QP CODE: 25804495

25804495

Reg No : .....

Name : .....

INTEGRATED M.Sc DEGREE EXAMINATION, OCTOBER 2025

Ninth Semester

INTEGRATED M.Sc COMPUTER SCIENCE-ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

ELECTIVE - ICSA9ED2 - IOT ANALYTICS

2020 ADMISSION ONWARDS

021F3ADE

Time: 3 Hours Weightage: 30

Part A (Short Answer Questions)

*Answer any **eight** questions.*

*Weight **1** each.*

1. What is a smart home?
2. What is the role of data visualization in IoT analytics?
3. What is Bigdata?
4. What is the primary benefit of using the cloud for IoT analytics?
5. What is meant by "elastic" in the context of elastic analytics?
6. What is the purpose of data cleaning?
7. Name one commonly used technique for collecting data in IoT systems.
8. How does feature engineering contribute to the effectiveness of predictive analytics?
9. Define predictive maintenance in IoT using deep learning.
10. What is the role of data relationships in linked analytical datasets?

(8×1=8 weightage)

Part B (Short Essay/Problems)

*Answer any **six** questions.*

*Weight **2** each.*

11. What is the role of machine learning and AI in processing and analyzing IoT data? How do these technologies help in deriving insights from IoT-generated Big Data?
12. Write a short note on Waziup software platform.
13. Explain how network topology can affect the choice of IoT protocols used in a deployment scenario, providing examples.

14. Name one AWS service used for real-time data analytics in IoT.

15. What role does AWS IoT Analytics play in IoT data processing?

16. How does big data help in predictive analysis of IoT systems?

17. Write the Applications of Machine learning in IoT.

18. Explain how can cloud computing solutions optimize costs for IoT data management.

(6×2=12 weightage)

Part C (Essay Type Questions)

*Answer any **two** questions.*

*Weight **5** each.*

19. Explain about IoT devices.

20. Discuss the role of Apache Spark in processing IoT data for analytics. Highlight its scalability, speed, and support for machine learning.

21. Discuss the challenges faced during validation of IoT devices.

22. Discuss various strategies to organize large datasets for analytics.

(2×5=10 weightage)