QP CODE: 25019625

Reg No : .....

Name : .....

B.Sc DEGREE (CBCS) REGULAR/ IMPROVEMENT/ REAPPEARANCE / MERCY CHANCE EXAMINATIONS, FEBRUARY 2025

Fourth Semester

B.Sc Physics Model II Applied Electronics

Vocational Course - AE4VOT08 - APPLICATIONS OF MICROPROCESSORS

2017 Admission Onwards

9E420643

Time: 3 Hours Max. Marks : 60

Part A

*Answer any **ten** questions.*

*Each question carries **1** mark.*

1. What is transducer?
2. What is the meaning of yellow light in traffic signal?
3. What is the functions of 8255 chip?
4. What is the difference between Microprocessor and Microcontroller?
5. Which is the first microcontroller?
6. List three essential items needed to make up a development systemfor programming microcontrollers.
7. List four features of 8051 Microcontroller.
8. What are register banks in 8051?
9. What is the significance of DPTR?
10. What is the purpose of accumulator?
11. Which bit of the flag register is set when output is zero?
12. What are the functions of P3.7?

(10×1=10)

Part B

*Answer any **six** questions.*

*Each question carries **5** marks.*

13. Write a assembly language programme for generate 1ms delay.
14. Write a assembly language programme to display 00 t0 99 in seven segment display.
15. What are the three types of communication lines (buses) in 8051 bus organization? Explain each.
16. Draw and explain the 8051 Oscillator circuit.
17. Draw and explain internal memory organization in 8051.
18. Draw and explain I/O ports in 8051.
19. How to interface external memory with 8051?
20. Explain different modes of serial communication in 8051
21. What is an interrupts?List various type of interrupts available in 8051 and its usage.

(6×5=30)

Part C

*Answer any **two** questions.*

*Each question carries **10** marks.*

22. Draw and explain stepper motor interface with 8085.What are the applications of stepper motor.
23. How to generate pulse waveform using 8085? Write a programme to generate 1ms pulse.
24. What is timer/counter? What are the registers associated with timer/counter?What are the different modes of operations of timer in 8051. Explain.
25. Draw and explain programming model of 8051.

(2×10=20)