



QP CODE: 25047547



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Reg No :

Name :

M.Sc DEGREE (CSS) EXAMINATION, NOVEMBER 2025

Third Semester

M.Sc APPLIED ELECTRONICS

Core Course - EL020303 - INTRODUCTION TO IOT AND THE ARDUINO

2019 ADMISSION ONWARDS

FACF9626

Time: 3 Hours

Weightage: 30

Part A (Short Answer Questions)

*Answer any **eight** questions.*

Weight 1 each.

1. Explain the working of a displacement sensor.
2. Explain some commonly measured quantities of a sensor(Stimulus and Quantity).
3. Explain soft actuators.
4. What are the Input voltages that supported by Arduino?
5. What are the merits of I/O Ports in Arduino?
6. Explain the working of analog pin in Arduino ?
7. Explain the advantages of Arduino IDE?
8. Explain the steps to develop a program in Arduino IDE?
9. What do you meant by Software define network ?
10. Discuss the data security issues in IoT Development.

(8×1=8 weightage)

Part B (Short Essay/Problems)

*Answer any **six** questions.*

Weight 2 each.

11. Briefly describe the working and applications of a Rely Switch.
12. Explain Timer 0 of Arduino.
13. Explain the sketch with an example.
14. Write a program to blink led connected to pin 10 & 11 alternatively.
15. Explain any four characteristics of IoT.





16. Explain Request Response Model.
17. Discuss various tools for IoT Applications.
18. Discuss the advantages and disadvantages of application of python in IoT based system.

(6×2=12 weightage)

Part C (Essay Type Questions)

*Answer any **two** questions.*

Weight 5 each.

19. Explain the theory, working and applications of Temperature sensor and ultrasonic sensor.
20. Discuss any 5 built in functions of arduino with a sample program.
21. Explain the physical design of IoT With diagram.
22. Design a ultrasonic sensor based application to transmit distance from object to serial port, with IoT tools.

(2×5=10 weightage)

