Roll no._____ **ID: 180844/170844/120844/031045/030834**

Semester: 4th
Branch: Comp, Eltx,Med Eltx,Mecatronics(5th Sem), Power Eltx
Subject Name: Microprocessors and Peripheral Devices/Microp. & App.

Time Allowed : 3 Hrs. **MM:100**

Section –A

Note: Multiple Choice questions. All questions are compulsory. **10x1=10**

Q.1 A microprocessor with 8-bit can process _____ bits of data at a time.
a) 4 b) 8
c) 12 d) 16

Q.2 The microprocessor of a computer can operate on any information if it is present in _____ only.
a) Program Counter b) Flag
c) Main Memory d) Secondary Memory

Q.3 Which of the following is true about microprocessors?
a) It has an internal memory
b) It has interfacing circuits
c) It contains ALU, CU, and registers
d) It uses Harvard architecture

Q.4 The control signal employed to differentiate amongst an input or output operation and memory operations is
a) ALE b) IO/ $\overline{M}$
c) SID d) SOD

Q.5 Address lines necessitate for the 64kB memory is
a) 24 b) 36
c) 12 d) 16

Q.6 In an 8085 microprocessor, which one is the non-maskable interrupt?
a) RST 7.5 b) TRAP
c) HOLD d) INTR

Q.7 Which of the following interfacing IC is a DMA controller?
a) 8257/37 b) 8155
c) 8253/54 d) 8279

Q.8 8086 can operate in _____ modes.
a) 1 b) 2
c) 3 d) 4

Q.9 What is the use of zero flags in the 8086 microprocessor?
a) Use to check the result of arithmetic operation
b) Use to check the result of bitwise logical operation
c) Both a and b
d) None

Q.10 The term gigabytes refers to
a)1024 bytes b) 1024 kilobytes
c) 1024 megabytes d)1024 gigabytes

Section-B

Note: Objective type questions. All questions are compulsory. **10x1=10**

Q.11 Define Microprocessor
Q.12 Define USART
Q.13 Define parity flag
Q.14 Define maskable interrupt
Q.15 Define interfacing
Q.16 Define 3 byte instruction
Q.17 Define control word

Q.18 Define DMA
Q.19 Define PPI
Q.20 Define bidirectional bus

Section –C

Note: Short answer type Questions. Attempt any twelve questions out of fifteen questions. 12x5=60

Q.21 Define addressing modes? Explain different addressing modes with examples?
Q.22 Write steps how to execute a program in 8085 kit with e.g.
Q.23 Difference between I/O mapped I/O and memory mapped I/O
Q.24 Define microprocessor, its evolution, and impact on modern society
Q.25 Write various application of microprocessor
Q.26 Difference between maskable and non-maskable interrupts
Q.27 Classify the interrupts of 8085.Explain the steps to process the interrupt generated in 8085
Q.28 Explain basic features of 8253 PIT
Q.29 Explain instruction cycle in brief
Q.30 Define bus. Give the concept of bus organization of 8085 with a diagram.
Q.31 Define data transfer with handshaking signal
Q.32 Difference between I/O mapped I/O and memory mapped I/O?
Q.33 Explain the control word format of 8255 and define the purpose of each bit
Q.34 Write a short note on
a) Stack b) Memory interfacing
Q.35 Draw and explain pin configuration of 8085

Section-D

Note: Long answer questions. Attempt any two questions out of three questions. 2x10=20

Q.36 Draw and discuss pin diagram of 8086 in detail. Draw an architecture and function of each block of microprocessor 8085 in detail.
Q.37 Explain programmed data transfer techniques and their types in detail with suitable example
Q.38 WAP in assembly language to find largest out of 3 numbers stored at some location