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**Question Paper Code: 45405**

B.E. / B.Tech. DEGREE EXAMINATION, AUGUST 2021

Fifth Semester

Electronics and Communication Engineering

14UEC505 – MICROPROCESSORS, MICROCONTROLLERS AND APPLICATIONS

(Regulation 2014)

Duration: 1:45 hour

Maximum: 50 Marks

PART A - (10 x 2 = 20 Marks)

**(Answer any ten of the following questions)**

1. Explain various types of Instructions used in 8085.
2. Draw the HOLD response timing cycle in Minimum mode of 8086.
3. List the six modes of timer.
4. Write an ALP for adding of two numbers and store the result in 2050H in 8051.
5. Give an application for Sensor based 8051 Microcontroller.
6. List the operation modes of 8255.
7. What is need for bitwise instructions in microcontroller and how many ports are bit addressable in 8051 $\mu$ C?
8. What is the significance of EA pin.
9. Draw the interface of DAC with microcontroller.
10. Give the applications of stepper motor.
11. Distinguish between the shift and rotate instructions of 8085.
12. Mention the advantages of using the Direct memory access.

13. List out the flags present in 8086 microprocessor.
14. What are the different types of interrupts supported in 8086?
15. Why interfacing is needed for I/O devices.

PART – B (3 x 10= 30 Marks)

**(Answer any three of the following questions)**

16. Describe the addressing modes of 8085 (10)
17. Enumerate about the architecture of 8086 microprocessor with a block diagram and also explain its functions in detail. (10)
18. Explain with necessary diagrams the operation of 8255 programmable peripheral interface. (10)
19. Describe in detail about 8051 microcontroller memory. (10)
20. Describe the Analog to Digital Conversion (ADC) Interfacing with 8051 (10)