S.No. 8217 P 16 CS 41

(For candidates admitted from 2016–2017 onwards)

M.Sc. DEGREE EXAMINATION, APRIL 2022.

Computer Science

CLOUD COMPUTING

Time : Three hours Maximum : 75 marks

SECTION A — (10 × 2 = 20)

Answer ALL questions.

1. Highlight the importance of the term cloud computing.

2. Bring out the difference between the private and public cloud.

3. What is virtualization in cloud computing?

4. What is business on demand?

5. How important is the platform as a service?

6. Define hybrid cloud?

7. How Hadoop Map Reduce works?

8. What is Job Tracker in Hadoop?

9. What is a grid system?

10. What is QOS?

SECTION B — (5 × 5 = 25)

Answer ALL questions, choosing either (a) or (b).

11. (a) What are the components of cloud computing?

Or

(b) Discuss the integration methodologies in cloud computing.

12. (a) What is virtualization? Explain the different types of virtualization in cloud computing.

Or

(b) How would you secure data for transport in the cloud?

13. (a) What do you understand about Hybrid Cloud? Explain in detail.

Or

(b) What is the difference between IaaS and PaaS in cloud?

14. (a) Write short notes on Dynamic ICT Services.

Or

(b) Explain what is "Map" and what is "reducer" in Hadoop?

15. (a) Write short notes on Grid Computing.

Or

(b) Discuss the performance related issues of HPC in cloud?

SECTION C — (3 × 10 = 30)

Answer any THREE questions.

16. Explain different models for deployment in cloud computing.

17. What is the usage of virtualization platform in implementing in cloud?

18. Give the best example of open source cloud computing.

19. Mention what are the main configuration parameters that user need to specify to run Map Reduce Job?

20. Explain the purpose of a SLA?

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S.No. 8218 P 16 CS 42

(For candidates admitted from 2016–2017 onwards)

M.Sc. DEGREE EXAMINATION, APRIL 2022

Computer Science

WIRELESS SENSOR NETWORKS

Time : Three hours Maximum : 75 marks

PART A — (10 × 2 = 20)

Answer ALL questions.

1. What is meant by wireless sensor networks?
2. Define multihop communication
3. Write short note on actuator,
4. What is meant by sink mobility?
5. What is contention-based protocol?
6. Write about S-MAC.
7. What is propagation delay?
8. Write about active badge.

9. What are the different types of motes?

10. List the components of node level simulators

PART B — (5 × 5 = 25)

Answer ALL questions, choosing either (a) or (b).

11. (a) Explain characteristics requirements.

Or

(b) Explain the mechanism that will form typical parts of wireless sensor networks.

12. (a) Explain microcontroller energy consumption.

Or

(b) Write about dynamic energy and power management.

13. (a) Explain assignment methods for MAC address.

Or

(b) Describe mediation device protocol,

14. (a) How increase accuracy and estimate drift? Explain.

Or

(b) Discuss in detail about trilateration and triangulation.

15. (a) Write short notes on Node level simulators

Or

(b) Write short notes on Programming challenges in sensor network.

PART C — (3 × 10 = 30)

Answer any THREE questions.

16. What are the enabling technologies of wireless sensor networks? Explain.

17. Explain in detail about communication device in hardware components

18. Explain physical layer and transceiver design consideration in wireless sensor networks.

19. Elaborate light weight time consideration synchronization protocol.

20. Explain in detail the node level software platform.

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20. Explain about the behaviour models in UML. Also prepare an activity diagram for computing a restaurant bill. There should be a charge for each delivered item. The total amount should be subject to tax. There is a service charge of 18% for groups of six or more and 10% for smaller groups. Any coupons and gift certificates submitted by the customer should be subtracted.

S.No. 8201 **P 16 CS 21/P 16 IT 13**

(For candidates admitted from 2016–2017 onwards)

M.Sc. DEGREE EXAMINATION, APRIL 2022.

Computer Science/Information Technology

OOAD AND UML

Time : Three hours Maximum : 75 marks

SECTION A — (10 × 2 = 20)

Answer ALL questions.

1. What is Object Orientation?

2. Write the importance of Rapid Application Development (RAD).

3. Define Dynamic model.

4. Write a short note on generalization.

5. Define Aggregation.

6. Write the two kinds of Object Relationships.

7. What do you mean by Object Constraint Language?

8. Define Cohesion.

9. Define Packages.

10. Write the types of UML models.

SECTION B — (5 × 5 = 25)

Answer ALL questions, choosing either (a) or (b).

11. (a) Briefly explain the object relationships and association.

Or

(b) Explain aggregations and object containment.

12. (a) Write the importance of Model building for a software system.

Or

(b) Explain the methodology described by Jacobson et al.

13. (a) Explain the class responsibility for identifying attributes and methods.

Or

(b) Write the importance of Use-Case model.

14. (a) Explain the Object-Oriented Design process.

Or

(b) Write about coupling and cohesion among objects.

15. (a) Explain about the Architectural models in UML.

Or

(b) Draw use case diagram for an 'Online admission system'.

SECTION C — (3 × 10 = 30)

Answer any THREE questions.

16. Explain the various phases of Software Development Life Cycle in detail with diagram.

17. Discuss in detail about the UML class diagram.

18. Draw a Use-Case diagram incorporating Object Relationship analysis for a practical situation and explain.

19. Describe the user interface layer in the software designing.