AP® Computer Science Principles

Written Response Prompts
Set 1

COMPUTER SCIENCE PRINCIPLES

SECTION II

Time—1 hour

2 Questions

Directions: Read each question carefully and completely. Write your response in the space provided for each question in the Written Response booklet.

You may plan your answers in this orange booklet, but no credit will be given for anything written in this booklet. **You will only earn credit for what you write in the separate Written Response booklet.**

1. Programs accept input to achieve their intended functionality. Describe at least one valid input to your program and what your program does with that input.

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Write your responses to this question only on the designated pages in the separate Written Response booklet. If there are multiple parts to this question, write the part letter with your response.

GO ON TO THE NEXT PAGE.

2. Refer to your Personalized Project Reference when answering this question.

    (a) Consider the first iteration statement included in the Procedure section of your Personalized Project Reference. Describe what is being accomplished by the code in the body of the iteration statement.

    (b) Consider the procedure identified in part (i) of the Procedure section of your Personalized Project Reference. Write two calls to your procedure that each cause a different code segment in the procedure to execute. Describe the expected behavior of each call. If it is not possible for two calls to your procedure to cause different code segments to execute, explain why this is the case for your procedure.

    (c) Suppose another programmer provides you with a procedure called checkValidity(value) that returns true if a value passed as an argument is considered valid by the other programmer and returns false otherwise. Using the list identified in the List section of your Personalized Project Reference, explain in detailed steps an algorithm that uses checkValidity to check whether all elements in your list are considered valid by the other programmer. Your explanation must be detailed enough for someone else to write the program code for the algorithm that uses checkValidity.

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Write your responses to this question only on the designated pages in the separate Written Response booklet. If there are multiple parts to this question, write the part letter with your response.

STOP

END OF EXAM