obtained during a session-hijacking attack?

- A) Passwords, Authentication information, Credit card numbers
- B) Passwords, Credit card numbers, Confidential data
- C) Confidential data, Authentication information, Credit card numbers
- D) Authentication information, passwords, credit card numbers

13. What response is missing in a SYN flood attack?

- A) ACK
- B) SYN
- C) SYN-ACK
- D) RST

14. Which of the following helps detect malicious attacks over a network using the signature matching technique?

- a) Router
- b) Switch
- c) IDS
- d) hub

15. What command-line utility can you use to craft custom packets with specific flags set?

- A) Nmap
- B) Zenmap
- C) Ping
- D) Netstat

16. What is a wrapper?

- A) A Trojaned system
- B) A program used to combine a Trojan and legitimate software into a single executable
- C) A program used to combine a Trojan and a backdoor into a single executable
- D) A backdoor used by hacker

17. WEP stands for what?

- A) Wireless Encryption Protocol
- B) Wired Encryption Protocol
- C) Wireless Encryption Privacy
- D) Wired Equivalent Privacy

18. Where is an IPS commonly placed in a network?

- A) In front of the firewall
- B) In line with the firewall
- C) Behind the firewall
- D) On the end user's device

19. Social engineering can use all the following except _____.

- A) Mobile phones
- B) Instant messaging
- C) Trojan horses
- D) Viruses

20. What is a vulnerability scan designed to provide to those executing it?

- A) A way to find open ports
- B) A way to diagram a network
- C) A proxy attack
- D) Way to reveal vulnerabilities

21. Which of the following challenges can be solved by firewalls?

- A) Protection against buffer overflows
- B) Protection against scanning
- C) Enforcement of privileges
- D) Ability to use nonstandard ports

22. Nslookup can be used to gather information regarding which of the following?

- A) Host names and IP address
- B) Whois information
- C) DNS server location
- D) Name server types and operating systems

23. A _____ indicates where the packet is located in the data stream so the receiving station can reassemble the data.

- A) Active attack
- B) Sequence number
- C) Passive attack
- D) BOTs

24. Entering Password::blah' or 1=1- into a web form in order to get a password is an example of what type of attack?

- A) Heap - based overflow
- B) Stack - based overflow
- C) SQL injection
- D) Buffer overflow

25. What is a reverse WWW shell?

- A) A web server making a reverse connection to a firewall
- B) A web client making a connection to a hacker through the firewall
- C) A web server connecting to a web client through the firewall
- D) A hacker connecting to a web server through a firewall