

**CS201 - Introduction to Programming Midterm Paper(1) 2010**

Question No.: 1 ( Marks : 1 )

**Compiler is a****System software**

Application Software

Driver

Editor

[http://books.google.com.pk/books?id=Ajt4O4AoCtgC&pg=PA1&lpg=PA1&dq=%22compiler+is+a+system+software%22&source=bl&ots=iSKObzG2h5&sig=S\\_IIDiIOXTgnIKvxdSOJN0IZZ8o&hl=en&sa=X&ei=dtB2UOgdFeWK4gSsrIDQCQ&ved=0CEoQ6AEwBw#v=onepage&q=%22compiler%20is%20a%20system%20software%22&f=false](http://books.google.com.pk/books?id=Ajt4O4AoCtgC&pg=PA1&lpg=PA1&dq=%22compiler+is+a+system+software%22&source=bl&ots=iSKObzG2h5&sig=S_IIDiIOXTgnIKvxdSOJN0IZZ8o&hl=en&sa=X&ei=dtB2UOgdFeWK4gSsrIDQCQ&ved=0CEoQ6AEwBw#v=onepage&q=%22compiler%20is%20a%20system%20software%22&f=false)

Question No.: 2 ( Marks : 1 )

**If Num is an integer variable then Num++ means,**

Add 1 two times with Num

**Add 1 with Num**

Add 2 with Num

Subtract 2 from Num

Question No.: 3 ( Marks : 1 )

**For one byte there are \_\_\_\_\_ combinations of values that can be stored in computer.** $2^6$  $2^7$  **$2^8$**  $2^4$ 

Each bit is capable of holding two possible values, the number of possible different combinations of

values that can be stored in n bits is  $2^n$ . For example:

1 bit can hold  $2 = 2^1 = 2$  possible values (0 or 1)

2 bits can hold  $2 \times 2 = 2^2 = 4$  possible values

so 8 bits(one byte) =  $2^8 = 256$

Question No.: 4 ( Marks : 1 )

**In C/C++ language the header file which is used to perform useful task and manipulation of character data is**

cplex.h

**ctype.h pg 188**

stdio.h

delay.h

Question No.: 5 ( Marks : 1 )

**Default case in switch statement is,**

Must

**Optional**

syntax error

Necessary

<http://www.arduino.cc/en/Reference/SwitchCase>

Question No.: 6 ( Marks: 1 )

**When break statement is encountered in switch statement, it**

Stops the entire program

Stops the execution of current statement

**Exits from switch statement**

None of the given options

<http://docs.oracle.com/javase/tutorial/java/nutsandbolts/switch.html>

Question No.: 7 ( Marks: 1 )

**What will be the result of arithmetic expression  $6+27/3*3$ ?**

**33**

45

9

30

Question No.: 8 ( Marks: 1 )

**What is the correct syntax to declare an array of size 10 of int data type?**

int [10] name ;

name[10] int ;

**int name[10] ;**

int name[] ;

Question No.: 9 ( Marks: 1 )

**How many dimensions does n-dimensional array has?**

**n dimensions**

2n dimensions

(n+1) dimensions

(n-1) dimensions (Array starts from 0<sup>th</sup> element)

Question No.: 10 ( Marks: 1 )

**What will be the correct syntax to access the value of fourth element of an array using pointer ptr?**

**ptr[3]**

(ptr+3)

\*(ptr+3)

Both 1 and 3

Question No.: 11 ( Marks: 1 )

Which of the following values C++ use to represent true and false?

**1 and 0**

1 and -1

11 and 00

Any numerical value

Question No.: 12 ( Marks: 1 )

Declaring structures does not mean that memory is allocated.

**True**

False

<http://www.exforsys.com/tutorials/c-plus-plus/c-structures.html>

Question No.: 13 ( Marks: 1 )

For which array, the size of the array should be one more than the number of elements in an array?

Int

double

float

**char Pg113**

Question No.: 14 ( Marks: 1 )

If a variable is passed by value to a function and the function makes some changes to that variable then it

**Does not affect the original variable pg 83**

affects the original variable

causes syntax error

None of the given options

Question No.: 15 ( Marks: 1 )

In C/C++ the #include is called,

Header file

**Preprocessor Directive pg 269**

Statement

Function

Question No.: 16 ( Marks: 1 )

Loops are ----- Structure.

Decision

**Repetition pg 560**

Sequential

Hierarchical

Question No.: 17 ( Marks: 2 )

**Which variable will be used in inner code block if we have the same names of variable at outer code block and inner code block?**

**Pg No 91**

Question No.: 18 ( Marks: 2 )

**Which variable will be used in inner code block pointer.**

**Pg No 90**

Question No.: 19 ( Marks: 2 )

**Which standard library is included when your program reads from, or writes to, files?**

**Pg No 199**

Question No.: 20 ( Marks: 3 )

**Perform left shift operation on a binary number 0101 and write the result in binary and decimal.**

**Pg No 252**

Question No.: 21 ( Marks: 3 )

**What is difference between variable and pointer?**

**Variables Pg No 16**

**Pointers: Pg No 143**

Question No.: 22 ( Marks: 5 )

**Write a C/C++ program which defines an array of 10 elements.**

**This program should ask a number from the user and search this number in the array if the number exists in the array, it should display the location of the number otherwise display the message The number is not in the given array.**

Question No.: 23 ( Marks: 5 )

**Write a C/C++ program which defines an array of 15 elements and fill the array with string "12players2teams".This program should display that how many digits and alphabets the string "12players2teams" contains using Character handling functions.**

Question No: 1 ( Marks: 1 )

In C/C++ the string constant is enclosed

- ▶ In curly braces
- ▶ In small braces
- ▶ In single quotes
- ▶ **In double quotes**

<http://www.lugaru.com/man/String.Constants.html>

Question No.: 2 ( Marks: 1 )

For one byte there are \_\_\_\_\_ combinations of values that can be stored in computer.

$2^6$

$2^7$

**$2^8$**

$2^4$

Each bit is capable of holding two possible values, the number of possible different combinations of values that can be stored in n bits is  $2^n$ . For example: 1 bit can hold  $2 = 2^1 = 2$  possible values (0 or 1). 2 bits can hold  $2 \times 2 = 2^2 = 4$  possible values so 8 bits (one byte) =  $2^8 = 256$

Question No: 3 ( Marks: 1 )

Switch statement deals with,

- ▶ Integer data only
- ▶ float data only
- ▶ character data only
- ▶ **Integer and character data**

<http://docs.oracle.com/javase/tutorial/java/nutsandbolts/switch.html>

Question No: 4 ( Marks: 1 )

A record is a group of related \_\_\_\_\_.

- ▶ Files
- ▶ Bytes
- ▶ **Fields**
- ▶ Data

Ref 1:

[http://wps.prenhall.com/esm\\_deitel\\_javahttp\\_6/25/6592/1687696.cw/content/index.html](http://wps.prenhall.com/esm_deitel_javahttp_6/25/6592/1687696.cw/content/index.html)

Ref 2:

<http://books.google.com.pk/books?id=fCKOomc6NiYC&pg=PT721&lpg=PT721&dq=%22A+record+is+a+group+of+related+%22&source=bl&ots=gV8WAZayiV&sig=QJafvBmGwVjyAolWs2Mv60cHogY&hl=en&sa=X&ei=vap5UPLNEcSF4ASaiYDQAg&ved=0CC8Q6AEwAw>

Question No: 5 ( Marks: 1 )

C++ views each file as a sequential stream of \_\_\_\_\_.

- ▶ Bytes
- ▶ Bits
- ▶ 0's or 1's
- ▶ Words

[http://books.google.com.pk/books?id=TN9wQjDwp0C&pg=PA582&lpq=PA582&dq=C%2B%2B+views+each+file+as+a+sequential+stream+of&source=bl&ots=kD6-M5Y9Ur&sig=XYHg\\_wet5FD6RnnuySh\\_q5e49JE&hl=en&sa=X&ei=H6h5UKiuNsmk4gSbkoGoAq&ved=0CC0Q6AEwAA#v=onepage&q=C%2B%2B%20views%20each%20file%20as%20a%20sequential%20stream%20of&f=false](http://books.google.com.pk/books?id=TN9wQjDwp0C&pg=PA582&lpq=PA582&dq=C%2B%2B+views+each+file+as+a+sequential+stream+of&source=bl&ots=kD6-M5Y9Ur&sig=XYHg_wet5FD6RnnuySh_q5e49JE&hl=en&sa=X&ei=H6h5UKiuNsmk4gSbkoGoAq&ved=0CC0Q6AEwAA#v=onepage&q=C%2B%2B%20views%20each%20file%20as%20a%20sequential%20stream%20of&f=false)

Question No: 6 ( Marks: 1 )

To access the element of two dimensional array we use,

- ▶ Single referencing
- ▶ Single dereferencing
- ▶ Double dereferencing
- ▶ Double referencing Pg175

Question No: 7 ( Marks: 1 )

If it is required to copy an array to another array then,

- ▶ Both arrays must be of the same size and data type Pg 105
- ▶ Both arrays may be of different size
- ▶ Both arrays may be of different data type
- ▶ Both arrays may be of different size and type

Question No: 8 ( Marks: 1 )

The precedence of \* is higher than dot operator

- ▶ True
- ▶ False

[http://docs.realsoftware.com/index.php/Operator\\_Precedence](http://docs.realsoftware.com/index.php/Operator_Precedence)

Question No: 9 ( Marks: 1 )

Pointers works by pointing to a data type, which can be of the form,

- ▶ Integer only
- ▶ double only
- ▶ character only
- ▶ All of the given options Pg 144

Question No: 10 ( Marks: 1 )

**Which of the following data type(s) can operate on modulus operator '%'?**

- ▶ float, int
- ▶ float, double
- ▶ **int Pg 22**
- ▶ char

Question No: 11 ( Marks: 1 )

**What will be the output of following code?**

```
int x = 10 ;  
cout << "x =" << x ;
```

- ▶ 10
- ▶ "x=10"
- ▶ **x=10**
- ▶ 10=x

Question No: 12 ( Marks: 1 )

**Which looping process checks the test condition at the end of the loop?**

- ▶ for
  - ▶ while
  - ▶ **do while**
  - ▶ no looping process checks the test condition at the end
- <http://publib.boulder.ibm.com/infocenter/dmndhelp/v6rxmx/index.jsp?topic=/com.ibm.btools.help.modeler.collab.publish.doc/doc/concepts/modelements/loop.html>

Question No: 13 ( Marks: 1 )

**What will be the correct syntax of the following statement?**

ptr is a constant pointer to integer.

- ▶ const int \*ptr ;
- ▶ const \*int ptr ;
- ▶ int const \*ptr ;
- ▶ **int \*const ptr ; Pg 154**

Question No: 14 ( Marks: 1 )

**A function must always return value.**

- ▶ True
- ▶ **False**

<http://publib.boulder.ibm.com/infocenter/comphelp/v8v101/index.jsp?topic=%2Fcom.ibm.xlcpp8a.doc%2Flanguage%2Fref%2Fcplr240.htm>

Question No: 15 ( Marks: 1 )

**C is a/an \_\_\_\_\_ language**

- ▶ low level
- ▶ object based
- ▶ object oriented
- ▶ **function oriented pg 82**

Question No: 16 ( Marks: 1 )

**Assignment operator is used for \_\_\_\_\_.**

- ▶ calculation
- ▶ reading
- ▶ **assigning value to variables Pg 17**
- ▶ None of the given options.

Question No: 17 ( Marks: 2 )

**What is the difference between switch statement and if statement.**

1.if statement is used when we have to check two conditions while switch is a multi conditional control statement.

2. SWITCH statement can be executed with all cases if the “break” statement is not used whereas IF statement has to be true to be executed further.

(Answer provided by Moaaz Siddiq)

Question No: 18 ( Marks: 2 )

**What is wrong with following code and also give the reason of error?**

```
int x , y ;  
int *ptr1 = &x ;  
int *ptr2 =&y ;  
ptr1+ptr2 ;
```

**Answer:**

We need one more variable in which we put sum of ptr1 and ptr2 like

```
int z;  
z=ptr1+ptr2;
```

(Answer provided by Ferhat Qudsia)

Question No: 19 ( Marks: 2 )

**Which bit of the number is used as a sign bit?**

The most significant bit of the number is used as a sign bit (to denote the sign of the number).

(Answer provided by Ferhat Qudsia)

Question No: 20 ( Marks: 3 )

**What is the difference between tellg() and tellp() functions?**

**Pg No.215**

Question No: 21 ( Marks: 3 )

**What is difference between variable and pointer?**

**Variables Pg No 16**

**Pointers: Pg No 143**

Question No: 22 ( Marks: 5 )

**What happened when we try to copy the array 'arr1' into the array 'arr2' in the following code segment, justify your answer?**

```
main()
{
int arr1[3]={2,3,5};
int arr2[3];
arr2=arr1;
}
```

We can not copy array directly in this way (arr2=arr1;)

Each member of arr1 to be copied by each member of arr2.

We can use for loop to copy array 1 to array2

(Answer provided by Ferhat Qudsia)

Question No: 23 ( Marks: 5 )

**Differentiate between random access and sequential access file?**

**Random access file:**

Random access files are not in sequence mean its not necessary put that's thing first that written first we put any thing from file any where. So tellg() and tellp() are the two very useful functions while reading from or writing into the files at some certain position.

**Sequential access file:**

Sequential access files are simple character files. while working with the sequential access files we write in a sequence not in a random manner

(Answer provided by Ferhat Qudsia)

## CS201 - Introduction to Programming Midterm Paper(1) 2010

Question No: 1 ( Marks: 1 )

**Compiler is a**

- ▶ System software
- ▶ **Application Software**
- ▶ Driver
- ▶ Editor

[http://books.google.com.pk/books?id=Ajt4O4AoCtgC&pg=PA1&lpg=PA1&dq=%22compiler+is+a+system+software%22&source=bl&ots=iSKObzG2h5&sig=S\\_IIDilOXTgnIKvxdSOJN0IZZ8o&hl=en&sa=X&ei=dtB2UOqdFeWK4gSsrIDQCQ&ved=0CEoQ6AEwBw#v=onepage&q=%22compiler%20is%20a%20system%20software%22&f=false](http://books.google.com.pk/books?id=Ajt4O4AoCtgC&pg=PA1&lpg=PA1&dq=%22compiler+is+a+system+software%22&source=bl&ots=iSKObzG2h5&sig=S_IIDilOXTgnIKvxdSOJN0IZZ8o&hl=en&sa=X&ei=dtB2UOqdFeWK4gSsrIDQCQ&ved=0CEoQ6AEwBw#v=onepage&q=%22compiler%20is%20a%20system%20software%22&f=false)

Question No: 2 ( Marks: 1 )

**When the logical operator AND (&) combine two expressions exp1 and exp2 then the result will be true only,**

- ▶ **When both exp1 and exp2 are true Pg 246**
- ▶ When both exp1 and exp2 are false
- ▶ When exp1 is true and exp2 is false
- ▶ When exp1 is false and exp2 is true

Question No: 3 ( Marks: 1 )

**Which of the following function(s) is/are included in ctype.h header file?**

- ▶ isdigit(int c)
- ▶ isxdigit(int c)
- ▶ tolower(int c)
- ▶ **All of the above Pg 188**

Question No: 4 ( Marks: 1 )

**To access the data members of structure \_\_\_\_\_ is used.**

- ▶ **dot operator (.) pg 231**
- ▶ \* operator
- ▶ operator◇
- ▶ None of given.

Question No: 5 ( Marks: 1 )

**The address operator (&) can be used with,**

- ▶ Statement
- ▶ Expression
- ▶ **Variable Pg 149**
- ▶ Constant

Question No: 6 ( Marks: 1 )

**Both compiler and interpreter are used to translate program into machine language code.**

▶ True

▶ False

<http://readanddigest.com/what-are-the-differences-between-compiler-and-interpreter/>

Question No: 7 ( Marks: 1 )

**Missing semicolon ';' at the end of C++ statement is**

▶ Logical error

▶ **Syntax error Pg 16**

▶ Runtime error

▶ None of the given options

Question No: 8 ( Marks: 1 )

**Switch statement is an alternative of \_\_\_\_\_ statement**

▶ **multiple if**

▶ continue

▶ break

▶ goto

[http://books.google.com.pk/books?id=bjE5EHw35DkC&pg=PA239&lpg=PA239&dq=%22mutiple+if+statement+is+alnternative+of+Switch+statement+%22&source=bl&ots=0AjPQu6EZa&sig=X1QMvHuYa5Abfze3M43tSVUEbRc&hl=en&sa=X&ei=2\\_Z6UImFHofd4QTBz4HABw&ved=0CC4Q6AEwAA#v=onepage&q=%22mutiple%20if%20statement%20is%20alnternative%20of%20Swi%20tch%20statement%20%22&f=false](http://books.google.com.pk/books?id=bjE5EHw35DkC&pg=PA239&lpg=PA239&dq=%22mutiple+if+statement+is+alnternative+of+Switch+statement+%22&source=bl&ots=0AjPQu6EZa&sig=X1QMvHuYa5Abfze3M43tSVUEbRc&hl=en&sa=X&ei=2_Z6UImFHofd4QTBz4HABw&ved=0CC4Q6AEwAA#v=onepage&q=%22mutiple%20if%20statement%20is%20alnternative%20of%20Swi%20tch%20statement%20%22&f=false)

Question No: 9 ( Marks: 1 )

**Array is passed by value to a function by default.**

▶ True

▶ **False Pg 266**

Question No: 10 ( Marks: 1 )

**Which of the following is the correct function call having array named *student* of 10 elements as a parameter.**

▶ **addRecord(student[]);**

▶ addRecord(student);

▶ addRecord(student[10]);

▶ addRecord(\*student);

Question No: 11 ( Marks: 1 )

**What will be the result of expression  $x\%=2$ , if  $x = 7$ ?**

▶  **$x = 1$**

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References

- ▶ x = 3
- ▶ x = 7
- ▶ x = 2

Question No: 12 ( Marks: 1 )

**What will be the output of following code segment?**

```
main(){
int x = 5 ;
{
int x = 4 ;
cout <x
}
cout <x
}
```

- ▶ 5, 5
- ▶ 4, 4
- ▶ **4, 5**
- ▶ 5, 4

Question No: 13 ( Marks: 1 )

**Which of the following operator is used to access the value of variable pointed to by a pointer?**

- ▶ \* operator
- ▶ -> operator
- ▶ && operator
- ▶ & operator

Question No: 14 ( Marks: 1 )

**The object \_\_\_\_\_ may be used both for file input and file output**

- ▶ **fstream, Pg 199**
- ▶ ifstream,
- ▶ ofstream,
- ▶ none of the given options.

Question No: 15 ( Marks: 1 )

**What's wrong with this for loop?****for (int k = 2, k <=12, k++)**

- ▶ the increment should always be ++k
- ▶ the variable must always be the letter i when using a for loop
- ▶ there should be a semicolon at the end of the statement
- ▶ **the commas should be semicolons**

Question No: 16 ( Marks: 1 )

**Let suppose**

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References

```
Union intorDouble{
Int ival;
Double charvar;
};
main(){
intorDouble VAZ;
```

```
int size ;
size = sizeof(VAZ);
}
```

What will be the value of variable "size", if int occupies 4 bytes and double occupies 8 bytes?

- ▶ 2
- ▶ 4
- ▶ 8
- ▶ 12

Question No: 17 ( Marks: 2 )

**How a program can use a function?**

The calling program just needs to write the function name and provide its arguments (without data types). It is important to note that while calling a function, we don't write the return value data type or the data types of arguments.

Question No: 18 ( Marks: 2 )

**Which function is used to read/write more than a single character or single line while handling files?**

We use the `getline` function to read more than single character 206

Question No: 19 ( Marks: 2 )

**Suppose the pointer `yptr` is pointing to the first element of the array `y` and the size of array is 10. Can we increment the `yptr` up to 12 times? And what will happen?**

Question No: 20 ( Marks: 3 )

(i) An array `day` is declared as: `int day[] = {1, 2, 3, 4, 5, 6, 7};`

How many elements does array 'day' has?

(ii) If the declaration is changed as: `int day[7] = {1, 2, 3, 4, 5, 6, 7};`

How many elements does array 'day' has?

In both the case array `day` has the 7 elements.

Question No: 21 ( Marks: 3 )

**What is the difference between `tellg()` and `tellp()` functions?**

Pg No.215

Question No: 22 ( Marks: 5 )

**Write code which read a string not greater than 20 characters from keyboard stored it in an array Name and display it on the screen.**

Question No: 23 ( M a r k s : 5 )

**Write a C/C++ program which defines an array of 15 elements. This program changes all uppercase letters of an array into lowercase letters and all lowercase letters to uppercase using Character handling functions.**

**CS201 - Introduction to Programming Midterm Paper(4) 2010**

Question No: 1 ( M a r k s : 1 )

**C language is developed by**

- ▶ Bill Gates
- ▶ Robert Lafore
- ▶ **Dennis Ritchie Pg 12**
- ▶ Deitel & Deitel

Question No: 2 ( M a r k s : 1 )

**Which of the following choice is not an example of an int datatype?**

- ▶ 0
- ▶ -32
- ▶ 65531
- ▶ **-4.0**

Question No: 3 ( M a r k s : 1 )

**In flow chart, the symbol used for decision making is,**

- ▶ Rectangle
- ▶ Circle
- ▶ Arrow
- ▶ **Diamond Pg 51**

Question No: 4 ( M a r k s : 1 )

**Switch statement deals with,**

- ▶ Integer data only
- ▶ float data only
- ▶ character data only
- ▶ **Integer and character data**

<http://docs.oracle.com/javase/tutorial/java/nutsandbolts/switch.html>

Question No: 5 ( M a r k s : 1 )

**Default case in switch statement is,**

- ▶ Must

► **Optional**

- syntax error
- Necessary

<http://www.arduino.cc/en/Reference/SwitchCase>

Question No: 6 ( Marks: 1 )

\*doc is \_\_\_\_\_ by type.

► **Sequential File**

- Random Access File
- Data File
- Record File

Question No: 7 ( Marks: 1 )

Member function **tellg()** returns the current location of the \_\_\_\_\_ pointer.

- tellptr()
- write()
- seekg()
- **get()**

[http://enggedu.com/tamilnadu/university\\_questions/question\\_answer/be\\_nd\\_2007/3rd\\_sem/cse/cs1204/part\\_b/13\\_a\\_1.html](http://enggedu.com/tamilnadu/university_questions/question_answer/be_nd_2007/3rd_sem/cse/cs1204/part_b/13_a_1.html)

Question No: 8 ( Marks: 1 )

Dealing with structures and functions passing by reference is the most economical method

- **True**
- False

<http://mathbits.com/MathBits/CompSci/Structures/Functions.htm>

Question No: 9 ( Marks: 1 )

In C/C++ all character strings are terminated with,

- Null character
- String
- **Zero Pg 166**
- Full stop

Question No: 10 ( Marks: 1 )

Word processor is

- Operating system
- **Application software**
- Device driver
- Utility software

[http://books.google.com.pk/books?id=R5w4cJYJl5cC&pg=PA220&lpg=PA220&dq=%22Word+processor++is+an+application+software%22&source=bl&ots=YD0gggdOOr&sig=k5al9mm88OJYLVg\\_8Zf7zlvS0el&hl=en&sa=X&ei=MSN4ULreEKbd4QSn-4HYCg&ved=0CBsQ6AEwAA#v=onepage&q=%22Word%20processor%20is%20an%20application%20software%22&f=false](http://books.google.com.pk/books?id=R5w4cJYJl5cC&pg=PA220&lpg=PA220&dq=%22Word+processor++is+an+application+software%22&source=bl&ots=YD0gggdOOr&sig=k5al9mm88OJYLVg_8Zf7zlvS0el&hl=en&sa=X&ei=MSN4ULreEKbd4QSn-4HYCg&ved=0CBsQ6AEwAA#v=onepage&q=%22Word%20processor%20is%20an%20application%20software%22&f=false)

Question No: 11 ( M a r k s : 1 )

**Which of the following can not be a variable name?**

- ▶ area
- ▶ \_area
- ▶ **10area**
- ▶ area2

Question No: 12 ( M a r k s : 1 )

**Which looping process is best, when the number of iterations is known?**

- ▶ **for**
- ▶ while
- ▶ do-while
- ▶ all looping processes require that the iterations be known

[http://en.wikipedia.org/wiki/For\\_loop](http://en.wikipedia.org/wiki/For_loop)

Question No: 13 ( M a r k s : 1 )

**By default an array of characters is passed by value to a function.**

- ▶ True
- ▶ **False**

[http://books.google.com.pk/books?id=bdzzlLOJb1YC&pg=PA76&lpg=PA76&dq=in+c%2B%2B+By+default+an+array+of+characters+is+passed+by&source=bl&ots=2AEoxqdTGk&sig=wGmO\\_OHtJ8FvUAaMjyC5MG94SfM&hl=en&sa=X&ei=LFCBU13\\_IaHI4Qsq94HgBQ&ved=0CCwQ6AEwAA#v=onepage&q=in%20c%2B%2B%20By%20default%20an%20array%20of%20character%20s%20is%20passed%20by&f=false](http://books.google.com.pk/books?id=bdzzlLOJb1YC&pg=PA76&lpg=PA76&dq=in+c%2B%2B+By+default+an+array+of+characters+is+passed+by&source=bl&ots=2AEoxqdTGk&sig=wGmO_OHtJ8FvUAaMjyC5MG94SfM&hl=en&sa=X&ei=LFCBU13_IaHI4Qsq94HgBQ&ved=0CCwQ6AEwAA#v=onepage&q=in%20c%2B%2B%20By%20default%20an%20array%20of%20character%20s%20is%20passed%20by&f=false)

Question No: 14 ( M a r k s : 1 )

**Which of the following operator is used to access the address of a variable?**

- ▶ \* operator
- ▶ -> operator
- ▶ && operator
- ▶ **& operator Pg 480**

Question No: 15 ( M a r k s : 1 )

The name of an array represents address of first location of array element.

- ▶ **True Pg 120**

► False

Question No: 16 ( Marks: 1 )

Let suppose  
Union intorDouble{

```
Int ival;  
Double charvar;  
};  
main(){  
intorDouble VAZ;  
int size ;  
size = sizeof(VAZ);  
}
```

What will be the value of variable "size", if int occupies 4 bytes and double occupies 8 bytes?

- 2
- 4
- 8
- 12

Question No: 17 ( Marks: 2 )

What is the difference between for loop and while loop?

When number of iterations known we use for loop otherwise we will use while loop

Question No: 18 ( Marks: 2 )

Consider the structure  
struct Customer

```
{  
    int custnum;  
    int salary;  
    float commission;  
};
```

A programmer wants to assign 2000 for the structure member *salary* in the above example of structure *Customer* with structure variable *cust1* What line of code should he write.

Question No: 19 ( Marks: 2 )

When a pointer is incremented then how many bytes will it move to change its address?  
If an integer occupies four bytes in the memory, then the `yptr++`; will increment its value by four.  
when we increment the `yptr`, it points to the next integer in the memory

Question No: 20 ( Marks: 3 )

If there are  $2^n$  elements in an array then what would be the number of iterations required to search a number using binary search and linear search?

If an array has elements  $2n$ , then the maximum number of iterations required by binary search will be  $n$ .

Question No: 21 ( Marks: 3 )

**Perform left shift operation on a binary number 0101 and write the result in binary and decimal.**

Question No: 22 ( Marks: 5 )

**What will be the output of following code segment?**

```
void func(int [], int);
main(){
int arr[5] = {2, 3, 5, 6, 7} ;
func(arr, 5) ;
for (int i = 0; i<5; i++)
cout << arr[i] << " ";
}
void func(int a[], int size){
for (int i = 0; i<size; i++)
a[i] = 2*a[i];
}
```

Question No: 23 ( Marks: 5 )

**What is random access file and how data can be read and write into random access file?**

### CS201 - Introduction to Programming Midterm Paper(5) 2010

Question No: 1 ( Marks: 1 )

**In C/C++ the #include is called,**

- ▶ Header file
- ▶ **Preprocessor Directive pg 269**
- ▶ Statement
- ▶ Function

Question No: 2 ( Marks: 1 )

**To access the element of two dimensional array we use,**

- ▶ Single referencing
- ▶ Single dereferencing
- ▶ **Double dereferencing Pg175**
- ▶ Double referencing

Question No: 3 ( Marks: 1 )

Data Size of the file is always \_\_\_\_\_ the actual size of the file.

- ▶ Greater than
- ▶ Equal to
- ▶ Less than or equal to

▶ **None of the above Pg 216**

Similarly in case of files, the space occupied by a file (file size) can be more than the actual data length of the file itself.

Question No: 4 ( Marks: 1 )

**When an identifier is declared with keyword const then,**

- ▶ Its value can be changed during execution.
- ▶ **Its value can not be changed Pg110**
- ▶ Its value can be changed with arithmetic operator
- ▶ Its value can be overwritten

Question No: 5 ( Marks: 1 )

**In C/C++ if we define an array of size eight (8) i.e. int Arr [8]; then the last element of this array will be stored at,**

- ▶ Arr[0]
- ▶ Arr[8]
- ▶ **Arr[7]**
- ▶ Arr[-1]

Question No: 6 ( Marks: 1 )

**If it is required to copy an array to another array then,**

- ▶ **Both arrays must be of the same size and data type Pg 105**
- ▶ Both arrays may be of different size
- ▶ Both arrays may be of different data type
- ▶ Both arrays may be of different size and type

Question No: 7 ( Marks: 1 )

**In C/C++ all character strings are terminated with,**

- ▶ **Null character Pg 166**
- ▶ String
- ▶ Zero
- ▶ Full stop

Question No: 8 ( Marks: 1 )

**Let suppose**

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References

```
struct
    intorDoubli
    e {
int ival; Double
    charvar;
};
```

```
main(){
    intorDouble
    VAZ;
    int size ;
    size =
    sizeof(VAZ);
}
```

What will be the value of variable size, if int occupies 4 bytes and double occupies 8 bytes?

- ▶ 2
- ▶ 4
- ▶ 8
- ▶ 12

Question No: 9 ( Marks: 1 )

When a pointer is incremented, it actually jumps the number of memory addresses

▶ According to data type Pg 160

- ▶ 1 byte exactly
- ▶ 1 bit exactly
- ▶ A pointer variable can not be incremented

Question No: 10 ( Marks: 1 )

Do-while loop executes at least,

- ▶ Zero Time
- ▶ One Time
- ▶ Two Times
- ▶ N Times

<http://books.google.com.pk/books?id=xnEYsMiYqiMC&pg=PA521&lpg=PA521&dq=%22Do-while+loop+executes+at+least+One+Time%22&source=bl&ots=hovQ0faYdl&sig=z9IXC5Zmxt5JsWJS6aVgrd9YKq&hl=en&sa=X&ei=Yw98UNCOEoiD4qS734HoCq&ved=0CCAQ6AEwAQ#v=onepage&q=%22Do-while%20loop%20executes%20at%20least%20One%20Time%22&f=false>

Question No: 11 ( Marks: 1 )

+= , \*= , /= , etc are called,

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References**

- ▶ Assignment operators
- ▶ Logical operator
- ▶ **Compound assignment operator Pg 63**
- ▶ Unary operator

Question No: 12 ( Marks: 1 )

**Computer can understand only machine language code.**

▶ **True Pg 12**

▶ False

**Which of the following is the correct syntax to print multiple values or variables in a single command using cout?**

- ▶ cout <
- ▶ cout <
- ▶ cout <
- ▶ cout <

Question No: 14 ( Marks: 1 )

**The compilers and interpreters also belong to the System Software category.**

▶ **True Pg 11**

▶ False

Question No: 15 ( Marks: 1 )

**Editors are used to compile the code.**

- ▶ True
- ▶ **False**

Compilers are used for compilation of source codes, However Editors are used to write the source codes.

Question No: 16 ( Marks: 1 )

**The variables having a name, type and size are just like empty boxes.**

- ▶ **True**
- ▶ False

Question No: 17 ( Marks: 1 )

**What will be the result of the statement**

`rand ( ) % 50`

When 50 divides any number, the remainder will always be less than 50.

Question No: 18 ( Marks: 1 )

**What is the ASCII code of null character**

The ASCII code of **null** character 00.

**Ref"** <http://www.theasciicode.com.ar/ascii-control-characters/null-character-ascii-code-0.html>

Question No: 19 ( Marks: 2 )

**What is a truth Table?**

A truth table is a mathematical table used in logic—specifically in connection with Boolean algebra, Boolean functions, and propositional—to compute the functional values of logical expressions on each of their functional arguments, that is, on each combination of values taken by their logical variables .In particular, truth tables can be used to tell whether a propositional expression is true for all legitimate input values, that is, logically valid.

Question No: 20 ( Marks: 3 )

**How learning to design programs is like play soccer?**

Learning to design programs is like learning to play soccer. A player must learn to trap a ball, to dribble with a ball, to pass, and to shoot a ball. Once the player knows those basic skills, the next goals are to learn to play a position, to play certain strategies, to choose among feasible strategies, and, on occasion, to create variations of a strategy because none fits.

Question No: 21 ( Marks: 5 )

**What is the purpose of the default statement**

The default statement is optional. If there is no case which matches the value of the switch statement, then the statements of default are executed.

Question No: 22 ( Marks: 10 )

**Write a program which contains a user defined f takes 3 integer arguments hours, minutes and seconds and returns the number of seconds.**

**ConvertInSeconds** that

Input variables hours , minutes and seconds in main program and call the fun **ConvertInSeconds**and display the number of seconds returned by function.

**Hint:**

1 hour =60 minutes

1 minute =60 seconds