

RESEARCH METHODOLOGY

Time : Three hours

Maximum : 100 marks

Answer any FIVE questions.

All questions carry equal marks.

1. Enumerate and explain important concepts involved in research design.
2. What are the types of researches? Describe various types and different approaches for carrying our research.
3. Explain the role of interpretation in research environment. State the meaning of interpretation its need and different techniques of interpretation
4. Computers do really require for performing research. Critically review the statement and justify with remarks.
5. Explain the binary tree and tree traversals, with their applications.

6. What is a B-Tree? Describe indexed sequential access method (ISAM) and explain m-way search trees.
7. What is client server database architecture? Why it is called distributed system? Explain its working and benefits of c/s model.
8. Explain parallel database and describe the performance issues. Discuss the benefits of parallel processing and parallel database.
9. Define generalized delta rule and explain back propagation learning algorithm. What are the applications of BPN?
10. Write short notes on
 - (a) Hebbian coincidence learning.
 - (b) Associative memory and applications.

ADVANCED TOPICS IN COMPUTER SCIENCE

Time: Three hours

maximum: 100 marks

Answer any FIVE questions.

1. Explain the concept of classes and objects in Java.
2. Discuss the concept of RMI in detail.
3. Explain the various components and events of a Java Bean.
4. What are servlets? Explain their role. Write an example to illustrate the use of servlet.
5. Explain the advantages of WAP. Compare WAP and HTTP.
6. Explain WAP development tools in details.
7. Discuss the following.
 - (a) Spatial queries.
 - (b) Multimedia data bases.

8. Explain the characteristics of Mobile data bases.
 9. Explain COM and DCOM model in detail.
 10. Write short notes on.
 - (a) Three tiered design.
 - (b) CORBA Interface definition language
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DATA MINING AND WARE HOUSING

Time : Three hours

Maximum : 100 marks

Answer any FIVE questions.

All questions carry equal marks.

1. Define data mining. Explain data mining process in KDP. Explain data characterization and discrimination.
2. What are OLAP serves? Explain various types of servers and compare. What is data cube technology?
3. Explain data dimensionality reduction and data compression. How wavelet and PCA are used for this?
4. Write the features of data mining query language. Explain the architecture of a data mining system.
5. What is concept description? Explain analytical characterization and attribute relevance analysis.
6. Explain the principle of association rule mining. What is multilevel association rules? Describe mining approaches in large databases.
7. What is classification and its types? How do you prepare the data for classification and prediction? Compare different classification approaches.
8. Explain neural network approach to cluster analysis. What is outlier? Explain statistics based out their deflection. Compare the performance with other similar schemes.
9. Describe spatial databases. How mining is performed? Discuss spatial data cube constructions and spatial OLAP.
10. Write short notes on :
 - (a) Sequential pattern mining.
 - (b) Text data analysis and information retrieval.