Computer Fundamentals (IT) – Sample Set

Q1. Which of the following statements is correct about structure ?

Ops. A. A structure is a user defined variable which may hold members of different sizes and type.

B. A structure can be defined of collection of homogeneous data items only.

C. A structure can be defined of collection of heterogeneous data items.

D. Structure uses a single memory location to hold more than one variable.

Q2. Is it possible for a class to have it's self-type object in C++? If yes, then how?

Ops. A. No, it's not possible.

B. Yes, it's possible to have it's self type object as a class declaration can contain static object of self type, it can also have pointer to self type.

C. Yes, it's possible to have it's self type object as a class declaration can contain non-static object of self type.

D. Yes, it's possible to have it's self type object as a class defination can contain non-static object of self type.

Q3. Which of the following statements is false regarding C++?

Ops. A. If a non-static object is member then declaration of class is incomplete and compiler has no way to find out size of the objects of the class.

B. Static variables do not contribute to the size of objects. So there is no problem in calculating size with static variables of self type.

C. C++ does not allow functions to be overloaded on the basis of const-ness of parameters if the const parameter is a reference or a pointer.

D. In C++, Reference variables are safer than pointers because reference variables must be initialized a nd they cannot be changed to refer to something else once they are initialized.

Q4. Which of the following statements is correct to differentiate between NULL and void?

Ops. A. None of the mentioned options

B. A null variable is used to identify pointers as having no initial size., whereas void variable simply used to indicate an empty value

C. A null variable simply indicates integer zero, whereas void is used to identify pointers as having no initial size.

D. A null variable simply indicates an empty value, whereas void is used to identify pointers as having no initial size.

Q5. Which of the following statement is a true about Binary Trees?

Ops. A. The maximum number of nodes at level 'l' of a binary tree is 2^{l-1}.

B. Every binary tree is either complete or full.

C. Every full binary tree is also a complete binary tree.

D. Every complete binary tree is also a full binary tree.