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SEAT No. \_\_\_\_\_

No. of Printed Pages : 02

Sardar Patel University  
External Examination

B. Sc. 5<sup>th</sup> Semester (Information & Technology)  
US05CINT06 : Computer Architectures & Microprocessor  
Saturday, 3<sup>rd</sup> November - 2018

Time : 10:00 am to 01:00 pm

Total Marks : 70

**Q.1 Select the correct answer for the following.**

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1. CU stands for \_\_\_\_\_.  
(a) Control Unit (b) Common Unit  
(c) Compact Unit (d) None of these
2. The size of source input SEL A is \_\_\_\_\_ bits.  
(a) 1 (b) 2 (c) 3 (d) 4
3. The operation of deletion in a stack is called \_\_\_\_\_.  
(a) PUSH (b) POP (c) PEEP (d) DISPLAY
4. The \_\_\_\_\_ is incremented after each word that is transferred.  
(a) Address Register (b) Word Count Register  
(c) Control Register (d) All of these
5. when the word count register reaches \_\_\_\_\_, the DMA stops any further transfer and removes its bus request.  
(a) Zero (b) One (c) Two (d) Three
6. The \_\_\_\_\_ holds those parts that are not presently used by the CPU.  
(a) Main Memory (b) Auxiliary Memory  
(c) Secondary Memory (d) Cache
7. An alternative model of tightly coupled microprocessor is called \_\_\_\_\_.  
(a) Distributed Memory (b) Loosely Coupled  
(c) Both A and B (d) None of these
8. In a tightly coupled multiprocessor system, the destination is a \_\_\_\_\_.  
(a) Memory Modules (b) Processor (c) Cross Points (d) None of these
9. The address bus is \_\_\_\_\_.  
(a) Bidirectional (b) Two Way (c) Unidirectional (d) None of these
10. The data bus is \_\_\_\_\_.  
(a) Bidirectional (b) One Way (c) Unidirectional (d) None of these

**Q.2 Answer in short. (Attempt any TEN)**

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1. Explain Magnetic Tape.
2. Define Prefix Notation with example.
3. Define Status Command.
4. Explain ROM.
5. Define Auxiliary memory with example.

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6. Explain Control Register.
  7. Define Operating System.
  8. Explain Microprocessor.
  9. Define High Level Languages.
  10. Explain Flags & Register.
  11. Full form of (i) EPROM (ii) EEPROM
  12. Explain Stack Pointer.
- Q.3** [a] Explain General Register Organization. 5  
 [b] Explain RPN with example. 5
- OR**
- Q.3** [a] Write notes on Components of CPU. 5  
 [b] Explain I/O bus and Interface modules. 5
- Q.4** [a] Explain Binary Multiplication using Register Method. 5  
 [b] Explain Main Memory in detail. 5
- OR**
- Q.4** [a] What is DMA? Explain DMA Transfer. 5  
 [b] Explain Cache Memory with Associative Mapping. 5
- Q.5** [a] Explain Cross Bar Switch in detail. 5  
 [b] Explain Multiport Memory. 5
- OR**
- Q.5** [a] Explain Characteristics of Multiprocessor. 5  
 [b] Explain Multistage Switching Network. 5
- Q.6** [a] Explain Program Counter & Address Bus. 5  
 [b] Explain Memory Classification in detail. 5
- OR**
- Q.6** [a] Explain Multiprocessor Initiated Operation. 5  
 [b] Explain Input Output Devices. 5

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