

MCA 5th Semester
MS – 31

DATA WAREHOUSING AND DATA MINING

- Q.1 (a) Define the following terms with suitable examples: 12
(i) Data Warehouse (2) Data Marts (3) Data Cubes (4) HOLAP
- (b) Differentiate between OLAP and OLTP servers. 8
- Q.2 (a) Write a note on the evolution of data warehousing and discuss the advantages and limitations in detail. 10
- (b) Explain the architecture and design techniques of data warehousing. 10
- Q.3 (a) Explain the various presentation techniques used for visualization of discovered pattern. 10
- (b) Explain the five primitives for specifying the data mining tasks. 10
- Q.4 (a) How is a Data Warehouse different from a database? How are they similar? 10
- (b) Describe the differences between the following architectures for data integration of data mining system with a database or data warehouse system: 10
(i) Nor coupling (ii) Loose coupling
(iii) Semitight coupling (iv) Tight coupling
- Q.5 What is Dirty Data? How is data cleaned? Explain data integration and transformation also. 20
- Q.6 (a) Describe why concept-hierarchies are useful in data mining. Briefly define the following concept hierarchies with example: 15
(a) Schema-hierarchies (b) Set grouping hierarchies
(c) Operation derived hierarchies (d) Rule based hierarchies
- (b) Explain Data Reduction 5
- Q.7 (a) Explain Mining association rules in large databases. 15
- (b) Discuss the concept of clustering in data mining. 5
- Q.8 Write short notes on the following: 20
(a) Data Warehouse Management (b) Bayesian Classification
(c) Importance of Data Mining (d) Constraint-based association Mining

MCA 5th Semester
MS – 32

C SHARP (C#) PROGRAMMING

- Q.1 (a) What is the initial object system? Explain the utility of next generation series.
(b) Write a program to multiply two matrixes.
- Q.2 Write short notes on the following:
(a) Struct type (b) String type (c) Reference type (d) Delegates
- Q.3 Differentiate the following:
(a) Boxing and Un-boxing conversions (b) Standard and User-defined conversions.
- Q.4 (a) What is Exception Handling? How is it implemented in C#? Explain with example.
(b) What are the constructor and destructors? Explain with example.
- Q.5 What are the various control statements in C#? Explain with examples.
- Q.6 (a) Discuss run-time polymorphism. How is implemented in C#?
(b) What is method overriding?
- Q.7 Describe the following:
(a) Code access security (b) Conditional Complication
(c) Standard Permissions (d) Modifiers Class
- Q.8 (a) What is an Interface? Discuss interface mapping.
(b) Explain Interface Re-implementations.

MCA 5th Semester
MS – 33

ADVANCE COMPUTER ARCHITECTURE

- Q.1 (a) Explain Flynn's classification for various architectures. 10
(b) Explain various trade offs in Scalability Analysis. 10
- Q.2 (a) Draw Diagram for explaining difference between static and dynamic dataflow computer. 10
(b) Explain multithreading and compare it with multiprocessing. 10
- Q.3 Describe different page replacement policies in detail with examples. 20
- Q.4 (a) Compare super scalar and super pipeline design. 10
(b) Explain instruction pipelining 10
- Q.5 Draw and explain direct associative, set associative and sector mapping cache memory system. Also discuss cache coherence problem. 20
- Q.6 Write short notes on the following:
(a) Crossbar Networks (b) Bernstein Conditions
(c) Flow dependency and Antidependency (d) Pipeline stalling. 20
- Q.7 Explain the following terms:
(a) Wormhole Routing (b) Virtual Networks
(c) Deadlock and Virtual Channels
- Q.8 Write short notes on the following: 20
(a) VLIW Architecture (b) CRISC Architecture

MCA 5th Semester
MS – 34

High Speed Network (New)

- Q.1 (a) Describe layered protocol architecture of gigabit ethernet.
(b) Explain frame format of bluetooth (IEEE 802.15).
- Q.2 (a) Explain different layers in IEEE 802.15 bluetooth architecture.
(b) Describe architecture and overview of storage area network.
- Q.3 Compare features, frame format and architecture of Wireless LAN (802.11) and Broadband Wireless (802.16).
- Q.4 (a) Explain ports and different class of service in fibre channel.
(b) Compare GSM and CDMA mobile network. Also discuss GPRS.
- Q.5 Explain routing and frame format of frame relay. Also discuss protocol architecture.
- Q.6 (a) Compare IPV4 and IPV6 type of internet protocols.
(b) Describe cell switching and VLAN in ATM networks.
- Q.7 (a) Explain TCP connection management process in internet.
(b) Describe and compare OSPF and BGP routing technique in Internet Protocol.
- Q.8 Write short notes on the following:
(a) Voice over IP (b) DNS (c) Video Compression