





- 6) The memory chip has 14 bit address bus then its capacity is \_\_\_\_\_  
a) 16 KB                      b) 8 KB                      c) 12 KB                      d) 32 KB
- 7) In IC ADC 0804 \_\_\_\_\_ technique is used for conversion of analog data into digital data.  
a) Dual Slope                      b) Single Slope  
c) SAR                      d) Flash
- 8) \_\_\_\_\_ consists of programmable AND gates and OR gates.  
a) PGM                      b) PAL                      c) PROM                      d) PLA
- 9) The data bus capacity of 8085 microprocessor is \_\_\_\_\_ bit.  
a) 8                      b) 32                      c) 16                      d) 12
- 10) \_\_\_\_\_ symbol is used to represent the decision in flow chart.  
a) Oval                      b) Diamond  
c) Parallelogram                      d) Rectangle
- 11) MOV M, C is an example of \_\_\_\_\_ addressing mode.  
a) Register                      b) Immediate  
c) Indirect                      d) Direct
- 12) The width of program counter is \_\_\_\_\_ bit.  
a) 16                      b) 8                      c) 12                      d) 4
- 13) FPGA means \_\_\_\_\_  
a) Forward Programmable Gate Array  
b) Field Programmable Gate Array  
c) Field Parallel Gate Array  
d) Forward Parallel Gate Array
- 14) IC DAC 0808 has \_\_\_\_\_ bit digital inputs.  
a) 12                      b) 10                      c) 9                      d) 8

2. Attempt **any seven** of the following :

14

- 1) Give the basic difference between RAM and ROM.
- 2) Define Accuracy and settling time for DAC.
- 3) Explain in brief the concept of programmable logic array.

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- 4) Explain the importance of Program Counter in 8085.
  - 5) Enlist different types of non volatile semiconductors.
  - 6) Write the role of ALE signal in 8085 based system.
  - 7) Enumerate the action with respect to status signals  $S_0$  and  $S_1$  of 8085 processor.
  - 8) State four machine control group of instructions.
  - 9) Give the maximum memory access capacity of 8085. State the reason for the same.
3. A) Attempt **any two** of the following : **10**
- 1) Explain in brief the concept of FPGA.
  - 2) Compare IO mapped IO scheme with memory mapped IO scheme.
  - 3) Find out the analog voltage for binary weighted DAC if 0 = 0V and 1 = 5V for digital input.  
1) 1101                      2) 1001
- B) State the salient features of 8085 processor. **4**
4. Attempt **any two** of the following : **14**
- 1) What is tri-state logic ? Explain working of bidirectional tri-state buffer IC 74245.
  - 2) What is instruction ? Classify instruction set of 8085 processor according to the functional category with suitable examples.
  - 3) With suitable diagram explain the working principle of R-2R ladder network DAC.
5. Attempt **any two** of the following : **14**
- 1) Explain the working principle of SAR type ADC.
  - 2) Draw the internal block diagram of 8085 processor and explain ALU with Accumulator and flag register.
  - 3) Write assembly language program to transfer the block of 10 memory location starting from 2050, to memory location 2070 with flow chart.

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