QUIZ 7

* **Question 1**

1 out of 1 points

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|  |  | | | |
|  | If a function calls a subsequent function, it must save \_\_\_\_\_\_\_ on the stack, or it will be unable to return properly. |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | Correct return address | | **[ or, LR, X30]** |  |  |  | | --- | |  | |  |  |  |

* **Question 2**

1 out of 1 points

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|  |  | | | |
|  | The reason why ARMv8 convention has some registers not saved on a function call is to improve performance. |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | Correct True | |  |  | |  |  | |  |  |  |

* **Question 3**

1 out of 1 points

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| --- | --- | --- | --- | --- |
|  |  | | | |
|  | During the course of a given program the stack will always grow and never shrink. |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | Correct False | | Response Feedback: | The stack will grow with each function call and shrink on each return. | |  |  | |  |  |  |

* **Question 4**

1 out of 1 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | If the X9 register is used by the callee, they must be saved by the callee. |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | Correct False | | Response Feedback: | X9 is a "caller save" register, meaning that the contents of the register are not guaranteed to to remain across calls, if the caller wants to keep the value, the caller needs to save it. | |  |  | |  |  |  |

* **Question 5**

1 out of 1 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | Assuming a simple subroutine that does not call any further subroutines itself, must use four of the saved registers, how many bytes are pushed on the stack when the function is entered? |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | Correct 32 | |  |  |  |