

Roll No \_\_\_\_\_

Script No.



# SINDH BOARD OF TECHNICAL EDUCATION KARACHI

DIPLOMA OF ASSOCIATE ENGINEER 3rd YEAR

## MODEL PAPER

ANNUAL EXAMINATION 2021

Technologies: COMPUTER INFORMATION TECHNOLOGY

**SUBJECT: COMP – 342 PC SYSTEM ARCHITECTURE**

**SECTION "A" OBJECTIVE**

Instructions:

- Attempt all questions.
- All questions carry equal marks.
- Question paper must be returned back to invigilator within the scheduled time.

TIME: 40 Minutes  
MAX. MARKS: 50

### Q1.(a) Fill In the Blanks

**Max Marks 30**

- 1) Handshaking is the process by which two device initiate \_\_\_\_\_ .
- 2) CGA stands for \_\_\_\_\_.
- 3) There are \_\_\_\_\_ levels of Cache memory.
- 4) DMA operation occurs between a \_\_\_\_\_ and microprocessor.
- 5) HDMI used for \_\_\_\_\_.
- 6) Size of computer accumulator register can be of \_\_\_\_\_ byte.
- 7) To extend the connectivity of the processor we use \_\_\_\_\_ Bus.
- 8) The purpose of FLAGS register is to indicate the status of the \_\_\_\_\_.
- 9) The physical address is a combination of \_\_\_\_\_ and \_\_\_\_\_.
- 10) Computer bus lines are consists of set of \_\_\_\_\_ lines.
- 11) The \_\_\_\_\_ is a magnetic storage device mounted in a sealed electronic system.
- 12) Base & Radix of a decimal number system is \_\_\_\_\_.
- 13) TCP/IP protocol is used to connect with \_\_\_\_\_.
- 14) Operating System provides bridge between \_\_\_\_\_ and \_\_\_\_\_.
- 15) The \_\_\_\_\_ interrupt is which the work has to be performed when required.

### Q.1(b) Encircle "T" for true and "F" for false:

**Max Marks 10**

- 1) Pentium 4 has maximum 250 MB of RAM. ( )
- 2) Buffer is a circuit that prevent loading of an input or output. ( )
- 3) Operand means value/memory location on which an operation is being performed. ( )
- 4) Co-Processor is used for mathematical calculation. ( )
- 5) CD ROM is a mechanical storage device. ( )

- 6) BIOS chip located on mother board. ( )
- 7) ALU is not the part of a processor. ( )
- 8) RAM is a volatile memory. ( )
- 9) 80896 is a 32-bit processor. ( )
- 10) The clock frequency of SDK-8086/88 is 0MHz. ( )

**Q1.(c) Multiple choice questions:**

**Max Marks 10**

- 1) Partitions are \_\_\_\_\_ division of hardware..  
 a) Logical                      b) Physical                      c) Virtual                      d) Embedded
- 2) DRAM is a \_\_\_\_\_ memory.  
 a) Static                      b) Dynamic                      c) Both                      d) Electrical
- 3) Magnetic disk is coated with \_\_\_\_\_.  
 a) Silicon                      b) Magnet                      c) Graphite                      d) Iron
- 4) Cache, Register and I/O units re common \_\_\_\_\_ of a microprocessor.  
 a) Element                      b) Device                      c) Component                      d) Segment
- 5) IRQ stands for \_\_\_\_\_.  
 a) Internet Request Query                      b) Interrupt Request Query  
 c) Interrupt Register Query                      d) Interrupt Request
- 6) Computer memory which allows simultaneously read and writes operation is \_\_\_\_\_.  
 a) ROM                      b) BUS                      c) RAM                      d) USB
- 7) Microprocessor required \_\_\_\_\_ volts of electricity.  
 a) 10 volts                      b) 5 volts                      c) 2 volts                      d) 15 volts
- 8) In 8086/88 microprocessor carries \_\_\_\_\_ pins.  
 a) 20                      b) 40                      c) 10                      d) 25
- 9) We can divide memory mode addressing into \_\_\_\_\_.  
 a) Two                      b) Three                      c) Four                      d) Six
- 10) EISA stands for \_\_\_\_\_.  
 a) Extended Industry Standard Architecture                      b) Electronic Interrupt System Access  
 c) Extended Industry Services Application                      d) None of them

Signature of Candidate

Seal of Examination Centre

Signature of Invigilator



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**SECTION “B” & “C”**

**TIME: 2.40 HOURS**

**MAX. MARKS: 25**

**Section “B”**

**(Short Answer Questions)**

**Max. Marks: 15**

**Q2: Attempt any Six questions from the following. All questions carry equal marks.**

1. Describe tri state circuit?
2. Define Fetch-Decode-Execute cycle?
3. Why we used BCD code system?
4. Write down the characteristics of Address & Control bus?
5. Describe memory paging?
6. Differentiate IDE and EDIE?
7. Define the term “CACHING”?
8. Enlist the function of Clock generator?
9. Define Ready, Wait and Hold state?
10. Define Register and its types?

**Section “C”**

**(Descriptive Answer Questions)**

**Max. Marks: 10**

**Q3: Attempt All questions from the following. All questions carry equal marks.**

1. Draw and label a pin configuration diagram of 8086/88 microprocessor?

OR

Describe isolated and memory mapped I/O?

2. How Real Mode & Protected Mode memory addressing works?

OR

Differentiate between I/O read and write Cycle?

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