21102882

QP CODE: 21102882

Reg No : .....

Name : .....

B.Sc DEGREE (CBCS) EXAMINATIONS, OCTOBER 2021

Fourth Semester

B.Sc Physics Model II Applied Electronics

Vocational Course - AE4VOT08 - APPLICATIONS OF MICROPROCESSORS

2019 Admission only

0A5AC4EC

Time: 3 Hours Max. Marks : 60

Part A

*Answer any **ten** questions.*

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

1. What are the types of seven segment display?
2. What are the applications of transducer?
3. What is meant ADC?
4. What is microcontroller in simple words?
5. Name two major differences between a microprocessor and microcontroller.
6. Which is the first microcontroller?
7. Which data memory control and handle the operation of several peripherals by assigning them in the category of special function registers?
8. Why address bus is unidirectional?
9. What is DPH and DPL in 8051?
10. Which register usually store the output generated by ALU in several arithmetic and logical operations?
11. Which register bank is supposed to get selected if the values of register bank select bits RS1 & RS0 are detected to be '0' & '1' respectively?
12. What is the default value of stack in 8051 once after the system undergoes the reset condition?

(10×1=10)

Part B

*Answer any **six** questions.*

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

13. Write a programme for generate 1ms delay.
14. How to generate pulse waveform using 8085?
15. What is the use of crystal oscillator in 8051 microcontroller? Explain with diagram.
16. Draw and explain internal memory organization in 8051.
17. Explain the different functions of PORT 3.
18. How to interface external memory with 8051?
19. What are the different modes of operations of timer in 8051? Explain.
20. Explain different modes of serial communication in 8051.
21. What is an interrupt? What is Interrupt Service Routine? What is meant by interrupt priority?

(6×5=30)

Part C

*Answer any **two** questions.*

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

22. Explain the working of stepper motor. How to interface stepper motor with 8085?
23. Explain with diagrams and assemby language prgramme to control traffic light using 8085.
24. With neat sketch explain the Input/Output port of 8051.
25. With neat sketch explain architecture of 8051 microcontroller.

(2×10=20)