Max Marks: 20   **Max Time: 1Hr.**

Part (A)

Solve the Following: **(05)**

Q.1 Ready pin of a microprocessor is used
   (A) to indicate that the microprocessor is ready to receive inputs.
   (B) to indicate that the microprocessor is ready to receive outputs.
   (C) to introduce wait states.   (D) to provide direct memory access.

Q.2 These are two ways in which a microprocessor can come out of Halt state.
   (A) When hold line is a logical 1.
   (B) When interrupt occurs and the interrupt system has been enabled.
   (C) When both (A) and (B) are true.
   (D) When either (A) or (B) are true.

Q.3 SD RAM refers to
   (A) Synchronous DRAM   (B) Static DRAM
   (C) Semi DRAM   (D) Second DRAM

Q.4 Which of the following is true with respect to EEPROM?
   (A) contents can be erased byte wise only.
   (B) contents of full memory can be erased together.
   (C) contents can be erased using ultra violet rays
   (D) contents can not be erased

Q.5 Which microprocessor pins are used to request and acknowledge a DMA transfer?
   (A) reset and ready   (B) ready and wait
   (C) HOLD and HLDA   (D) None o these

PART-B (Attempt any three)

Que.1   Explain the Microprocessor Operations.[CO.3]   (05)

Que. 2 Draw the Pin diagram of Intel's 8085 & explain the following:
        1. INTR,INTA,   2.HOLD,HLDA 3. READY   [CO.3,6]   (05)

Que. 3 Explain the Addressing modes of 8086 Microprocessor with examples. [CO.3,6] (05)

Que. 4 Draw the Architecture diagram of Intel's 8086 & explain the following:

        Instruction Fetch Queue, Flag Register [CO.3]   (05)

Que. 5 What is Interrupt ? Explain the following:

        1) Hardware Interrupt & Software Interrupt

        2) Maskable & Non- Maskable Interrupt. [CO.3,6]   (05)

Que.6   Explain the term BIOS . [CO.1]   (05)

ACROPOLIS TECHNICAL CAMPUS
DEPARTMENT OF ELECTRONICS & COMMUNICATION.
MID SEMESTER TEST-1 (November-2017)   Branch/Year/Semester/Sec: EC/3nd Yr/5th Sem/A & B
Sub Name & Code: Microprocessor & Microcontroller (EC5003)

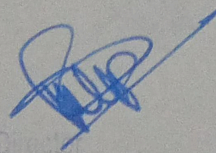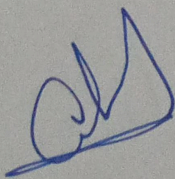Max Marks: 20   Max Time: 1Hr.

Part (A)

Solve the Following: (05)

Q.1 which of the Following holds the ROM, CPU, RAM and expansion cards?
   a) Hard disk   b) Floppy disk   c) Mother board   d) none of the above

Q.2 The language that the computer can understand and execute is called _____
   a) Machine language   b) Application software
   c) System program   d) none of the above

Q.3 Actual execution of instructions in a computer takes place in
   a) ALU   b) Control Unit   c) Storage unit   d) None of the above

Q.4   Execution of two or more programs by a single CPU is known as :
   a) Multiprocessing   b) Time sharing
   c) Multiprogramming   d) None of the above

Q.5   Operating system
   a) Link a program with the subroutines it references
   b) Provides a layered, user-friendly interface
   c) Enables a programmer to draw a flowchart   d) None of the above

PART-B (Attempt any three)

Que. 1   Draw the Architecture diagram of Intel's 8255 & explain the term:
      a.   Data bus buffer
      b.   Read/Write Control Logic   [CO.1]   (05)

Que. 2   Explain the Hardware controlled data transfer in terms of DMA Controller.   (05)
    [CO.6]

Que. 3   Draw the Control Word Format of Intel's 8255 & explain BSR Mode
With an Example. [CO.5]   (05)

Que. 4   Draw the Architecture diagram of Intel's 8257 & explain the term:

    1.   Priority resolver   2. DMA Address Register   [CO.6]   (05)

Que.5   Explain CALL & RETURN in terms of Microprocessor. [CO.1]   (05)

Que.6   Draw the Architecture Diagram of Intel's 8253 & Explain mode 0.[CO.2]   (05)

ACROPOLIS TECHNICAL CAMPUS
DEPARTMENT OF ELECTRONICS & COMMUNICATION.
MID SEMESTER TEST-2 (November-2017)   Branch/Year/Semester/Sec: EC/2nd Yr/3th Sem/
Sub Name & Code: Measurement & Instrumentation (EC3005)

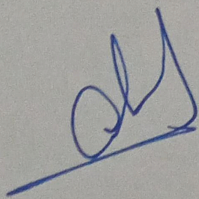Max Marks: 20   Max Time: 1Hr.

Part (A)
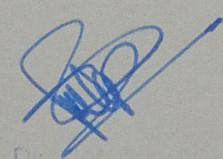
Solve the Following: (05)

1. The use of _____ instruments is merely confined within laboratories as standardizing Instruments.
   (a) Absolute   (b) indicating   (c) recording   (d) integrating

2. Which of the following instruments indicate the instantaneous value of the electrical quantity being measured at the time at which it is being measured?
   (a) Absolute instruments   (b) Indicating instruments
   (c) Recording instruments   (d) Integrating instruments

3. _____ instruments are those which measure the total quantity of electricity delivered in a particular time.
   (a) Absolute   (b) Indicating   (c) Recording   (d) Integrating

4. Which of the following are integrating instruments?
   (a) Ammeters   (b) Voltmeters
   (c) Watt meters   (d) Ampere-hour and watt-hour meters

5. Resistances can be measured with the help of
   (a) Watt meters   (b) Voltmeters   (c) Ammeters   (d) Ohmmeters and resistance bridges

PART-B (Attempt any three)

Que. 1   Why Maxwell's bridge is used?

Que. 2   What are the Advantages & disadvantages of Maxwell Bridge?

Que. 3   Draw the Hay's Bridge & Derive the expression for the unknown quantity.

Que. 4   Explain the advantages & disadvantages of Hay's bridge.

Que. 5   Draw L.V.D.T & explain in detail.

Que.6   Explain the Advantages & Disadvantages of Strain gauge.

Shivajirao Kadam Institute of Technology & Management - Technical Campus, INDORE