

**M.Sc. DEGREE EXAMINATION —  
DECEMBER, 2019.**

Second Year

Computer Science

**DISTRIBUTED SYSTEM**

Time : 3 hours

Maximum marks : 75

**PART A — (5 × 5 = 25 marks)**

Answer any FIVE questions.

1. What is meant by Distributed System?
2. List out any five Challenges of Distributed Data.
3. What is the advantages of Data Fragmentation?
4. Why do we need concurrency control?
5. Write any three Examples based on Client/Server model?
6. How Distributed Transparency works?
7. What is meant by replications? Give example.

PART B — (5 × 10 = 50 marks)

Answer any FIVE questions.

8. Describe about Distributed Database Primitives.
9. Explain types of Networks.
10. Describe in detail about Distributed Resource management.
11. Explain network synchronization in distributed system.
12. Discuss e-mail server with example.
13. Explain the levels of distributed database.
14. Discuss about network interconnections.

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**PG-583**

**MSC-12**

**M.Sc. (CS) DEGREE EXAMINATION —  
DECEMBER, 2019.**

**Second Year**

**ADVANCED WEB PROGRAMMING**

**Time : 3 hours**

**Maximum marks : 75**

**PART A — (5 × 5 = 25 marks)**

**Answer any FIVE questions.**

1. Discuss the steps involved in JDBC connectivity.
2. What are Servlets? Explain the task involved in servlets.
3. Differentiate between AWT and Swing.
4. Write a note on Beans persistence.
5. Mention different types of JDBC.
6. Write short notes on Cookies.
7. Discuss about Web server.

PART B — (5 × 10 = 50 marks)

Answer any FIVE questions.

8. Explain in detail about multi tier applications.
9. Explain the lifecycle of applet.
10. Explain the rules for writing a Java Bean class.
11. List and explain the different types of Enterprise Beans.
12. Explain in detail about Remote Method Invocation.
13. What are the lifecycle phases of JSP?
14. What is JDBC driver? Explain the types of JDBC drivers in detail.

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**PG-584**

**MSC-13**

**M.Sc. DEGREE EXAMINATION —  
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**Second Year**

**Computer Science**

**OPERATING SYSTEM**

**Time : 3 hours**

**Maximum marks : 75**

**SECTION A — (5 × 5 = 25 marks)**

**Answer any FIVE questions.**

1. Write down the Characteristics of Mainframe Systems.
2. Write about the various Operations on Processes.
3. Swapping - Explore.
4. Explain the role of Paging in Memory Management.
5. What is I/O Hardware in I/O Systems? Elucidate.
6. Explain the Functions of Disk Management in simple words.
7. Describe the File System Structure.

SECTION B — (5 × 10 = 50 marks)

Answer any FIVE questions.

8. Discuss the System Components in Operating System Structures.
  9. List out and explain the Operating System Services in detail.
  10. What is Scheduling algorithm? Explain any one Scheduling algorithm with example?
  11. Describe the steps involved in the Page replacement algorithm.
  12. Illustrate the Disk Scheduling with any one of its Algorithms.
  13. How can the Files be accessed? Highlight the Methods in accessing it.
  14. Explain the Space Allocation Methods of File.
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**PG-585**

**MSC-14**

M.Sc. DEGREE EXAMINATION –  
DECEMBER, 2019.

Second Year

Artificial Intelligence

COMPUTER SCIENCE

Time : 3 hours

Maximum marks : 75

PART A — (5 × 5 = 25 marks)

Answer any FIVE questions.

1. Write short note on Artificial intelligence.
2. Explain about problem solving in AI.
3. Write short note on Unification algorithm in propositional logic.
4. What is reasoning with default information?
5. Differentiate forward versus backward chaining.
6. Explain about Machine Learning.
7. Describe Planning with State space search.

PART B — (5 × 10 = 50 marks)

Answer any FIVE questions.

8. Write an elaborate note on Applications of Artificial intelligence.
  9. Explain in detail about Alpha beta pruning.
  10. Write about Knowledge Representation in AI?
  11. Discuss about First order Predicate Logic in detail.
  12. Write about Support Vector machine algorithm in detail.
  13. Describe about Artificial Neural Networks.
  14. Discuss about Planning with Graphics and Propositional Logic.
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**PG – 586**

**MSC-15**

**M.Sc. DEGREE EXAMINATION —  
DECEMBER, 2019.**

**Second Year**

**Computer Science**

**NETWORK SECURITY**

**Time : 3 hours**

**Maximum marks : 75**

**PART A — (5 × 5 = 25 marks)**

**Answer any FIVE questions**

1. Elaborate on OSI Security Architecture.
2. Describe about Model for Network Security.
3. Describe in detail about Public Key Cryptography.
4. Write about SSL and TLS.
5. Explain Basic concepts of SNMP Protocol.
6. Write about Distributed Denial of Service Attacks.
7. Why do we need Password Management? How do you maintain it?

PART B — (5 × 10 = 50 marks)

Answer any FIVE questions.

8. Write short note on Security Attacks.
  9. Write about Security Services in briefly.
  10. Explain Secure Hash Functions and HMAC.
  11. Briefly discuss S/MIME.
  12. Discuss about IP Security Architecture.
  13. What are the Common Criteria for Information Technology Security Evaluation?
  14. Explain Virus Countermeasures.
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