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DF-3004

Second Year B. Sc. (Sem. III) Examination

March / April - 2016

Electronics for Computer Science : Paper - IV

(Microprocessor Circuit & Application)

Time : **2** Hours] [Total Marks : **50**

Instructions :

(1)

નીચે દર્શાવેલ ☛ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fillup strictly the details of ☛ signs on your answer book.

Name of the Examination :

☛ S. Y. B. Sc. (SEM. 3)

Name of the Subject :

☛ ELECTRONICS FOR COMPUTER SCIENCE - 4

☛ Subject Code No. : 3 0 0 4 ☛ Section No. (1, 2,.....) : 1,2,3

Seat No. :

Student's Signature

(2) All questions are compulsory.
(3) Symbols and terminology used here have their usual meanings.
(4) Scientific calculator is allowed.
(5) Mobile (Cell phones) are strictly prohibited.

Q. 1 to 12 Multiple choice questions : (1 mark)

Q. 13 to 22 Multiple Choise Questions : (2 marks)

Q. 23 to 28 Multiple Choice Questions : (3 marks)

O.M.R. Sheet ભરવા અંગેની અગત્યની સૂચનાઓ આપેલ *O.M.R. Sheet*ની પાછળ છાપેલ છે.

Important instructions to fillup O.M.R. Sheet is given on back side of the provided O.M.R. Sheet.

1 Single-bit indicators that may be set or cleared to show the results of logical or arithmetic operations are the :

(A) decisions

(B) flags

(C) registers

(D) monitors

2 The technique of assigning a memory address to ech I/O device in the computer system is called :

(A) wired I/O

(B) memory-mapped I/O

(C) ported I/O

(D) dedicated I/O

3 When was the first 8-bit microprocessor introduced ?

(A) 1985

(B) 1969

(C) 1974

(D) 1979

4 Which of the following buses is primarily used to carry signals that direct other ICs to find out what type of operation is being performed ?

(A) address decoder bus

(B) data bus

(C) control bus

(D) address bus

5 What type of circuit is used at the interface point of an input port ?

(A) None of these

(B) decoder

(C) latch

(D) tristate buffer

6 Because microprocessor CPUs do not understand mnemonics as they are, they have to be converted to _____.

(A) All of these

(B) hexadecimal machine code

(C) binary machine code

(D) assembly language

7 The software used to drive microprocessor-based systems is called :

(A) BASIC interpreter instructions

(B) assembly language

(C) firmware

(D) machine language code

8 The circuits in the 8085A that provide the arithmetic and logic functions are called the :

(A) None of these

(B) CPU

(C) ALU

(D) I/O

9 How many buses are connected as part of the 8085A microprocessor ?

(A) 8

(B) 2

(C) 3

(D) 5

10 The register in the 8085A that is used to keep track of the memory address of the next op-code to be run in the program is the :

(A) accumulator

(B) stack pointer

(C) program counter

(D) instruction pointer

11 How many bits are used in the data bus ?

(A) 10

(B) 7

(C) 8

(D) 9

12 Which bus is a bidirectional bus ?

(A) None of these

(B) address bus

(C) data bus

(D) address but and data bus

13 ORI C, 7E H will perform

(A) None of these

(B) AND operation between (A) and 22H

(C) AND operation between (A) and (B)

(D) OR operation between (C) and 7E H

14 If (A)=11 H and if (C)=22 H, then what will be (A) after executing the instruction MOV A, C

(A) None of these

(B) 11 H

(C) 22 H

(D) Both of these

15 If (C) = 1D H then what will be the (C) after executive the instruction INR C

(A) 1E H

(B) 13 H

(C) 09 H

(D) 11 H

16 LXI B will initiate

(A) None of these

(B) BC pair

(C) HL pair

(D) Both of these

17 The instruction XCHG is used to interchange

(A) None of these

(B) AB pair and DE pair

(C) HL pair and AB pair

(D) HL pair and DE pair

18 If (A) = 55H & Data is 10 H, then what will be XRI A ?

(A) None of these

(B) 11 H

(C) 45 H

(D) Both of these

19 If (A) = DE H and (B) = 11 H then A+B =

(A) None of these

(B) 11H

(C) B2H

(D) EF H

20 The 1's compliment of 50H =

(A) AF H

(B) DF H

(C) 24H

(D) BCH

21 The 2's compliment of 33H is

(A) None of these

(B) CD H

(C) A2 H

(D) FF H

22 If (A) = CD H and (B) = BC H then A–B =

(A) 11 H

(B) 10 H

(C) 55 H

(D) 14 H

23 If the (A) = 55H and (B) = 33 H, then what will be (A) after executing instruction A–B and then A+B

(A) 62 H

(B) 12 H

(C) 55 H

(D) 82 H

24 What will be the 2's compliment of register C if (C)=11 H ?

(A) DE H

(B) AB H

(C) EF H

(D) CA H

25 XRA A can be used

(A) None of these

(B) To clear an Accumulator

(C) To clear register B

(D) To clear register H

26 What will be the content of an Accumulator after executing the following instructions, ORA B then ANA A, if (A)=40 H and (B) = 33 H ?

(A) 42 H

(B) 73 H

(C) 01 H

(D) 00 H

27 What will be the (A) after executing the operation, A+B–C, if (A)=33 H, (B) = 22H and (C) = 11 H

(A) 33 H

(B) 72 H

(C) C7 H

(D) 44 H

28 If (A) = 44H and (B)=70 H then, what will be the (A) after executing instruction ANA B ?

(A) None of these

(B) D3 H

(C) 40 H

(D) 73 H