BRAINWARE UNIVERSITY
Term End Examination 2020 - 21
Programme – Bachelor of Science (Honours) in Advanced Networking & Cyber Security
Course Name – Microprocessor and Microcontroller
Course Code - GEEC301
Semester / Year - Semester III

Time allotted : 75 Minutes   Full Marks : 60

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A

(Multiple Choice Type Question)   1 x 60=60

1.   *(Answer any Sixty)*

(i) First microprocessor chip invented by Intel Corporation in early 1970s was

   a) Intel 8080   b) Intel 4004

   c) Intel 8085   d) Intel 8086

(ii) The program counter in a 8085 micro-processor is a 16-bit register, because

   a) It counts 16-bits at a time   b) There are 16 address lines

   c) It facilitates the user storing 16-bit data temporarily   d) It has to fetch two 8-bit data at a time

(iii) An 8-bit microprocessor has an

   a) 8 bit data bus   b) 8-bit address bus

   c) 8-bit control bus   d) 8-bit interrupt lines

(iv) In an Intel 8085A microprocessor, why is READY signal used?

   a) To indicate to user that the microprocessor is working and is ready for use.   b) To provide proper WAIT states when the microprocessor is communicating with a slow peripheral device.

   c) To slow down a fast peripheral device so as to communicate at the microprocessor's device.   d) None of these

(v) Consider the following I) Sign flag II) Trap flag III) Parity flag IV) Auxiliary carry flag Which one of the above flags is/are present in 8085 microprocessor?

 a) (I) only   b) (I) & (II)

 c) (II) & (III)   d) (I) ,(III) & (IV)

(vi) Which semiconductor technology is used for fabrication of 8085 microprocessor?

 a) ECL   b) NMOS

 c) NMOS and HMOS   d) NMOS and CMOS

(vii) If the microprocessor is capable of addressing 64 Kbytes of memory, its address bus width is

 a) 16 bits   b) 20 bits

 c) 8 bits   d) None of these

(viii) Which of the following statements for Intel 8085 is correct?

 a) Program Counter (PC) specifies the address of the instruction last executed   b) PC specifies the address of the instruction being executed

 c) PC specifies the address of the instruction to be executed   d) PC specifies the number of instructions executed so far

(ix) The first microprocessor chip was of

 a) 4 bits   b) 8 bits

 c) 16 bits   d) 32 bits

(x) Consider the following registers: 1. Accumulator and flag register 2. B and C register 3. D and E register 4. H and L register Which of these 8-bit registers of 8085 microprocessor can be paired together to make a 16-bit register?

 a) 1 ,3 and 4   b) 2 ,3 and 4

 c) 1 ,2 and 4   d) 1 ,2 and 3

(xi) The 64 bit processor is

a) Pentium

b) Pentium II

c) Pentium III

d) Pentium 4

(xii) The address bus of 8085 microprocessor is

a) 16 bit

b) 20 bit

c) 8 bit

d) 24 bit

(xiii) ALU (Arithmetic and Logic Unit) of 8085 microprocessor consists of

a) Accumulator, temporary register, arithmetic and logic circuits

b) Accumulator, arithmetic, logic circuits and five flags

c) Accumulator, arithmetic and logic circuits

d) Accumulator, temporary register, arithmetic, logic circuits and five flags

(xiv) The number of output pins in 8085 microprocessors are

a) 27

b) 40

c) 19

d) 24

(xv) The word size of 8085 microprocessor is

a) 8-bits

b) 16-bits

c) 20-bits

d) 4-bits

(xvi) Why 8085 processor is called an 8 bit processor?

a) because 8085 processor has 8 bit ALU

b) because 8085 processor has 8 bit data bus

c) because 8085 processor has 16 bit data bus

d) because 8085 processor has 16 bit address bus

(xvii) Which stack is used in 8085?

a) FIFO

b) LIFO

c) FILO

d) LILO

(xviii) A microprocessor performs as

    a) CPU of a computer
               b) memory of a computer

    c) output device of a computer
      d) input device of a computer

(xix) The address bus of microprocessor is

    a) unidirectional
                    b) bi-directional

    c) unidirectional as well as bi-directional
    d) None of these

(xx) The parity flag of 8085 microprocessor is set to HIGH when

    a) The total number of 1's is odd
      b) The total number of 1's is even

    c) Both The total number of 1's is odd and
    d) None of these
    The total number of 1's is even

(xxi) The address / data bus in 8085 is _____.

    a) multiplexed
                    b) demultiplexed

    c) decoded
                        d) encoded

(xxii) What is the meaning of the instruction MVI A,05H?

    a) data 05H is stored in the accumulator
    b) fifth bit of accumulator is set to one

    c) address 05H is stored in the accumulator
    d) None of these

(xxiii) ADD B will be executed in

    a) 1 Machine cycle
                    b) 2 Machine cycle

    c) 3 Machine cycle
                    d) 4 Machine cycle

(xxiv) The instruction "JUMP" belongs to

    a) sequential control flow instructions
    b) control transfer instructions

    c) branch instructions
                    d) control transfer & branch instructions

(xxv) Which interrupt has the highest priority?

    a) INTR
                        b) TRAP

c) RST6.5   d) RST6.6

(xxvi) What are level Triggering interrupts?
   a) INTR & TRAP   b) RST6.5 & RST5.5
   c) RST7.5 & RST6.5   d) RST2.5 & RST6.2

(xxvii) The CALL location for TRAP is
   a) 0023H   b) 0032H
   c) 0042H   d) 0024H

(xxviii) Number of software interrupts supported by 8085 microprocessor is
   a) 7   b) 6
   c) 8   d) 9

(xxix) The number of T-States required for PCHL instruction execution is
   a) 4   b) 6
   c) 8   d) 10

(xxx) In 8085 microprocessor, the RST6 instruction transfer Programme execution to following location
   a) 0030H.   b) 0032H.
   c) 0048H.   d) 0024H.

(xxxi) In Microprocessor one of the operands holds a special register called
   a) Calculator   b) Dedicated
   c) Accumulator   d) None of these

(xxxii) MOV A, C is an instruction of
   a) One byte   b) two byte
   c) three byte   d) four byte

(xxxiii) STA 3526H is an instruction of

    a) direct addressing mode   b) indirect addressing mode

    c) register addressing mode   d) Immediate addressing mode

(xxxiv) LXI H, 2500 H is an instruction of

    a) direct addressing mode   b) indirect addressing mode

    c) register addressing mode   d) Immediate addressing mode

(xxxv) MVI A, 58H is an instruction of

    a) direct addressing mode   b) indirect addressing mode

    c) register addressing mode   d) Immediate addressing mode

(xxxvi) How many times will the following loop be executed? XRA A MVI C, 05H LOOP; DCRC JNZ LOOP

    a) once   b) five times

    c) infinite times   d) depends on initial value of A

(xxxvii) By issuing which one of the following signal, CPU releases the system bus to DMA controller?

    a) HOLD   b) HLDA

    c) ALE   d) READY

(xxxviii) Instruction DAA stands for-

    a) decimal adding and ending   b) decimal altering accumulator

    c) decimal altering adding   d) decimal adjust accumulator

(xxxix) CMP B is an instruction of

    a) direct addressing mode   b) indirect addressing mode

    c) register addressing mode   d) Immediate addressing mode

(xl) To which register the instruction PUSH and POP are associated-

a) Stack pointer   b) HL pair

c) Program counter   d) PSW

(xli) A sequence of two registers that multiplies the content of DE register pair by two and stores the result in HL register pair (in 8085 assembly language) is

a) XCHG & DAD B   b) XTHL & DAD H

c) PCHL & DAD D   d) XCHG & DAD H

(xlii) The process of checking the status of device and transferring the data with IO device is called-

a) handshaking   b) peripheral

c) ports   d) None of these

(xliii) HRQ stands for-

a) Hold register   b) Hold resolver

c) Hold request   d) Hold read request

(xliv) Which is the faster DMA mode?

a) Block transfer   b) Cycle stretching

c) Cycle stealing   d) None of these

(xlv) 8086 has

a) 6 memory segment   b) 8 memory segment

c) 4 memory segment   d) 10 memory segment

(xlvi) Physical address of 8086 is

a) 8 bits   b) 16 bits

c) 20 bits   d) 32 bits

(xlvii) The data in the stack is called

a) Pushing data   b) Pushed

c) Pulling   d) None of these

(xlviii) The register AX is formed by grouping _____.
　　a) AH & AL   b) BH & BL
　　c) CH & CL   d) DH & DL

(xlix) In 8086 microprocessor the following has the highest priority among all type interrupts?
　　a) NMI   b) DIV 0
　　c) TYPE 225   d) OVER FLOW

(l) In 8086 microprocessor one of the following statements is not true?
　　a) coprocessor is interfaced in max mode   b) coprocessor is interfaced in min mode
　　c) i/o can be interfaced in max / min mode   d) supports pipelining

(li) Which processor can address 1024KB of memory?
　　a) 8085   b) 8086
　　c) Both 8085 and 8086   d) None of these

(lii) What is addressing mode of instruction MOV AX, [BX]?
　　a) register direct addressing mode   b) immediate addressing mode
　　c) register indirect addressing mode   d) indirect addressing mode

(liii) Which of the following is based with 16 bit displacement addressing?
　　a) MOV AX, [BX+06]   b) MOV AX, [BP+2000]
　　c) MOV AX, [BP+06]   d) MOV AX, [BP]

(liv) 2's compliment instruction is
　　a) NEG   b) NOT
　　c) CMP   d) CMC

(lv) In 8086, to execute a program, which command is used?

a) R
b) G
c) E
d) F

(lvi) The accumulator is 16 bit wide of 8086 and is called

a) AX
b) AH
c) AL
d) DL

(lvii) How many register banks are present in 8051 microcontroller?

a) 4
b) 3
c) 2
d) 1

(lviii) The I/O ports that are used as address and date bus for external memory are

a) Port 0 & 2
b) Port 1& 2
c) Port 1& 3
d) Port 0& 3

(lix) The 8051 series has how many 16 bits registers?

a) 1
b) 3
c) 2
d) 4

(lx) 8086 microprocessor has how many pins

a) 20
b) 30
c) 40
d) 50