

Subject: Research in Computing (PSIT101)

Sample Questions

Q1. When a researcher calls a potential respondent by phone, and that person hangs up the phone without answering the survey questions, we call that person a:

- A. participant-observer.
- B. nonrespondent.
- C. moderator
- D. respondent.

Q2. What type of question occurs when an interviewer asks an interviewee: "Why do you feel that way?"

- A. Biased question
- B. Unstructured question
- C. Self-selection question
- D. Structured question

Q3. When a respondent fails to answer a question asked during a personal interview, this is called a(n):

- A. callback.
- B. item nonresponse.
- C. prop.
- D. self-administered questionnaire

Q4. The systematic process of recording behavior without influencing the behavior of the person who is being recorded is called:

- A. coaching.
- B. observation.
- C. click-through rate.
- D. response latency.

Q5. People who participate in a research experiment are called:

- A. modifiers
- B. confounders.
- C. subjects.
- D. testing effects

Q6. The process of assigning a "number" to a set of data points is called:

- A. convergent validity
- B. a category scale.
- C. measurement.
- D. discriminant validity.

Q7. When subjects have their attitudes measured several times, and the attitudes remain very consistent, we say that this attitude scale is:

- A. reliable.
- B. valid.

- C. high in face validity.
- D. high in content validity

Q8. Which aspect of an attitude is a consumer referring to when she says: "I love my new Honda Accord"?

- A. Cognitive
- B. Behavioral
- C. Disjoint
- D. Affective

Q9. A subset of people from a larger target market of people is called a

- A. population parameter
- B. sample.
- C. disproportionate sample
- D. stratified sample.

Q10. When a study is designed correctly, but is carried out in a way that is inconsistent with the design, this is a type of:

- A. random sampling error
- B. systematic sampling error.
- C. auspices bias.
- D. interviewer error

Q11. The application of the scientific method to attempt to find the truth about some business activity is called:

- A. performance-monitoring research.
- B. business research.
- C. production-oriented research.
- D. basic research.

Q12. Research that is not trying to solve a specific business problem for an organization but is interested in studying "knowledge in general" is called

- A. applied research.
- B. performance-monitoring research
- C. product-oriented research
- D. basic research.

Q13. Which type of research decision is trying to decide if a research project is the best use of its available funds?

- A. Product decision
- B. Benefits/costs decision
- C. Production decision
- D. Performance-monitoring decision

Q14. Which part of the Internet consists of a set of servers that retrieve information and create web pages?

- A. WWW
- B. EDI
- C. DSS
- D. PERT

Q15. When a researcher goes to the library to attempt to find articles that relate to the research study that she is planning to do, what is this called?

- A. A literature review
- B. Causal research
- C. Descriptive research
- D. An experiment

Q16. Which of the following is the first step in the problem-definition process?

- A. Identifying key problems.
- B. Choosing the unit of analysis.
- C. Writing the research objectives.
- D. Identifying key symptoms of the problem.

Q17. What type of research is exploratory and is not intended to provide "hard numbers?"

- A. Quantitative research
- B. Qualitative research
- C. Intersubjective research
- D. Phenomenology

Q18. What type of variable is "sales dollars?"

- A. Independent
- B. Continuous
- C. Discontinuous
- D. Categorical

Q19. Using a large computer to search through a large database to find trends among customers is an example of:

- A. neural networking.
- B. data mining.
- C. Myspace.
- D. single-source data.

Q20. The people who fill out and return a mail survey are called:

- A. participant-observers
- B. moderators.
- C. focus group participants.
- D. respondents.

Q21. Arranging data into a table is called:

- A. tabulation.
- B. cross-tabulation
- C. verification
- D. a histogram.

Q22. When a researcher converts the birth year of a respondent to that respondent's age, this is an example of:

- A. data transformation
- B. the outlier effect.

- C. a histogram.
- D. an index number.

Q23. What type of hypothesis refers to the study of how one variable changes from one group to another group?

- A. Critical value
- B. Relational
- C. Differences between groups
- D. Differences from some standard

Q24. The probability of the difference between an observed value and an expected value is called:

- A. a one-tail test.
- B. a significance level.
- C. a two-tail test.
- D. degrees of freedom.

Q25. The chi-square test is also called the ____ test.

- A. one-group t-test
- B. goodness-of-fit
- C. two-group t-test
- D. one-way ANOVA

Subject: Data Science (PSIT102)

Sample Questions

1. Data storage and processing tools are part of data science
 - A. environment
 - B. structure
 - C. none of these
 - D. ecosystem

2. Data Vault has how many types of components.
 - A. 3
 - B. 4
 - C. 5
 - D. 2

3. Data vault _____ connects hubs
 - A. satellites
 - B. hubs
 - C. links
 - D. entities

4. Match the correct explanation for the data approaches mentioned below:
Data Approaches:1. Schema on Write2. Schema on Read
Explanations:a. Schema exists before loading the data
b. Schema is created after loading the data
c. Schema & Data exist before loading the data
d. Schema & Data exist after loading the data"
 - A. 1-c, 2-d
 - B. 1-a, 2-c
 - C. 1-b, 2-d
 - D. 1-a, 2-b

5. A data lake holds data which of the following characteristics
 - A. none of these
 - B. both of these
 - C. Raw Data
 - D. vast amount of data

6. "Data Vault structure is built from which of the following data structures:A. Hubs B. Links C. Satellites D. Entity"
 - A. ABE
 - B. BCD
 - C. ABDE
 - D. ABC

7. Functional layer have how many supersteps

- A. 8
- B. 7
- C. 6
- D. 5

8. "Match the following terms with their descriptions correctly:Terms:1. Spark2. GraphX3. Mesos Descriptions:A. Open source platform developed by ApacheB. A powerful graph-processing API C. Is an open source cluster manager"

- A. A-1, B-2, C-3
- B. A-3, B-2, C-1
- C. A-2, B-3, C-1
- D. A-1, B-3, C-2

9. Apache Spark is which type of tool.

- A. data processing
- B. both of these
- C. none of these
- D. data storage

10. Which of these programming languages are used in data science.

- A. Scala
- B. R
- C. All of these
- D. Python

11.CRISP MODEL IS ASSOCIATED WITH

- A. data gathering
- B. Data mINING
- C. data warehouse
- D. Data Cleaning

12."Match the following terms with their descriptions correctly:Terms:A. The control sublayerB. The functional layer Description:1. records the processes that are running at any specific point within the environment. 2. ensures that the ecosystem is balanced across the accessible processing capability or has the capability to top up capability during periods of extreme processing. 3. controls the execution of the current active data science. 4. performs all the data processing chains for the practical data science."

- A. A-2, B- 3
- B. A-1, B- 4
- C. A-3, B- 4
- D. A-1, B- 2

13. There are how many layers in data science framework

- A. 4
- B. 5
- C. 7
- D. 6

14. Data Science Framework starts with

- A. operational layer
- B. business layer
- C. utility layer
- D. none of these

15. ___ means to evaluate how unique the specific value is, in comparison to the rest of the data in that field.

- A. Validity
- B. Accuracy
- C. Uniqueness
- D. Completeness

16. " _____ , is a database modeling method that is intentionally structured to be in control of long-term historical storage of data from multiple operational systems."

- A. Data warehouse
- B. Database
- C. Data Vault
- D. Datawarehouse bus matrix

17. Descriptive characteristics of the data are stored in

- A. hubs
- B. none of these
- C. links
- D. satellites

18. _____ is an open source cluster computing framework

- A. Mesos
- B. MQTT
- C. Akka
- D. Spark

19." _____ is a powerful graph-processing API for the Apache Spark analytics ."

- A. GraphS
- B. GraphB
- C. Graph
- D. GraphX

20.In CRISP modelling phase is looped with which phase

- A. Data preparation
- B. Evaluation
- C. Data Understanding
- D. Business Understanding

21.Apache Spark is which type of tool.

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23.CRISP MODEL IS ASSOCIATED WITH *

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24.There are how many layers in data science framework *

- A. 4
- B. 5
- C. 7
- D. 6

25.Data Science Framework starts with *

- A. operational layer
- B. business layer
- C. utility layer
- D. none of these

Subject: Cloud Computing (PSIT103)

Sample Questions

1. The _____ mechanism is a service agent that monitors and tracks communications between cloud service consumers and cloud services for dynamic scaling purposes.
 - a. Automated Scaling Listener
 - b. Automatic Scaling Listener
 - c. Automate Scaling Listener
 - d. Automated Scaled Listener

2. _____ is a common approach to horizontal scaling is to balance a workload across two or more IT resources to increase performance and capacity beyond what a single IT resource can provide.
 - a. Load Balancer
 - b. Load Distribution
 - c. Load Symmetric Balancer
 - d. Load Asymmetric Balancer

3. The _____ monitor mechanism is used to specifically observe the runtime performance of cloud services to ensure that they are fulfilling the contractual QoS requirements.
 - a. SLR Monitor
 - b. SLM Monitor
 - c. SLP Monitor
 - d. SLA Monitor

4. The _____ monitor mechanism measures cloud-based IT resource usage in accordance with predefined pricing parameters and generates usage logs for fee calculations and billing purpose.
 - a. Pay-as-Use
 - b. Pay-on-Use
 - c. Pay-per-Use
 - d. Pay-to-Use

5. _____ monitor mechanism is used for tracking data for networks and IT resources in support of (or dictated by) regulatory and contractual obligations.
 - a. SLA
 - b. Audit
 - c. Log
 - d. Automated Scaling Listener

6. _____ mechanism is used to increase the reliability and availability of IT resources by using established clustering technology to provide redundant implementations.

- a. Backup System
- b. Failover System
- c. Redundant System
- d. Real Time System

7. The _____ is a fundamental part of virtualization infrastructure that is primarily used to generate virtual server instances of a physical server.

- a. Virtualized Server
- b. Hypervisor
- c. VMware's
- d. VIMs

8. The _____ is used to group multiple IT resource instances so that they can be operated as a single IT resource.

- a. Resource Grouping
- b. Resource Association
- c. Resource Cluster
- d. Resource Assembling

9. The _____ is used to facilitate runtime data transformation so as to make a cloud service accessible to a wider range of cloud service consumer programs and devices.

- a. Multilevel Device Broker
- b. Mobile Device Broker
- c. Multi Device Broker
- d. Multiple Device Broker

10. A _____ is a storage device that is used to temporarily persist state data for software programs.

- a. State Management Database
- b. Stateless Management Database
- c. Stateful Management Database
- d. Stated Management Database

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

- a. Distributed
- b. Cloud
- c. Soft
- d. Parallel

12. Point out the wrong statement.
- a. The massive scale of cloud computing systems was enabled by the popularization of the Internet
 - b. Soft computing represents a real paradigm shift in the way in which systems are deployed
 - c. Cloud computing makes the long-held dream of utility computing possible with a pay-as-you-go, infinitely scalable, universally available system.
 - d. Cloud computing consists of virtualization techniques.

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

- a. Model
- b. Cloud Computing
- c. Software
- d. Architecture

14. Which of the following is an essential concept related to Cloud?

- a. Reliability
- b. Productivity
- c. Abstraction
- d. Portability

15. 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. Cloud storage is needed today.

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

- a. Polymorphism
- b. Abstraction
- c. Virtualization
- d. Specialization

17. Cloud computing is an abstraction based on the notion of pooling physical resources and presenting them as a _____ resource.

- a. Real
- b. Virtual
- c. Opaque
- d. Transparent

18. Which of the following is Cloud Platform by Amazon?

- a. Azure
- b. AWS

- c. Cloudera
- d. Cloudcroft

19. Cloud Computing refers to?

- a. accessing the hardware
- b. configuring the hardware
- c. manipulating the hardware
- d. verifying the hardware

20. Which of the following is true about cloud computing?

- a. Cloud computing is platform dependent
- b. Cloud Computing makes our business applications mobile and collaborative.
- c. Cloud Computing provides us means of accessing the applications as utilities over computers only.
- d. Cloud computing is complex to configure.

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25. A _____ service agent is able to intercept and forward the network traffic that flows within a cloud.
- a. Malicious
 - b. Anonymous
 - c. Trusted
 - d. Insider

Subject: Soft Computing Techniques (PSIT104)

Sample Questions

1. Neurons can not be termed as -----
 - a) Neurodes
 - b) Processing elements
 - c) Nodes
 - d) axioms
2. Combining a number of ADALINE is -----
 - a) MULTILINE
 - b) MULTIPLE LINE
 - c) MADALINE
 - d) MANYLINE
3. ----- is a Systematic method for training multilayer artificial neural network
 - a) Back propagation
 - b) Forward propagation
 - c) Speed propagation
 - d) Multilayer propagation
4. Reinforced learning also known as -----
 - a) Output based learning
 - b) Error based learning
 - c) Back propagation learning
 - d) Perceptron learning
5. ----- is a store house of associated patterns which are encoded in some form
 - a) Associative memory
 - b) Commutative memory
 - c) Neural networks
 - d) Memory
6. Self-organizing network also known as -----
 - a) Back Propagation network
 - b) Training free counter propagation network
 - c) Propagation network
 - d) Learning Algorithm
7. A program ----- is written in fortran for cluster formation
 - a) Vecquent
 - b) Vecant
 - c) Vector
 - d) Quantization
8. Kim Kyungyoun Proposed an ----- method using ART2 architecture.
 - a) Pattern Recognition
 - b) Chinese Recognition method
 - c) Character Recognition
 - d) Speech recognition
9. A ----- of a set A is the set of all possible subsets that are derivable from A including null set
 - a) Power set
 - b) Impower set
 - c) Rational set

- d) Irrational set
10. In case of \Rightarrow operator, the proposition occurring before the " \Rightarrow " symbol is called-----
- antecedent
 - consequent
 - conjunction
 - disjunction
11. $p(x)$ to denote the estimated probability of the _____ class for instance x.
- negative
 - positive
 - both negative and positive
 - either positive or negative
12. When the simulated annealing process is applied w the discrete Hopfield nernrork, it becomes _____.
- Cauchy machine
 - Boltzmann machine
 - Gaussian machine
 - Correlation network
13. The ----- of an organism is measured by means of success of organism in life
- Strength
 - fitness
 - Gene
 - Chromosome
14. In -----, inversion was applied with specified inversion probability p to each new individual when it is created.
- Discrete
 - Continuous
 - Mass inversion
 - Variance
15. Theory of Generalization doesn't depends on
- Bias and Variance Dilemma
 - Vapnic-Chervonenkis Dimensions
 - Training and Testing Curves
 - Case Study of Polynomial Curve Fitting
16. _____ is not the process of defuzzification
- Centroid method
 - Center of largest area
 - Center of sums
 - Min membership principle
17. -----exhibit non-linear functions to any desired degree of accuracy
- neuro –fuzzy
 - neuro-genetic
 - fuzzy –genetic
 - Genetic Algorithm
18. Recurrent network architectures adopting -----
- hebbian learning
 - supervised learning
 - unsupervised learning
 - reinforced learning

19. _____ may be defined as the process of reducing a fuzzy set into a crisp set or to convert a fuzzy member into a crisp member.

- Fuzzification
- Defuzzification
- Linguistic Variable
- Fuzzy Qualifiers

20. _____ is not the Fuzzy preposition.

- Fuzzy predicate
- Fuzzy qualifier
- Fuzzy quantifier
- Fuzzy rule base

21. BAM was introduced by -----

- a) Cruz
- b) Stubberd
- c) Kosko
- d) Rosenbatt

22. The algorithm which computes operator M is known as -----

- a) Memory algorithm
- b) Recording Algorithm
- c) Transfer Algorithm
- d) Computing algorithm

23. Real coding is used by -----

- a) Recognition of characters
- b) Fabric defect identification
- c) Optimization
- d) Classification of soil

24. ART stands for -----

- a) Adaptive Resonance Theory
- b) Adaptive Recent Theory
- c) Adapt Resonance Theory
- d) Adaptive Retail Theory

25. A program ----- is written in fortran for cluster formation

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- b) Vecant
- c) Vector
- d) Quantization

