

**2012**

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**Course : B.C.A. (1<sup>st</sup> YEAR)**

**Paper :1**

**Time : 3 hours**

**Full Marks : 75**

**Candidates are required to give their answers in their**

**own words as far as practicable.**

**the questions are of equal value.**

**Answer any Five questions, including**

**question no. 1 is compulsory.**

**1. Choose the correct answer :**

**(a) A computer is a box full of electronic:**

**(i) Switching device**

**(ii) Chips**

**(iii) Circuits**

**(iv) Register**

**continue**

- (b) The term 'memory' applies to which of the following :**
- (i) Logic**
  - (ii) Storage**
  - (iii) Control**
  - (iv) Input device**
- (c) Linkage between the CPU and the users is provided by :**
- (i) Storage**
  - (ii) Control Unit**
  - (iii) Peripheral devices**
  - (iv) Software**
- (d) Which chips are erasable by ultraviolet rays after removing them from the main Circuit ?**
- (i) EPROM Chips**
  - (ii) EERPOM Chips**
  - (iii) PROM Chips**
  - (iv) All of the above**

**continue**

**(e) Conversion of decimal number  $99_{10}$  to its binary**

**number equivalent to :**

**(i)  $1100011_2$**

**(ii)  $100011_2$**

**(iii)  $1110001_2$**

**(iv)  $1111000_2$**

**(f) Which register holds the intermediate result in ALU ?**

**(i) Instruction Register**

**(ii) Accumulator**

**(iii) Address Register**

**(iv) Program Counter**

**(g) The three sequential function for CPU operations are :**

**(i) decode, fetch execute**

**(ii) execute, decode, fetch**

**(iii) fetch, execute, decode**

**(iv) fetch, decode, execute**

**(h) The circuit that is used for parallel to serial conversion is :**

**(i) decoder**

**(ii) encoder**

**continue**

**(iii) multiplexer**

**(iv) demultiplexer**

**(i) Static RAM stores binary values in :**

**(i) Capacitor**

**(ii) Flip -flop**

**(iii) Register**

**(iv) None of the above**

**(j) Which of the following is a non-impact printer ?**

**(i) Daisy Wheel printer**

**(ii) Drum printer**

**(iii) Laser printer**

**(iv) None of the above**

**2. What is Digital Computer ? Describe about the**

**Different components of Computer.**

**3. (a) What do you mean by microprocessor ? Draw the architecture of Intel 8088 microprocessor.**

**(b) Differentiate between RISC &CISC technology.**

**continue**

4. (a) **What is an algorithms and flow chat ? What are the different symbols used in flow-chart ?**  
(b) **Draw a flow chart to find the largest of three given numbers A, B, and C.**
5. (a) **Draw the block diagram of DMA Controller. Explain its operation.**  
(b) **What is Assembly Language ? Write the differences between Assembler and compiler.**
6. **Describe the roles that RAM and ROM play with in the computer, their main purposes and what distinguishes the two types of memory.**
7. **Differentiate between the followings:**
  - (a) **Impact and Non- Impact Printers.**
  - (b) **Uniprocessor and Multiprocessor.**
  - (c) **Analog, Hybrid and Digital Computers.**
8. (a) **Describe about the basic features of DOS ?**  
**How you create batch file in DOS ?**  
(b) **What do you mean by External &Internal Commands ?**  
**Describe any five each of External and Internal command.**

**Continue**

**9. (a) Why is the binary number system used for computers ?**

**Explain.**

**(b) Subtract the following binary numbers using 2's**

**Compliments representation of negative numbers.**

**(i)  $101101 . 0011 - 100101 . 0001$**

**(ii)  $11011 . 110 - 101 . 001$**

**(iii)  $10111 . 1001 - 11000 . 1101$**

**10. Write short notes on any three of the following :**

**(i) Characteristics & Application of Computer**

**(ii) Management Information System**

**(iii) Evolution of microprocessor**

**(iv) Arithmetic and Logic unit**

**(v) Tele – Conferencing.**

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**Continue for Subsidiary paper.**