VINAYAKA MISSIONS RESEARCH FOUNDATION
(Deemed to be University)
M.E -DEGREE EXAMINATIONS - FEB-2022
COMPUTER SCIENCE AND ENGINEERING
Third /Fifth Semester
ADVANCED OPERATING SYSTEMS
(Candidates admitted under 2017 Regulations-CBCS)

Time : Three Hours   Maximum Marks:100 Marks

Answer **ALL** questions
Part-A (10 x 2 =20 Marks)

1   Illustrate the virtual machine approach.

2   How a monitor can helped in process synchronization?

3   Draw the architecture of distributed system.

4   Mention the objectives in Byzantine Agreement problem.

5   How caching is used in distributed file system?

6   What are the types of load distributing algorithm?

7   Differentiate forward and backward error recovery.

8   Mention the phases involved in non-blocking commit protocol.

9   Write about notes about functions in test and set instruction.

10 List out the requirements of a database operating system.

PART-B (5 x 16 = 80)

11 a.   Give brief notes about communicating sequential process and drawbacks.
OR
b.   Describe about deadlock avoidance algorithm.

12 a.   a) Explain about issues in deadlock detection resolution.
b) What are control organizations for distributed deadlock detection?
OR
b.   Explain about Token based algorithms.

13 a.   Describe the architecture and motivation of distributed shared memory.
OR
b.   Describe about the design issues of distribute shared memory.

14 a.   Write brief notes about various phases of rollback recovery algorithms.
OR
b.   Illustrate about two phase commit protocol in fault tolerance.

15 a.   a) Write brief notes about design issues of memory management.
b) Explain about MACH kernel.
OR
b.   Explain about Optimistic algorithms in concurrency control.

****

VINAYAKA MISSIONS RESEARCH FOUNDATION
(Deemed to be University)
M.E -DEGREE EXAMINATIONS - FEB-2022
COMPUTER SCIENCE AND ENGINEERING
Second Semester
DATABASE TECHNOLOGY
(Candidates admitted under 2017 Regulations-CBCS)

Time : Three Hours   Maximum Marks:100 Marks

Answer **ALL** questions
Part-A (10 x 2 =20 Marks)

1   What are the advantage and disadvantage of distributed database?
2   List out the rules of DDBMS.
3   Differentiate between OODB and relational DB.
4   What is the use of group by clause?
5   Define data warehousing.
6   Describe mobile connectivity.
7   What is functional dependency?
8   What is called mirroring?
9   Differentiate Information system and database system.
10   What do you mean by image search?

PART-B (5 x 16 = 80)

11 a.   What is meant by transaction? Explain in detail about transaction processing.
OR
   b.   Discuss in detail the architecture of distributed databases

12 a.   Explain multi version locks with an example.
OR
   b.   Explain the concurrency techniques in OODB.

13 a.   Write a detailed note on data mining.
OR
   b.   Illustrate different types of schedules are acceptable for recoverability.

14 a.   Write short notes on database tuning.
OR
   b.   Describe the structure of multimedia databases.

15 a.   Explain briefly about text databases.
OR
   b.   Give XML representation of bank management system and also explain about Document Type Definition and XML schema.

****

VINAYAKA MISSIONS RESEARCH FOUNDATION
(Deemed to be University)
M.E -DEGREE EXAMINATIONS - FEB-2022
COMPUTER SCIENCE AND ENGINEERING
Third/Fifth Semester
ELECTIVE - AD HOC NETWORKS
(Candidates admitted under 2017 Regulations-CBCS)

Time : Three Hours   Maximum Marks:100 Marks

Answer **ALL** questions
Part-A (10 x 2 =20 Marks)

1
> List the high and low frequency bands in the electromagnetic spectrum.

2
> What is wireless sensor network?

3
> What is the approach used to find link stability in ABR?

4
> Based on routing information update mechanism how the routing protocols are classified?

5
> What is data aggregation?

6
> What is the CDMA and TDMA?

7
> What are the two mechanism for location discovery?

8
> What is fault tolerance?

9
> List the services provided by IEEE802.11

10
> Define wireless Mesh network.

PART-B (5 x 16 = 80)

11 a.
> Explain the applications areas of ad hoc networks.

OR

b.
> List the important goals of designing a MAC protocol for ad hoc wireless networks.

12 a.
> Discuss table driven protocols with examples.

OR

b. Explain the types of ad hoc network routing protocols based on routing information update mechanism.

13 a.
> Write notes on Dynamic Energy and power management

OR

(P.T.O)

b. Explain about the MAC protocol in WSN.

14 a. Write notes on triangulation

OR

b. Briefly explain about the in WSN routing.

15 a. Explain the contention based protocols with scheduling and reservation in detail.

OR

b. How is scheduling mechanism achieved in distributed wireless ordering protocol? Explain in detail. How are Information symmetry and perceived collisions handled?

****

Sl.No. 3023

VINAYAKA MISSIONS RESEARCH FOUNDATION
(Deemed to be University)
M.E -DEGREE EXAMINATIONS - FEB-2022
COMPUTER SCIENCE AND ENGINEERING
Third/Fifth Semester
ELECTIVE - MOBILE APPLICATION DEVELOPMENT
(Candidates admitted under 2017 Regulations-CBCS)

Time : Three Hours   Maximum Marks:100 Marks

Answer **ALL** questions
Part-A (10 x 2 =20 Marks)

1   Difference between Verification and Validation?

2   Give the Advantages and Disadvantages for Mobile Application?

3   Give the characteristics involved in mobile devices?

4   What is OWASP?

5   Compare Web Access for Novell iFolder 2.x and 3.

6   What are the issues in social media networking.

7   How do you establish the android development environment?

8   Why does Google maps need WiFi?

9   What are the datas present in Address Book?

10 What are the frameworks present in touch framework?

PART-B (5 x 16 = 80)

11 a.   What is Requirement Gathering? Explain in detail.
OR
   b.   Explain in detail the role of simulators and Emulators in Mobile Application?

12 a.   Discuss various user interfaces in mobile application.
OR
   b.   Explain the hardware constraints involved in mobile design.

13 a.   Explain with diagram the mobile cloud architecture.
OR
   b.   Explain in detail about interactive multimedia application.

14 a.   Explain how to interact with UI with suitable example.
OR
   b.   Explain in detail about deployment and its tools.

15 a.   Explain Data Persistence using core data.
OR
   b.   Discuss briefly the integration of calendar and address book with social media application.

****

VINAYAKA MISSIONS RESEARCH FOUNDATION
(Deemed to be University)
M.E -DEGREE EXAMINATIONS - FEB-2022
COMPUTER SCIENCE AND ENGINEERING
Third Semester
ELECTIVE - MOBILE COMPUTING
(Candidates admitted under 2017 Regulations-CBCS)

Time : Three Hours   Maximum Marks:100 Marks

Answer **ALL** questions
Part-A (10 x 2 =20 Marks)

1 What is meant by antenna?

2 List out the advantages and disadvantages of SDMA.

3 Give some applications of satellites.

4 Define DAB.

5 List out the disadvantages of WLAN.

6 What is meant by roaming?

7 What are the requirements of mobile network layer?

8 What is meant by triangular routing?

9 What are the classical improvements?

10 What are the features of wireless session protocols?

PART-B (5 x 16 = 80)

11 a. Briefly explain the following concepts
   i) PRAM
   ii) Polling
   iii) Inhabit Sense Multiple Access

OR

b. Compare and contrast the concept of S/T/F/CDMA.

12 a. Briefly explain the system architecture of DECT.

OR

b. Narrate in details of the functioning of GPRS.

13 a. Narrate the service offered by IEEE802.11 standard

OR

b.   Briefly explain the concept of MAC frame.

14 a. What are the requirements used in mobile IP?

OR

b.   Write short notes on
a. Cellular IP.
b. Hawaii.
c. Hierarchical mobile IPv6.

15 a.   Narrate in detail about push architecture.

OR

b.   Describe the operation of the window flow control mechanism
****

Sl.No. 3052

VINAYAKA MISSIONS RESEARCH FOUNDATION
(Deemed to be University)
M.E -DEGREE EXAMINATIONS - FEB-2022
COMPUTER SCIENCE AND ENGINEERING
Fourth Semester
INFORMATION SECURITY
(Candidates admitted under 2017 Regulations-CBCS)

Time : Three Hours   Maximum Marks:100 Marks

Answer **ALL** questions
Part-A (10 x 2 =20 Marks)

1   State the bottom-up approach to security implementation with its disadvantages.
2   What are the types of security policy?
3   What are the types of attacks in a cryptosystem?
4   Mention the various components of X.509.
5   What is an Access Control list?
6   List the comparison Groups & Roles.
7   Define computer virus.
8   How do you define flaw elimination?
9   What you meant by anticipating Attacks.
10   Write short notes on group access in user security.

PART-B (5 x 16 = 80)

11 a.   Explain about Clark- Wilson Integrity Model.
OR
  b.   Discuss the various types of Access control.

12 a.   Explain in detail about Data Encryption Standard (DES) algorithm with neat sketch.
OR
  b.   Explain about the cryptographic key infrastructures.

13 a.   Explain the following.
        i) Identity management
        ii) Files & Objects

OR

  b.   Explain about Information flow and Confinement problem.

14 a.   Explain in details about NRL taxonomy.
OR
  b.   What are the different types of log Sanitization? Explain.

15 a.   Explain in detail about the analysis of network infrastructure.
OR
  b.   Explain the concept of process in system security.

****