

AMCAT Data Types Questions

Question 1

What collects all the source code for an application and prepares them to be ready for execution?

- A. Executor
- B. Loader
- C. Linker
- D. Compiler

Answer- C

Explanation: In computing, a linker or link editor is a computer program that takes one or more object files generated by a compiler and combines them into a single executable file, library file, or another 'object' file.

Question 2

Usain Bolt runs 400 meters race, the timekeeper wants to write a program to save his track timing what kind of a data type should he be using to store the temporary data?

- A. int
- B. Float
- C. Pointer
- D. Double

Answer- D

Explanation: The double type of data will give him the highest precision. e.g – 9.59716 secs

Question 3

Raman works in a reputed software company. His manager has asked him to make students sit in an array like position, an array which can store numbers in both negative $a[-4]$ and $a[4]$ and so on in a special compiler. He can only use 8 bytes of addressing. How many people can sit in this array and what is the last negative position?

- A. 128, -127
- B. 264, -128
- C. 264, -127
- D. 512, – 127

Answer- B

Explanation: The For signed integer the possibilities are $2^8 = 264$ However for unsigned we can divide this by 2 i.e. 128. Thus array according the basic storage will be from -128 to +127.

Question 4

Paras has to write a code using a consecutive number of registers and these registers can at max have 11 bits. How many signed numbers can he store in this

- A. 1024
- B. 512
- C. 2048
- D. 256

Answer- C

Explanation: It is very simple since it is signed thus, $2^{11} = 2048$ will be the answer

Question 5

Assembler works to convert assembly language program into machine language:

- A. Before the computer can execute it
- B. After the computer can execute it
- C. In between execution
- D. All of these

Answer- A

Explanation: Before the computer can execute a program, the Assembler works to convert assembly language program.

Question 6

Prateek has got homework from his teacher to find the numbers bits in a data type that will help me write in Portuguese Language has about 60 letters in it. What are number of bits he must be using –

- A. 4
- B. 5
- C. 6
- D. 3

Answer- C

Explanation: Since 2^6 is 64. For 60 a 6 bit integer will be enough.

Question 7

Which of the following is not a data type?

- A. int
- B. float
- C. short
- D. Boolean
- E. All of the above

Answer- E

Explanation: All of them are data types.

Question 8

What is the storage size and the range for short?

- A. 4 bytes, 65,534
- B. 2 bytes, 65,534
- C. 2 bytes, -32,768 to 32,767
- D. 4 bytes, -32,768 to 32,767

Answer- C

Explanation: Short number is of 2 bytes and ranges from -32,768 to 32,767

Question 9

Which of the following is not derived type of Data Type?

- A. Pointer types
- B. Array types
- C. Enum Type
- D. Structure types
- E. Union types

Answer- C

Explanation: All except, Enum Type are derived type