

Short Quiz on 8086 Hardware Specifications

- Due Oct 15 at 9:30pm
- Points 22
- Questions 22
- Available Oct 15 at 9pm - Oct 15 at 9:30pm 30 minutes
- Time Limit 30 Minutes

Instructions

Choose the correct answer.

Attempt History

	Attempt	Time	Score
LATEST	Attempt 1	19 minutes	22 out of 22

❗ Correct answers are hidden.

Score for this quiz: 22 out of 22

Submitted Oct 15 at 9:18pm

This attempt took 19 minutes.



Question 1

1 / 1 pts

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

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



Question 2

1 / 1 pts

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

- ☒ Minimum Mode
- ☐ Maximum Mode



Question 3

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



Question 4

1 / 1 pts

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

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



Question 5

1 / 1 pts

How many pins does the 8086 IC have?

- ☐ 18
- ☐ 24
- ☐ 44
- ☒ 40



Question 6

1 / 1 pts

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

- ☒ M/IO
- ☒ DEN
- ☒ DT/R
- ☒ ALE



Question 7

1 / 1 pts

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

- ☐ HOLD
- ☐ READY
- ☒ ALE
- ☐ BHE



Question 8

1 / 1 pts

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

☐ RESET☒ INTR☐ INTA☐ TEST

Question 9

1 / 1 pts

True or False: The BHE signal does not require latching.

☐ True☒ False

Question 10

1 / 1 pts

Which of the following pins goes to logic-1 when a valid data is available at the address/data lines?

☒ DEN☐ ALE☐ DT/R☐ BHE

Question 11

1 / 1 pts

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

☒ M/IO☐ INTR☐ WR☐ RD

Question 12

1 / 1 pts

Which mode of the 8086 utilizes a bus controller?

☐ Minimum Mode☒ Maximum Mode

Question 13

1 / 1 pts

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

- ☐ WR
- ☐ M/IO
- ☐ RD

☒ **S₂ - S₀**

Question 14

1 / 1 pts

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

☐ INTR☒ **HOLDA**☐ INTRA☒ **HOLD**

Question 15

1 / 1 pts

True or False: The pins AD₁₅ - AD₀ are shared as an address bus and data bus.

☒ **True**☐ False

Question 16

1 / 1 pts

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

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

Question 17

1 / 1 pts

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

☐ MN/MX☒ **WR**☐ M/IO☐ RD

Question 18

1 / 1 pts

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

☒ BHE☐ BLE☐ HLDA☐ ALE

Question 19

1 / 1 pts

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

CLK

Provide basic timing for proc ▼

READY

Acknowledgement from a de ▼

TEST

This is used to synchronize ▼

RESET

Causes the processor to imn ▼



Question 20

1 / 1 pts

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

☐ HOLD☒ DT/R☐ DEN☐ HOLDA

Question 21

1 / 1 pts

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

☒ True

☐ False



Question 22

1 / 1 pts

Why is there a need to latch the address bus?

☐ None of the choices.

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

☐ To prevent collision between address and data.

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

Quiz Score: 22 out of 22