QP CODE: 20100902

20100902

Reg No : .....

Name : .....

B.Sc DEGREE (CBCS) EXAMINATION, MARCH 2020

Fourth Semester

B.Sc Physics Model II Applied Electronics

Vocational Course - AE4VOT08 - APPLICATIONS OF MICROPROCESSORS

2017 Admission onwards

ACFF2865

Time: 3 Hours Marks: 60

Part A

*Answer any **ten** questions.*

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

1. What are the applications of transducer?
2. What is the meaning of yellow light in traffic signal?
3. What is the functions of 8255 chip?
4. What is microprocessor in short?
5. What is the difference between Microprocessor and Microcontroller?
6. List three essential items needed to make up a development system for programming microcontrollers.
7. Which general purpose register holds eight bit divisor and store the remainder especially after the execution of division operation?
8. How can change register bank in 8051?
9. What is the purpose of ROM in a microcontroller?
10. What is stack pointer in microcontroller?
11. What are the functions of P3.3?
12. What is the difference between timer and counter in 8051?

(10×1=10)

Part B

*Answer any **six** questions.*

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

13. Write a assembly language programme for generate 5ms delay.

14. Draw and explain autumatic temperature control system.

15. Explain registers in 8051.

16. What are the three types of communication lines (buses) in 8051 bus organization? Explain each.

17. Draw and explain the 8051 Oscillator circuit.

18. Differentiate between Program counter and Data pointer.

19. Draw and explain I/O ports in 8051.

20. Draw and explain how to interface external memory with 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. How to interface seven segment LED display with 8085? Write a programme to display 00 to 99 in seven segment display.

23. How to interface stepper motor with 8085? Explain with assembly language programme.

24. Explain Timer/Counter operation in 8051.

25. Draw and Explain architecture of 8051 microcontroller.

(2×10=20)