QP CODE: 19101443

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Reg No : .....

Name : .....

B.Sc DEGREE (CBCS) EXAMINATION, MAY 2019

Fourth Semester

B.Sc Physics Model II Applied Electronics

Vocational Course - AE4VOT08 - APPLICATIONS OF MICROPROCESSORS

2017 Admission onwards

F9D2AFFA

Maximum Marks: 60 **Time: 3 Hours**

Part A

Answer any **ten** questions.

Each question carries **1** mark.

1. List any two applications of 8051 microcontroller in embedded system.
2. What is transducer?
3. How many pins of the 8255 can be used as the input ports?
4. What is microcontroller in simple words
5. Name two major difference between a microprocessor and microcontroller.
6. Which is the first microcontroller?
7. Define DPTR.
8. What is the purpose of accumulator?
9. What is the use of parity flag?
10. Define SP.
11. What are the functions of P3.6?
12. What is the maximum capability of addressing the off-chip data memory & off-chip program memory in a data pointer?

(10×1=10)

Part B

Answer any **six** questions.

Each question carries **5** marks.

13. Write a programme to control the temperature in a room.
14. Write a programme to generate 0.5ms pulse.
15. What are registers in 8051? Exaplain
16. What is address bus,data bus and control bus in 8051? Explain

17. What is the use of crystal oscillator in 8051 microcontroller?Explain with diagram.

18. Draw and explain internal memory organization in 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 interrupts? 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. How does a 7 segment display work?How to interface seven segment LED display with 8085?

23. How traffic signals work? Darw and explain how to interface traffic light with 8085?

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

25. Draw and Explain Block diagram of 8051 microcontroller

(2×10=20)