

<b>A-8981</b>
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<b>Sub. Code</b>
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<b>4BCESA2</b>
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**U.G. DEGREE EXAMINATION, NOVEMBER 2019**

**Computer Science**

**Allied – MICROPROCESSORS AND INTERFACING**

**(CBCS – 2014 onwards)**

Time : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 2 = 20)

Answer **all** questions.

1. What is data and address size in 8086?
2. What is a flag? Write the flags of 8086.
3. List the I/O instructions of 8086.
4. What are the operations performed by string instructions?
5. What do you understand by MAX mode?
6. What is Latch?
7. What is the function of a CRT controller?
8. What is the difference between impact type and non impact type printers?
9. List the segment registers of 8086.
10. What is Queue? How queue is implemented in 8086?

**Part B****(5 × 5 = 25)**Answer **all** the questions.

11. (a) Explain the fetch cycle and execute cycle.

Or

- (b) Explain about the EU and BIU of 8086 Micro processor.

12. (a) Explain the use of REP prefix instructions.

Or

- (b) Explain the various instruction formats for ADD instructions of 8086.

13. (a) Explain the organization of 8255 PIC.

Or

- (b) Discuss the 8257 DMA controller.

14. (a) Explain about the floppy disk subsystem.

Or

- (b) Discuss the MODEM.

15. (a) Describe the 80286 protection mechanism.

Or

- (b) Differentiate 80286 and 80386 descriptors.

**Part C** $(3 \times 10 = 30)$ 

Answer any **three** questions.

16. With a neat diagram describe the architecture of 8086 microprocessor.
  17. What are the different types of addressing modes in 8086? Explain with example instructions.
  18. Explain how the USART 8251 can be used for data communication.
  19. Describe in detail about the working principle of a CRT display unit.
  20. Explain in detail about the internal architecture of 80386.
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