

Seat
No.

PD-01

Total No. of Pages : 10

Shivaji University, Kolhapur
Ph.D. Entrance Examination February- 2024
Computer Application (Science & Tech.)
Sub. Code : 95027

Day and Date : Tuesday, 06-02-2024

Total Marks : 100

Time : 10:00 am to 12:00 noon

Instructions:

- 1) All questions are compulsory.
 - 2) Each question carries 2 marks.
 - 3) Answers should be marked in the given OMR answer sheet by darkening the appropriate option.
 - 4) Use black ball point pen only for marking the circle. Do not make any stray mark on the OMR Answer Sheet.
 - 5) Follow the instructions given on OMR Sheet.
 - 6) Rough work shall be done on the sheet provided at the end of question paper.
 - 7) Only non programmable calculators are allowed.
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SECTION-1

Q.1 Research objectives should be _____

- | | |
|-------------|---------------------|
| a) Clear | b) Precise |
| c) Feasible | d) All of the above |

Q.2 _____ prevent a researcher from blind search and intellectual wandering

- a) Data
- b) Sample
- c) Research tools
- d) Research Design

- Q.3 What is a research design?
- a) A way of conducting research that is not grounded in theory
 - b) The choice between using qualitative or quantitative methods
 - c) The style in which you present your research findings, eg. a graph
 - d) A framework for every stage of the collection and analysis of data
- Q.4 Which of the following is the first step in starting the research process?
- a) Searching sources of information to locate problem
 - b) Survey of related literature
 - c) Identification of problem
 - d) Searching for solutions to the problem
- Q.5 A research paper is a brief report of research work based on
- a) Primary Data only
 - b) Secondary Data only
 - c) Both Primary and Secondary Data
 - d) None of the above
- Q.6 The qualities of a good researcher include _____
- a) inquisitiveness
 - b) daration
 - c) ranking in class
 - d) none of these
- Q.7 Suresh, the son of Mahesh is married to Sia, whose sister Jia is married to Amar, the brother of Suresh. How is Jia related to Mahesh?
- a) daughter-in-law
 - b) cousin
 - c) sister-in-law
 - d) sister

- Q.13 Which Method is used for encoding the categorical variables?
- a) Label Encoder
 - b) Onelot Encoder
 - c) Category Encoder
 - d) All of these
- Q.14 In which of the following pattern, & visitor class is used which changes the exeenting algorithm of an element class?
- a) Visitor Pattern
 - b) MVC Pattem
 - c) Business Delegate Pattern
 - d) Composite Entity Pattern
- Q.15 Which of the following is an essential process in which the intelligent methods are applied to extract data patterns?
- a) Warehousing
 - b) Data Mining
 - c) Text Mining
 - d) Data Selection
- Q.16 Data can be updated in environment,
- a) data warehouse
 - b) data mining.
 - c) operational
 - d) informational.
- Q.17 A data warehouse is _____
- a) updated by end users.
 - b) contains numerous naming conventions and formats
 - c) organized around importent subject areas.
 - d) contains only current data
- Q.18 We classify design patterns by two criteria
- a) Aggregation
 - b) Scope and purpose
 - c) Behavior and structure
 - d) Object and class

Q.19 What is KDD in data mining?

- a) Knowledge Discovery Database b) Knowledge Discovery Data
- c) Knowledge Data definition d) Knowledge data house

Q.20 In Cloud Computing, what is a key characteristic of a hybrid cloud deployment model?

- a) Exclusive use of private cloud resources
- b) Seamless integration of public and private clouds
- c) Minimal reliance on third-party services
- d) Strict isolation of workloads
- e) None of these the mentioned

Q.21 What is the purpose of hyperparameter tuning in machine learning for computer applications?

- a) To decrease model accuracy
- b) To reduce training time
- c) To increase model complexity
- d) To optimize the model's performance

Q.22 Which of the following is NOT a type of data preprocessing available in Weka?

- a) Attribute selection b) Data cleaning
- c) Data normalization d) Data visualization

Q.23 What is the primary role of R in computer applications?

- a) Video Game Development
- b) Statistical Computing and Graphics
- c) Network Security
- d) Audio Editing

Q.24 Which of the following is a widely used and effective machine learning algorithm based on the idea of bagging?

- a) Random forest
- b) Regression
- c) Distributed computing
- d) Decision Tree

Q.25 Which of the following is a type of neural network?

- a) Decision tree
- b) Random forest
- c) Convolutional neural network
- d) Linear regression

SECTION-II

Q.26 Which of the following is also referred to as Windows Live Messenger native client contact?

- a) Friends list
- b) Buddy list
- c) Contact list
- d) None of the mentioned

Q.27 How to transfer data from controller to view?

- a) Using model object
- b) Using ViewBag
- c) Using ViewData
- d) All of the above

Q.28 _____ enables immediate continuation to the next phase of the project.

- a) Full approval
- b) Partial approval
- c) Denial of approval
- d) None of these

- Q.29 Beam penetration method is used in _____
- a) random scan system
 - b) raster scan system
 - c) magic scan system
 - d) none of these
- Q.30 The average time required to reach a storage location in memory and obtain its contents is called the _____
- a) seek time
 - b) turnaround time
 - e) access time
 - d) transfer ime
- Q.31 _____ step is performed by data scientist after acquiring the dam.
- a) Dara cleaning
 - b) Data integration
 - c) Data replication
 - d) all of these
- Q.32 Discovery of cross-sales opportunities is called _____
- a) segmentation
 - b) visualization
 - c) correction
 - d) association
- Q.33 Snowflake schema is applied for _____
- a) Aggregation
 - b) Generalization
 - c) Normalization
 - d) Transformation
- Q.34 What is contained within the Layout xmi file in android studio?
- a) Orientations and layouts that specify what the display looks like
 - b) The permissions required by the app
 - c) The strings used in the app
 - d) The code which is compiled to run the app

- Q.35 Recursively enumerable languages are not closed under _____
- a) Homomorphism
 - b) Complementation
 - c) Concatenation
 - d) Union
- Q36. _____ tree construction uses bottom-up approach.
- a) Red-Black Tree
 - b) AVT
 - c) Binary Search Tree
 - d) B-Trees
- Q.37 Which of these is a sort of independent type of malicious program that would not require any host program?
- a) virus
 - b) Trojan Horse
 - c) Worm
 - d) All of these
- Q.38 Neural networks can be used in _____
- a) Regression problems.
 - b) Classification problems
 - c) Clustering problems
 - d) All of these
- Q.39 A blockchain is a type of
- a) Object
 - b) Database
 - c) Table
 - d) View
- Q.40 Which is not a step of Requirement Engineering?
- a) Requirements elicitation
 - b) Requirements analysis
 - c) Requirements design
 - d) Requirements documentation

- Q.41 What is the purpose of the finalize () method in Java?
- a) To force garbage collection
 - b) To destroy an object
 - c) To handle exceptions
 - d) To define a constructor
- Q.42 What is the core functionality of the Spring framework?
- a) Object-relational mapping
 - b) Dependency injection and aspect-oriented programming
 - c) Web services development
 - d) Enterprise JavaBeans (EJB) development
- Q.43 What is the purpose of a mobile emulator or simulator in app development?
- a) To simulate real-world mobile network conditions
 - b) To run the app on an actual device
 - c) To test different screen sizes and resolutions
 - d) To automate UI testing.
- Q.44 In PHP, what does the foreach loop primarily iterate over?
- a) Database records
 - b) Array elements
 - c) Session Variables
 - d) File handles
- Q.45 Which type of machine learning algorithm is used for making predictions based on labeled data?
- a) Unsupervised learning
 - b) Reinforcement learning
 - c) Supervised learning
 - d) Semi-supervised learning

Q. 46 PVM is often called _____

- a) Python interpreter
- b) Python compiler
- c) Python volatile machine
- d) Python virtual machine

Q.47 What is the ready state of a process?

- a) when process is unable to run until some task has been completed
- b) when process is scheduled to run after some execution
- c) when process is using the CPU
- d) None of these

Q.48 Choose the option below which is not a member of class.

- a) Static function
- b) Virtual function
- c) Friend function
- d) Constant function

Q.49 The process of verifying the identity of a user.

- a) Authentication
- b) Identification
- c) Validation
- d) Verification:

Q.50 _____ record. is a set of one or more attributes taken collectively to uniquely identify a

- a) Primary Key
- b) Foreign key
- c) Super key
- d) Candidate key

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