MIDTERM EXAMINATION
Spring 2010

Question No: 1 (Marks: 1) - Please choose one
In order to get 256 from the number 2568 we divide this number by 10 and take,

- ► Its remainder
- ► The number
- ► **Its quotient**
- ► Its divisor

Question No: 2 (Marks: 1) - Please choose one
The correct syntax of do-while loop is,

- ► (condition) while; do { statements; };
- ► { statements; } do-while ();
- ► while(condition); do { statements; };
- ► **do { statements; } while (condition);**

Question No: 3 (Marks: 1) - Please choose one
Which of the following function(s) is/are included in **stdlib.h** header file?

- ► double atof(const char *nptr)
- ► int atoi(const char *nptr)
- ► char *strcpy (char *s1, const char *s2)
- ► **1 and 2 only (Pg 191)**

Question No: 4 (Marks: 1) - Please choose one
If the break statement is missed in switch statement then,

- ► The compiler will give error
- ► **This may cause a logical error (Pg 76)**
- ► No effect on program
- ► Program stops its execution

Question No: 5 (Marks: 1) - Please choose one

The data type before a function name represents its,

- ► **Return Type (Pg 499)**
- ► Function data
- ► Function arguments
- ► Function name

Question No: 6 (Marks: 1) - Please choose one

Member function tellg() returns the current location of the_____ pointer.

- ► tellptr()
- ► write()
- ► seekg()
- ► **get() (Pg 215)**

Question No: 7 (Marks: 1) - Please choose one

What does 5 | 6 , evaluate to in decimal where '|' is bitwise OR operator?

□□□□□□□►3
□□□□□□□►4
□□□□□□□►5
□□□□□□□►7

5 | 6 =
0 1 0 1
0 1 1 0
----
0 1 1 1 = 7

Question No: 8 (Marks: 1) - Please choose one

_____ C is widely known as development language of_____operating system.

- ► Linux
- ► Windows
- ► **Unix (Pg 12)**
- ► Mac OS

Question No: 9 (Marks: 1) - Please choose one

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

- ► 33
- ► 45

► 9

► 30

Question No: 10 (Marks: 1) - Please choose one

How many bytes are occupied by declaring following array of characters?

char str[] = "programming";

► 10
► 11
► **12**
► 13

Question No: 11 (Marks: 1) - Please choose one

What will be the correct syntax for initialization of pointer ***ptr*** with string "programming"?

► char ptr = 'programming' ;
► **char *ptr = "programming" ;**
► char *ptr = 'programming' ;
► *ptr = "programming" ;

pg 166
array element in each array initialized with a single character enclosed in single quote.
pg 21
While assigning a character value to a char type variable single quotes are used around the character as 'a'.

Question No: 12 (Marks: 1) - Please choose one

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

□□□□□□□►**x = 1**
□□□□□□□►x = 3
□□□□□□□►x = 7
□□□□□□□►x = 2

Question No: 13 (Marks: 1) - Please choose one

UNIX has been developed in_____language.

□□□□□□□►JAVA
□□□□□□□►B
□□□□□□□►**C (pg 12)**
□□□□□□□►FORTRAN

Question No: 14 (Marks: 1) - Please choose one

Declaring structures does not mean that memory is allocated.

□□□□□□□►**True (Pg 229)**
□□□□□□□►False

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

Question No: 15 (Marks: 1) - Please choose one
What will be the value of i and j in the following code segment?
int i, j ;
int x[5] = {2, 3, 4, 8, 9} ;
int *ptr =&x[2];
i = (*ptr)++ ;
j = *ptr++ ;

□□□□□□□►i = 5, j = 5
□□□□□□□►i = 5, j = 8
□□□□□□□►i = 4, j = 8
□□□□□□□►i = 5, j = 9

Question No: 16 (Marks: 1) - Please choose one
When an array element is passed to a function, it is passed by ----------.

□□□□□□□► reference (Pg 266)
□□□□□□□► data type
□□□□□□□► value
□□□□□□□► data
When we pass ordinary variables to functions, they are passed by value because of the default behavior. But when an array is passed to a function, the default behavior changes and array is passed by reference

MIDTERM EXAMINATION 2010

Question No: 1 (Marks: 1) - Please choose one
What is the output of the following statement?
int i = 2.5; do { cout i * 2; } while (i > 3 && i < 10);
(a) 510
(b) 5
(c) 48
(d) error

Question No: 2 (Marks: 1) - Please choose one
What does !(7) evaluate to in decimal where ! is a NOT operator?
(a) 7
(b) 8
(c) 9
(d) 10

Question No: 3 (Marks: 1) - Please choose one
The condition in while loop may contain logical expression but not relational expression.
(a) True
(b) False

Question No: 4 (Marks: 1) - Please choose one
Searching is easier when an array is already sorted
(a) True
(b) False

Question No: 5 (Marks: 1) - Please choose one
If an array has 100 elements, what is allowable range of subscripts?
(a) 0 - 99
(b) 1 - 99
(c) 0 - 100
(d) 1 - 100

Question No: 6 (Marks: 1) - Please choose one
What will be the value of 'a' and 'b' after executing the following statements?
a = 3;
b = a++;

(a) 3, 4
(b) 4, 4
(c) 3, 3
(d) 4, 3

Question No: 7 (Marks: 1) - Please choose one
What will be the correct syntax to initialize all elements of two-dimensional array to value 0?
(a) int arr[2][3] = {0,0} ;
(b) int arr[2][3] = {{0},{0}} ;
(c) int arr[2][3] = {0},{0} ;
(d) int arr[2][3] = {0} ;

Question No: 8 (Marks: 1) - Please choose one
Which of the following functionreturns the size of a string variable?

(a) strlength()
(b) stringlen()
(c) strlen()
(d) strLength()

When applied to a character array, the strlen function returns the length of the string stored there,

not its allocated size.
http://www.gnu.org/s/hello/manual/libc/String-Length.html

Question No: 9 (Marks: 1) - Please choose one
What will be the range of numbers generated by function rand () % 9?
(a) 0 to 9
(b) 1 to 9
(c) 0 to 8
(d) 1 to 8

Question No: 11 (Marks: 1) - Please choose one
Computer can understand only machine language code.
(c) True
(d) False

Question No: 13 (Marks: 1) - Please choose one
What does 5 ^ 6 , evaluate to in decimal where '^' is Exclusive OR operator?
(a) True
(b) **False**
Detail:-
It mean
5 = 0101
6 = 0110
5 ^ 6 = 0011
If both input is same then the output is 0 and if different then output is 1

Question No: 14 (Marks: 1) - Please choose one
If the file is not properly closed in the program, the program_____.

(a) Terminate normally
(b) Indicate Runtime error
(c) Indicate Compile time error
(d) Crashes

Eventually run out of file handles and/or memory space and crash.)
http://www.codingunit.com/c-tutorial-file-io-using-text-files

Question No: 15 (Marks: 1) - Please choose one
Which of the following header file include string conversion functions?

(a) string.h
(b) stdlib.h (Pg 190)
(c) ctype.h
(d) sconvert.h

MIDTERM EXAMINATION
2009

Question No: 1 (Marks: 1) - Please choose one
A precise sequence of steps to solve a problem is called
- Statement
- **Program**
- Utility
- Routine

Question No: 2 (Marks: 1) - Please choose one
The Compiler of C language is written in
- Java Language
- UNIX
- FORTRON Language
- **C Language**

Question No: 3 (Marks: 1) - Please choose one
Initialization of variable at the time of definition is,
- Must
- Necessary
- **Good Programming**
- None of the given options

Question No: 4 (Marks: 1) - Please choose one
In if structure the block of statements is executed only,
- When the condition is false
- When it contain arithmetic operators
- When it contain logical operators
- **When the condition is true**

Question No: 6 (Marks: 1) - Please choose one
Dealing with structures and functions passing by reference is the most economical method
- **True**
- False

Question No: 7 (Marks: 1) - Please choose one
Pointer is a variable which store,
- Data
- **Memory Address**
- Data Type
- Values

Question No: 8 (Marks: 1) - Please choose one
Preprocessor program perform its function before_____phase takes place.

- Editing

- Linking
- **Compiling**
- Loading

Question No: 9 (Marks: 1) - Please choose one
Which of the following can not be a variable name?
- area
- _area
- **10area**
- area2

Question No: 10 (Marks: 1) - Please choose one
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
-

Question No: 11 (Marks: 1) - Please choose one
Which character is inserted at the end of string to indicate the end of string?
- new line
- tab
- **null**
- carriage return

Question No: 13 (Marks: 1) - Please choose one
Which of the following header file defines the **rand()** function?
- iostream.h
- conio.h
- **stdlib.h**
- stdio.h

Question No: 14 (Marks: 1) - Please choose one
Commenting the code _____
- **Makes a program easy to understand for others.**
- Make programs heavy, i.e. more space is needed for executable.
- Makes it difficult to compile
- All of the given options.

Question No: 15 (Marks: 1) - Please choose one
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) - Please choose one
For which array, the size of the array should be one more than the number of elements in an array?

- int
- double
- float
- **char**

MIDTERM EXAMINATION
2009

Question No: 1 (Marks: 1) - Please choose one
The function of cin is
► To display message
► **To read data from keyboard**
► To display output on the screen
► To send data to printer

Question No: 2 (Marks: 1) - Please choose one
In C/C++ language the header file which is used to perform useful task and manipulation of character data is
► cplext.h
► **ctype.h (Pg 188)**
► stdio.h
► delay.h

Question No: 3 (Marks: 1) - Please choose one
How many parameter(s) function getline() takes?
► 0
► 1
► 2
► 3
The member function getline() also takes three parameters: the buffer to fill, one more than the maximum number of characters to get, and the termination character. getline()functions exactly like get() does with these parameters, except getline() throws away the terminating character.
http://newdata.box.sk/bx/c/htm/ch16.htm
.

Question No: 4 (Marks: 1) - Please choose one
Word processor is
► Operating system
► **Application software**

► Device driver

► Utility software

Question No: 5 (Marks: 1) - Please choose one
For which values of the integer _value will the following code becomes an infinite loop?
int number=1;
while (true) {
cout << number;
if (number == 3) break;
number += integer_value; }
► any number other than 1 or 2
► **only 0**
► only 1
► only 2
Rational:
number += integer_value .....above line decide the fate of loop so any thing other then zero leads to value of 3 which will quite the loop. Only zero is the value which keeps the loop infinite.

Question No: 6 (Marks: 1) - Please choose one
Each pass through a loop is called a/an
► enumeration
► **Iteration**
► culmination
► pass through

Question No: 7 (Marks: 1) - Please choose one
A continue statement causes execution to skip to
► the return 0; statement
► the first statement after the loop
► the statements following the continue statement
► **the next iteration of the loop**
Continue statement is used, when at a certain stage, you don't want to execute the remaining statements inside your loop and want to go to the start of the loop.

Question No: 8 (Marks: 1) - Please choose one
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) - Please choose one
Consider the following code segment. What will the following code segment display?
int main(){
int age[10] = {0};
cout << age ;

}

► Values of all elements of array

► **Value of first element of array**

► Starting address of array

► Address of last array element

Question No: 11 (Marks: 1) - Please choose one

How many bytes will the pointer ***intPtr*** of type **int** move in the following statement?

intPtr += 3 ;

► 3 bytes

► 6 bytes

► **12 bytes**

► 24 bytes

one int is 4 bytes so 4*3 = 12 bytes movement.

Question No: 12 (Marks: 1) - Please choose one

If there are 2(n+1) elements in an array then what would be the number of iterations required to search a number using binary search algorithm?

► n elements

► **(n+1) elements**

► 2(n+1) elements

► 2(n+1) elements

Question No: 13 (Marks: 1) - Please choose one

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) - Please choose one

The_____statement interrupts the flow of control.

► switch

► continue

► goto

► **break**

Question No: 15 (Marks: 1) - Please choose one

Analysis is the---------- step in designing a program

► Last

► Middle

► Post Design

► **First**

Analysis will be always followed by design and then code.

Question No: 16 (Marks: 1) - Please choose one

Paying attention to detail in designing a program is _____

► Time consuming

► Redundant
► **Necessary**
► Somewhat Good

In programming, the details matter. This is a very important skill. A good programmer always analyzes the problem statement very carefully and in detail. You should pay attention to all the aspects of the problem.

MIDTERM EXAMINATION
Spring 2009

Question No: 1 (Marks: 1) - Please choose one_____
There are mainly ---------- types of software
► **Two**
► Three
► Four
► Five
Software is categorized into two main categories

- **System Software**
- **Application Software**

Question No: 2 (Marks: 1) - Please choose one_____
In C/C++ the #include is called,
► Header file
► **Preprocessor Directive (Pg 15)**
► Statement
► Function

Question No: 3 (Marks: 1) - Please choose one_____
&& is ----------operator.
► An arithmetic
► **Logical**
► Relational
► Unary
we use logical operators (&& and ||) for AND and OR respectively with relational operators.

Question No: 4 (Marks: 1) - Please choose one_____
In flow chart, the symbol used for decision making is,
► Rectangle
► Circle
► Arrow
► **Diamond (Pg 51)**
http://www.ehow.com/about_5081911_symbols-used-flowchart.html

Question No: 6 (Marks: 1) - Please choose one_____
C++ views each file as a sequential stream of_____.

► **Bytes**

► Bits
► 0's or 1's
► Words

Question No: 7 (Marks: 1) - Please choose one_____
If the elements of an array are already sorted then the useful search algorithm is,
► Linear search
► Binary search (Pg 188)
► Quick search
► Random search
In binary search algorithm, the 'divide and conquer' strategy is applied.
This plies only to sorted arrays in ascending or descending order.

Question No: 8 (Marks: 1) - Please choose one_____
The address operator (&) can be used with,
► Statement
► Expression
► Variable
► Constant

Question No: 9 (Marks: 1) - Please choose one_____
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: 11 (Marks: 1) - Please choose one_____
Call by reference mechanism should be used in a program when there is
i. large amount of data to be passed
ii. small amount of data to be passed
iii. need to change the passed data
iv. no need to change the passed data
Choose the appropriate option for the above case.
► (i) and (ii) only
► (i) and (iii) only
► (ii) and (iii) only
► (ii) and (iv) only

Question No: 12 (Marks: 1) - Please choose one_____
Which of the following is the starting index of an array in C++?
►0
►1
►-1
► any number

Question No: 13 (Marks: 1) - Please choose one_____
The return type of a function that do not return any value must be _____
► int
► **void**
► double
► float

Question No: 14 (Marks: 1) - Please choose one_____
Which of the following is an extension of header file?
► .exe
► .txt
► **.h**
► .c

Question No: 15 (Marks: 1) - Please choose one_____
We want to access array in random order which approach is better?
► **Pointers**
► **Array index (Pg 176)**
► Both pointers and array index are better
► None of the given options.

Question No: 16 (Marks: 1) - Please choose one_____
When we declare a multidimensional array the compiler store the elements of multidimensional array in the form of,
► Columns
► Rows
► **Contiguous memory location (Pg 174)**
► Matrix

MIDTERM EXAMINATION 2009

Question No: 1 (Marks: 1) - Please choose one

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) - Please choose one

The size of int data type is

► 1 bytes
► 2 bytes
► 3 bytes
► **4 bytes (Pg 257)**

Question No: 3 (Marks: 1) - Please choose one
In Flow chart process is represented by
► **Rectangle (Pg 51)**
► Arrow symbol
► Oval
► Circle

Question No: 5 (Marks: 1) - Please choose one
When we are using const keyword with a variable x then initializing it at the time of declaration is,
► **Must**
► Optional
► Not necessary
► A syntax error

Question No: 6 (Marks: 1) - Please choose one
Which of the following is the correct way to assign an integer value 5 to element of a matrix say 'm' at second row and third column?
► **m[2][3] = 5 ;**
► m[3][2] = 5 ;
► m[1][2] = 5 ;
► m[2][3] = '5';

Question No: 7 (Marks: 1) - Please choose one
How many total elements must be in two-dimensional array of 3 rows and 2 columns?
► 4
► 5
► **6 (3*2=6)**
► 7

Question No: 8 (Marks: 1) - Please choose one

Which of the following is the correct statement for the following declaration?

const int *ptr.

- ptr is a constant pointer
- ptr is constant integer pointer
- ptr is a constant pointer to int
- **ptr is a pointer to const int** http://www.allinterview.com/showanswers/65662.html

Question No: 9 (Marks: 1) - Please choose one

Consider the following code segment. What will be the output of this code segment?

```
int arr[6] = {2, 3, 7, 4, 5, 6} ;
int  *ptr1  =&arr[1]  ;
int *ptr2  =  &arr[4] ;
cout << (ptr2-ptr1) ;
```

► 3
► 9
► 12
► **2**

Question No: 10 (Marks: 1) - Please choose one
What will be the correct syntax to assign an array named arr of 5 elements to a pointer ptr?
► *ptr = arr ;
►ptr = arr ;
►*ptr = arr[5] ;
►ptr = arr[5] ;

Question No: 11 (Marks: 1) - Please choose one
C is a/an_____language
►low level
►object based
► object oriented
►**function oriented** **(Pg 77)**

Question No: 13 (Marks: 1) - Please choose one
The variables having a name, type and size are just like empty boxes.
► False
► **True**

Question No: 15 (Marks: 1) - Please choose one
Most efficient method of dealing with structure variables is to define the structure globally

► True http://mathbits.com/mathbits/compsci/Structures/Define.htm
► False

Question No: 16 (Marks: 1) - Please choose one
Syntax of union is identical to _____
► **Structure (pg 242)**
► Class
► Function
► None of the given options

MIDTERM EXAMINATION
2008

Question No: 16 (Marks: 1) - Please choose one

_____ In Program commenting the code liberally is
► Useful.
► Time consuming
► Not necessary

Question :If we want to store a string "abc" in an array str then the size of this array must be at least,
(a) 2
(b) 3
(c) 4
(d) 5

Question :How many bytes will the pointer ***intPtr*** of type **int** move in the following statement?
intPtr += 3 ;

(a) 3 bytes
(b) 6 bytes
(c) 12 bytes
(d) 24 bytes

MIDTERM EXAMINATION
2007

Question :The remainder (%) operator is,
► **An arithmetic operator (Pg 258)**
► A logical operator
► A relational operator

► A division operator

Question :When a call to function statement is encountered,

► The control is transfer to its Prototype

► **The control is transfer to its definition**

► The compiler stop execution of whole program

► The program hangs

MIDTERM EXAMINATION
2006

Question :The value of 2*15/3*7+3*2 is

- 146
- 76
- 8
- 70

Question: Carefully analyze the following lines of code and chose the correct option.

```
ch1="a";
ch2='a';
```

- ch1 and ch2 are strings
- **ch1 is string and ch2 is character**
- ch2 is string and ch1 is character
- ch1 and ch2 are characters

Question :The size of a double variable is

- 2 bytes
- 4 bytes
- **8 bytes**
- 10 bytes

The size of an int is: 4 bytes.
The size of a short int is: 2 bytes.
The size of a long int is: 4 bytes.
The size of a char is: 1 bytes.
The size of a float is: 4 bytes.
The size of a double is: 8 bytes.

Question :An array is also called

- an array variable
- array declaration
- struct
- **constant pointer**