

Short Quiz | 8086 Hardware Specifications

- Due Oct 7 at 5:40pm
- Points 30
- Questions 30
- Available until Oct 7 at 5:40pm
- Time Limit 30 Minutes

Instructions

University of San Carlos | Department of
COMPUTER ENGINEERING



Choose the correct answer.

This quiz was locked Oct 7 at 5:40pm.

Attempt History

	Attempt	Time	Score
LATEST	Attempt 1	25 minutes	24 out of 30

❗ Correct answers are hidden.

Score for this quiz: 24 out of 30

Submitted Oct 7 at 5:35pm

This attempt took 25 minutes.



Question 1

1 / 1 pts

Which of the following represents the data bus of the 8086?

- ☐ AD15 - AD0
- ☐ AD19 - AD0
- ☐ AD20 - AD0
- ☐ AD8 - AD0

Incorrect



Question 2

0 / 1 pts

The 8284A clock generator is an integrated circuit (IC) that is designed specifically for use with the _____ microprocessor.

8086



Question 3

1 / 1 pts

Which pins of the 8086 Microprocessor IC goes to *logic 0* when the CPU is having an I/O operation?

- ☐ INTR
- ☐ M/IO
- ☐ RD
- ☐ WR



Question 4

1 / 1 pts

True or False: In the Minimum Mode of operation, the 8086 microprocessor can work in multiprocessor or co-processor configuration.

- ☐ True
- ☐ False



Question 5

1 / 1 pts

Which of the following pins of the 8086 Microprocessor IC indicates a data transfer via the high byte of the data bus $D_{15} - D_8$?

- ☐ BLE
- ☐ ALE
- ☐ HLDA
- ☐ BHE



Question 6

1 / 1 pts

Which of the following pins goes to *logic 0* when the CPU is performing a memory or I/O write operation?

- ☐ RD
- ☐ MN/MX
- ☐ M/IO
- ☐ WR



Question 7

1 / 1 pts

Which of the following devices do the DT/R and DEN control?

- ☐ Address Bus
- ☐ Data Bus
- ☐ Data Buffer
- ☐ Address Latch

Incorrect



Question 8

0 / 1 pts

How many pins does the 8284A IC have?

- ☐ 14
- ☐ 28
- ☐ 18
- ☐ 40



Question 9

1 / 1 pts

Which of the following are **not** used in a Minimum Mode operation of the 8086 Microprocessor IC?

- ☐ RD
- ☐ WR
- ☐ M/IO
- ☐ S2 - S0



Question 10

1 / 1 pts

Match the pins on the left to its description on the right.

CLK

Provides a basic timing for pro

READY

Acknowledgement from a dev

TEST

This is used to synchronize an

RESET

Causes the processor to imme



Question 11

1 / 1 pts

True or False. A clock generator is a circuit or an electronic oscillator that produces a timing signal (known as a clock signal) for use in synchronizing a circuit's operation.

☐ True

☐ False



Question 12

1 / 1 pts

Which of the following pins goes to **logic-0** to indicate that the 8086 microprocessor is about to send or receive data on the AD0-AD15 multiplexed address/data bus?

☐ BHE

☐ ALE

☐ DT/R

☐ DEN



Question 13

1 / 1 pts

True or False: The clock frequency output of the 8284A clock generator is 1/3 of the oscillator frequency.

☐ True

☐ False



Question 14

1 / 1 pts

Which of the following pins of the 8086 Microprocessor IC are considered as control signals?

☒ DT/R

☒ ALE

☒ M/IO

☒ DEN



Question 15

1 / 1 pts

Which of the following pins of the 8086 Microprocessor IC indicates the availability of a valid address as well as enabling the address latch?

☐ HOLD

☐ BHE

☐ ALE

☐ READY



Question 16

1 / 1 pts

True or False: The BHE (*Bus High Enable*) signal does not require latching.

☐ True

☐ False

Incorrect



Question 17

0 / 1 pts

The most common type of piezoelectric resonator used is the _____, so oscillator circuits incorporating them became known as crystal oscillators.

quartz



Question 18

1 / 1 pts

Which of the following pins of the 8086 Microprocessor IC determines the direction of the data bus either input or output?

☐ DEN

☐ HLDA

☐ DT/R

☐ HOLD

Incorrect



Question 19

0 / 1 pts

Which operation mode of the 8086 Microprocessor IC uses the ALE pin to latch the address?

☐ Minimum Mode

☐ Maximum Mode



Question 20

1 / 1 pts

True or False: A crystal oscillator is an electronic oscillator circuit that uses the mechanical resonance of a vibrating crystal of piezoelectric material to create an electrical signal with a very precise frequency.

☐ True

☐ False

Incorrect



Question 21

0 / 1 pts

In the _____ Mode of operation, the 8086 microprocessor do not associate with any co-processors and cannot be used for multiprocessor systems.

single-processor



Question 22

1 / 1 pts

How many pins does the 8086 IC have?

☐ 30

☐ 40

☐ 44

☐ 18



Question 23

1 / 1 pts

Which mode of the 8086 microprocessor utilizes a bus controller?

☐ Minimum Mode

☐ Maximum Mode

Incorrect



Question 24

0 / 1 pts

A _____ is a particular type of signal that oscillates between a high and a low state.

square wave



Question 25

1 / 1 pts

Which of the following pins of the 8086 Microprocessor IC will cause the processor to enter interrupt acknowledge cycle on INTA pin?

☐ TEST

☐ RESET

☐ INTR

☐ INTA



Question 26

1 / 1 pts

Which of the following results in valid data during a 16-bit read operation?

☐ address written at the address bus, BHE = 0 and RD = 1

☐ address written at the address bus, BHE = 1 and RD = 1

☒ address written at the address bus, BHE = 0 and RD = 0

☐ address written at the address bus, BHE = 1 and RD = 0



Question 27

1 / 1 pts

Why is there a need to latch the address bus?

☒ To retain the address while performing a read/write operation.

☐ To retain the data when the CPU writes an address to the address bus.

☐ To prevent collision between address and data.

☐ None of the choices.



Question 28

1 / 1 pts

Which of the following pins of the 8086 Microprocessor IC are used for DMA interfacing?

☐ INTA

☒ HOLD

☒ HLDA

☐ INTR



Question 29

1 / 1 pts

True or False: The pins $AD_{15} - AD_0$ are shared as an address bus and data bus.

☒ True

☐ False



Question 30

1 / 1 pts

When to write data to the data bus during a 16-bit write operation?

- ☒ address written at the address bus, BHE = 0 and WR = 0
- ☐ address written at the address bus, BHE = 1 and WR = 0
- ☐ address written at the address bus, BHE = 0 and WR = 1
- ☐ address written at the address bus, BHE = 1 and WR = 1

Quiz Score: 24 out of 30