Exam Number/Code: EN0-001

Exam Name: ARM Accredited Engineer

Version: Demo

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QUESTION NO: 1

In a Cortex-A9 processor, when the Memory Management Unit (MMU) is disabled, which of the following statements is TRUE? (VA is the virtual address and PA is the physical address)

A. VA == PA; No address translations; instructions and data are not cached

- B. VA! = PA; No address translations; instructions may be cached but not data
- C. VA == PA; Address translations take place; data may be cached but not instructions
- D. VA == PA; No address translations; instructions may be cached but not data

Answer: D

QUESTION NO: 2

In the Generic Interrupt Controller (GIC), when an interrupt is requested, but is not yet being handled, it is in which of the following states?

- A. Inactive
- B. Active
- C. Pending
- D. Edge-triggered

Answer: C

QUESTION NO: 3

A simple system comprises of the following memory map:

Flash - 0x0 to 0x7FFF

RAM - 0x10000 to 0X17FFF

When conforming to the ABI, which of the following is a suitable initial value for the stack pointer?

- A. Top address of RAM (0x18000)
- B. Top address of flash (0x8000)
- C. Bottom address of RAM (0x10000)
- D. Bottom address of flash (0x0000)

Answer: A

QUESTION NO: 4

A program running on a development board that is connected to a host using a debugger can access a file on the host by using:

A. Memory mapping

B. Semihosting

C. Polling

D. Virtual I/O

Answer: B

QUESTION NO: 5

In which type of storage will the compiler preferentially place frequently accessed variables?

A. Stack

B. Heap

C. Registers

D. Hard disk

Answer: C

QUESTION NO: 6 What view in a debugger displays the order in which functions were called?

- A. The Call Stack view
- B. The Memory view
- C. The Registers view
- D. The Variables view

Answer: A

QUESTION NO: 7

Printf statements could be used to achieve which of the following debug tasks?

- A. Observe changes to a local variable in a function
- B. Capture a real-time trace of program execution
- C. Debug boot code, before a call to the C main() function
- D. Stop the processor at an interesting location in the code

Answer: A

QUESTION NO: 8

When the processor is executing in Thumb state, which of the following statements is correct about the values stored in R15?

A. Bits[31:16] are duplicated with bits[15:0]

- B. The PC value is stored in bits[31:1] and bit[0] is treated as zero
- C. The PC value is stored in bits[31:16] and bits[15:0] are undefined
- D. The PC value is stored in bits[15:0] and bits[31:16] are undefined

Answer: B

QUESTION NO: 9

A standard performance benchmark is being run on a single core ARM v7-A processor. The performance results reported are significantly lower than expected. Which of the following options is a possible explanation?

- A. L1 Caches and branch prediction are disabled
- B. The Embedded Trace Macrocell (ETM) is disabled
- C. The Memory Management Unit (MMU) is enabled
- D. The Snoop Control Unit (SCU) is disabled

Answer: A

QUESTION NO: 10

When setting the initial location of the stack pointer and the base address of the heap, the ARM EABI requires that the:

A. Base address of the heap must be the same as the initial stack pointer.

- B. Stack pointer must be 8-byte aligned.
- C. Heap must be in external RAM.
- D. Initial stack pointer must be the lowest addressable memory location.

Answer: B