PG-A-1538   **MSC–11X**

P.G. DEGREE EXAMINATION – JULY, 2022.

Computer Science

(CY 2020 & AY 2020 Batches onwards)

Second Year

DISTRIBUTED SYSTEMS

Time : 3 hours   Maximum marks : 70

PART A — (5 × 5 = 25 marks)

Answer any FIVE questions out of Eight questions in 300 words.

All questions carry equal marks.

1. List out the Advantages and Disadvantages of Distributed System.

2. Write short notes on significance of Distributed Data.

3. State the differences between Partition and Allocation.

4. Write about Data Flow System.

5. Differentiate file server and printer server.

6.   Discuss about network interconnections.

7.   Write the advantages of Data Fragmentation.

8.   What is meant by data replication? Give example.

PART B — (3 × 15 = 45 marks)

Answer any THREE questions out of Five questions in
1000 words.

All questions carry equal marks.

9.   Explain briefly about the types of networks.

10.   How to manage the distributed resources? Explain
it with example.

11.   Explain in detail about database decision trees
with suitable diagram.

12.   Describe in detail about Client-Server
communication.

13.   Explain the levels of Distributed Database.

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PG-A-1540	**MSC–13X**

P.G. DEGREE EXAMINATION – JULY, 2022.

Computer Science

(From CY – 2020 onwards)

Second Year

OPERATING SYSTEM

Time : 3 hours　　　　　　　Maximum marks : 70

PART A — (5 × 5 = 25 marks)

Answer any FIVE questions out of Eight questions in 300 words.

All questions carry equal marks.

1. What is operating system? What are functions of operating system?

2. What are the various scheduling criteria for CPU scheduling?

3. Define Deadlock. What are the conditions under which a deadlock situation may arise?

4. Explain about advantages and disadvantages of paging. And Explain difference between paging and segmentation.

5. Write the functions of Disk Management.

6. Describe the File System Structure.

7. Define the components of LINUX system.

8. Compare DOS, UNIX and LINUX.

PART B — (3 × 15 = 45 marks)

Answer any THREE questions out of Five questions in 1000 words.

All questions carry equal marks.

9. List out and explain the Operating System Services in detail.

10. Explain FCFS scheduling algorithm with example.

11. Explain how paging supports virtual memory. With neat diagram explain how logical address is translated into physical address.

12. What is Disk Scheduling? Illustrate with any one of its Algorithm.

13. Explain in detail the memory management in LINUX system.

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PG-A-1541   MSC–14X

P.G. DEGREE EXAMINATION – JULY, 2022.

Computer Science

(From CY 2020 onwards)

Second Year

ARTIFICIAL INTELLIGENCE

Time : 3 hours   Maximum marks : 70

PART A — (5 × 5 = 25 marks)

Answer any FIVE questions each in 300 words.

1. List down the characteristics of intelligent agent.

2. Write short notes on linear space for searching.

3. Illustrate the use of first-order logic to represent knowledge.

4. Write the decision tree learning algorithm.

5. What are the elements of prepositional logic?

6. What are Bayesian networks? Give an example.

7. Give the structure of an agent in an environment.

8. Differentiate forward and backward reasoning.

PART B — (3 × 15 = 45 marks)

Answer any THREE questions each in 1,000 words.

9.   Explain briefly the various problem characteristics.

10. How many types of informed search method are in artificial intelligence? Explain any one.

11. How categories are useful in knowledge representation?

12. What is reinforcement learning? Explain.

13. Discuss in detail about Machine learning.

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P.G. DEGREE EXAMINATION – JULY, 2022.

Computer Science

(From CY – 2020 onwards)

Second Year

NETWORK SECURITY

Time : 3 hours   Maximum marks : 70

PART A — (5 × 5 = 25 marks)

Answer any FIVE questions each in 300 words.

1. Write short notes on Security services.

2. What are the two basic functions used in encryption algorithms?

3. What is S/MIME? Explain.

4. What services are provided by IPsec?

5. List three design goals for a firewall.

6. What is a digital signature? Explain.

7. What entities constitute a full-service Kerberos environment?

8. What is the difference between an SSL connection and an SSL session?

PART B — (3 × 15 = 45 marks)

Answer any THREE questions each in 1,000 words.

9. List and briefly define categories of security mechanisms.

10. Discuss in detail about three uses of a public-key cryptosystem.

11. What is a message authentication code? Explain.

12. What are the basic approaches to bundling Security Associations? Explain.

13. What are two common techniques used to protect a password file? Explain.

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