CS201 Midterm Solved Papers MCQs

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
Searching is easier when an array is already sorted
(a) True
(b) False
Question No: 3 (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: 4 (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: 5 (Marks: 1) – Please choose one
Which of the following function returns the size of a string variable?
(a) strlength()
(b) stringlen()
(c) strlen()
(d) strLength()
Question No: 6 (Marks: 1) – Please choose one
Computer can understand only machine language code.
(c) True
(d) False
Question No: 7 (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: 8 (Marks: 1) – Please choose one
Which of the following header file include string conversion functions?
(a) □ string.h
(b) □ stdlib.h
(c) □ ctype.h
(d) □ sconvert.h
Question No: 9 (Marks: 1)
What is meant by C++ statement: const int *ptr = &x;
Solution:-
ptr is a pointer to data of type const int type. And to assign the address of x to
pointer ptr
Question No: 10 (Marks: 2)
What is a truth Table?
Solution:-
We know the concept of truth table. The truth tables are very important. These are still a tool
available for analyzing logical expressions. We will read logic design in future, which is actually
to do with chips and gate. We find it difficult to evaluate a complicated logical expression.
Sometimes the logic becomes extremely complicated so that even
writing it as a simple syntax statement in any language.
Question No: 11 (Marks: 5)
What are similarities and differences between Structures and Unions?
In structures, we have different data members and all of these have their own memory space. In
union, the memory location is same while the first data member is one name for that memory
location. However, the 2nd data member is another name for the same location and so on.
Consider the above union (i.e. intOrChar) that contains an integer and a character as data
members. What will be the size of this union? The answer is the very simple. The union will be
allocated the memory equal to that of the largest size data member. If the int occupies four bytes
on our system and char occupies one byte, the union intOrChar will occupy four bytes.

Question No: 12 (Marks: 1) – Please choose one
The function of cin is
(a) To display message
(b) To read data from keyboard
(c) To display output on the screen
(d) To send data to printer
Question No:13 (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
(a) cplext.h
(b) ctype.h
(c) stdio.h
(d) delay.h
Question No: 14 (Marks: 1) – Please choose one
Each pass through a loop is called a/an

(a) enumeration
(b) Iteration
(c) culmination
(d) pass through
Question No:15 (Marks: 1) – Please choose one
What is the correct syntax to declare an array of size 10 of int data type?
(a) int [10] name ;
(b) name[10] int ;
(c) int name[10] ;
Question No: 16 (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: 17 (Marks: 1) – Please choose one
Which of the following operator is used to access the value of variable pointed to by a pointer?
(a) * operator
(b) -> operator
(c) && operator
(d) & operator
Question No: 18 (Marks: 1) – Please choose one
Analysis is the ————— step in designing a program
(a) Last
(b) Middle
(c) Post Design
(d) First
Question No: 19 (Marks: 1) – Please choose one
Paying attention to detail in designing a program is _____
(a) Time consuming
(b) Redundant
(c) Necessary
(d) Somewhat Good
Question No: 20 (Marks: 1)
Which programming tool is helpful in tracing the logical errors?
Debugger tool is helpful in tracing the logical errors.

Question No: 21 (Marks: 1)
Give the syntax of opening file 'myFile.txt' with 'app' mode using ofstream variable 'out'.
ofstream outfile;
outfile.open ("myFile.txt "); // Open the file

Question No: 22 (Marks: 2)
What is the difference between switch statement and if statement.
In switch statement only one variable can be tested on various condition but using if we
can tested multi variables in single statement.

Q.23 The while loop becomes infinite,
(a) When the condition is always false
(b) . When the condition is less than zero
(c) When the condition is always true
(d) When the condition contains a logical operator
Q.24: Which of the following function(s) is/are included in stdlib.h header file?
(a) double atof(const char *nptr)
(b) int atoi(const char *nptr)
(c) char *strcpy (char *s1, const char *s2)
(d) 1 and 2 only
Q.25: 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
Q.26: No executable code will be generated if error is found during translation of the program
using interpreter.
(a) True
(b) False
Q27: Word processor is
(a) Operating system
(b) Application software
(c) Device driver
(d) Utility software
Q.28: Which of the following is correct way to initialize a variable x of int type with value 10?
(a) int x ; x = 10 ;
(b) int x = 10 ;
(c) int x, x = 10;
(d) x = 10 ;

Q.29: If there is more than one statement in the block of a for loop, which of the following must
be placed at the beginning and the ending of the loop block?
(a) parentheses ( )
(b) braces { }
(c) brackets [ ]
(d) arrows < >

Q30: Name of an array is a constant pointer.
(a) True
(b) False

Q.31: Loader loads the executable code from hard disk to main memory.
(a) True
(b) False
Q.32: Which of the following is used with bit manipulation?
(a) Signed integer
(b) Un-signed integer
(c) Signed double
(d) Un-signed double
Q.33 : Which of the follwoing values C++ use to represent true and false?
(a) 1 and 0
(b) 1 and -1
(c) 11 and 00
(d) Any numerical value
Q.34: Write a recursive function that takes character array and starting subscript as arguments. In each recursive call, the function should display the string from subscript to the end of string. The starting subscript in first call should be 0. In each successive call, the subscript should increse by one and function should print the array from subscript to the end of string. The function should stop processing and return when null character encounters.
Suppose the char string passed to the function is, "SampleString", then the function will print output as follows,
SampleString
ampleString
mpleString
pleString
so on…

Question No: 35 (Marks: 1) – Please choose one
A precise sequence of steps to solve a problem is called
   ▯ Statement
   ▯ **Program**
   ▯ Utility
   ▯ Routine
Question No: 36 (Marks: 1) – Please choose one
The Compiler of C language is written in
   ▯ Java Language
   ▯ UNIX
   ▯ FORTRON Language
   ▯ **C Language**
Question No: 37 (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: 38 (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: 39 (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**

Question No: 40 (Marks: 1) – Please choose one

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

- **True**
- False

Question No: 41 (Marks: 1) – Please choose one

Preprocessor program perform its function before _____ phase takes place.

- Editing
- Linking
- **Compiling**
- Loading

Question No: 42 (Marks: 1) – Please choose one

Which of the following can not be a variable name?

- area
- _area
- **10area**
- area2

Question No: 43 (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: 44 (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: 45 (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

What will be the output of the following segment of C++ code?

```
int A[5] = {1 , 2, 3, 4};
int i;
for (i=0; i<5; i++)
{
A[i] = 2*A[i];
cout << A[i] << " ";
}
```

ANS
2 4 6 8 0

Q46: In C/C++ the string constant is enclosed
(a) In curly braces
(b) In small braces
(c) In single quotes
(d) In double quotes

Q47: In flow chart, the symbol used for decision making is,
a) Rectangle
b) Circle
c) Arrow
d) Diamond

Q48 The operator used to take the address of a variable is,
(a) &&
(b) ++
(c) –
(d) &

Q49: The header file which is used for input and output is
(a) maths.h
(b) string.h
(c) iostream.h
(d) ctype.h

Q50: When we are using command line argument(s), the default argument in C/C++ is/are _____ .
a) argc
b) argd
c) argv
d) argc and argv

Q51: In C++, Integer calculation occurs in _____ bytes.
a) 1 byte
b) 2 bytes

c) 4 bytes
d) 8 bytes
Q52: In the declaration of two dimensional array,
(a) First index represents row and second represents column
(b) First index represents column and second represents row
(c) Both indexes represent rows
(d) Both indexes represent column
Q53: The address operator (&) can be used with,
a) Statement
b) Expression
c) Variable
d) Constant
Q54: Which of the following data type(s) can operate on modulus operator '%'?
a) float, int
b) float, double
c) int
d) char
Q55: What will be the result of the expression z = x % y, if x = 19 and y = 4?
a) 3
b) 4
c) 15
d) 19
Q56: Which character is inserted at the end of string to indicate the end of string?
a) new line
b) tab
c) null
d) carriage return
Q57: 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++ ;
a) i = 5, j = 5
b) i = 5, j = 8
c) i = 4, j = 8
d) i = 5, j = 9
Q58: Syntax of union is identical to _____
a) Structure
b) Class
c) Function
d) None of the given options
Q59: Give the general syntax of definition of structure.
ANS
struct Name
{

// body of the structure
};
Q60: Write the General syntax for the definition of a user defined function. (2)
ANS
return data type Function Name (parameter list with data type)
{
// definition body
}
Q61: What will be the output of following code segment? (3)
int x[5] = {2, 4, 5, 7, 1} ;
int *ptr =&x[2];
cout << (*ptr)++ <<" " ;
cout << *ptr++ ;
ANS
5 6
Q62 : Detect and correct compile time error(s) in the following code.

Hints: The following code pass a value to a function by Reference and print
the value before and after pass. (5)
ANS
int test (int &x)
{
*x = *x + 200;
return x;
}
main()
{
int x = 100;
cout <<" x = " <<x;
test (*x); // //invalid type of argument uniary
cout<<endl<< " x = " <<x;
getch();
return 0;
}
Q63 : Write a C/C++ program which calculates the aggregate of a student.
The aggregate can be calculated by the formula: (10)
Aggregate = (Matrix_marks*2 + Fsc_marks*4) / 24
If the aggregate of a student is less than 150 then the program should display
message
"You can not be admitted to VU" otherwise display the message
"Congratulation! You admitted in VU "
ANS
#include<iostream.h>
#include<conio.h>
main()
{

```
int m,f;
float a;
m=254;
f=340;
a = ((m*2) + (f*4))/24;
if(a < 150)
{
cout <<"You can not be admitted to VU";
}
else
{
cout <<"Congratulation! You admitted in VU ";
}
//Aggregate = (Matrix_marks*2 + Fsc_marks*4) / 24
getche();
}
```

Q64: What is function of cout ?
(a) To send data to printer
(b) To read data from keyboard
(c) To display message
(d) To display output on the screen
Q65: In Flow chart process is represented by
(a) Rectangle
(b) Arrow symbol
(c) Oval
(d) Circle
Q66 : && is ——————— operator.
(a) An arithmetic
(b) Logical
(c) Relational
(d) Unary
Q67: An over Flow condition occurs when we try to assign a value to a variable which is,
(a) Less than its maximum size
(b) Greater than its maximum size
(c) With in its range
(d) Equal to its size
Q68: For dereferencing an array element using pointer, we use the operator
(a) &
(b) *
(c) /
(d) +
Q69: In the declaration of two dimensional array,
(a) First index represents row and second represents column
(b) First index represents column and second represents row
(c) Both indexes represent rows

(d) Both indexes represent column

Q70: Which of the following data type(s) can operate on modulus operator '%'?

(a) float, int

(b) float, double

(c) int

(d) char

Q71: Which of the following is the correct way to declare a variable x of integer type?

(a) x int ;

(b) integer x ;

(c) int x;

(d) x integer

Q72 : Which of the following can not be a variable name?

(a) area

(b) _area

(c) 10area

(d) area2

Q73 : Which of the function call is call by value for the following function prototype?

float area (int);

(a) area(&num) ;

(b) area(num) ;

(c) area(int num) ;

(d) area(*num) ;

Q73: 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

Q74: What will be the correct syntax to declare two-dimensional array of float data type?

(a) float arr{2}{2} ;

(b) float arr[2][2] ;

(c) float arr[2,2] ;

(d) float[2][2] arr ;

Q75: When a function finishes its execution then,

(a) The control return to its Prototype

(b) The control returns to its definition

(c) Control returns to statement following function call

(d) The compiler stop execution of whole program

Q76: Consider the following statements to initialize a two-dimensional array.

i. int arr[2][3] = {4, 8, 9, 2, 1, 6} ;

ii. int arr[3][2] = {4, 8, 9, 2, 1, 6} ;

iii. int arr[][2] = {{4,8},{9, 2},{1, 6}} ;

Which of the following option(s) are correct to initialize a two-dimensional array with 3 rows and 2 columns?

(a) (ii) only

(b) (iii) only

(c) (ii) and (iii)

(d) (i) and (iii)

Q77: Editors are used to compile the code.

(a) True

(b) False

Q78: Write down the general syntax of switch statement. (22)

ANS

```
switch ( variable/expression )
{
case constant1 : statementLlist1 ;
case constant2: statementLlist1 ;
default: statementLlist1 ;
}
```

Q80: What will be the output of following code segment? (3)

```
int x[5] = {2, 4, 5, 7, 1} ;
int *ptr =&x[2];
cout << (*ptr)++ <<" " ;
cout << *ptr++ ;
```

ANS

5 6

Q81 : What is the difference between compiler and interpreter? (5)

ANS

compiler and interpreter are system software but the difference is that the complier compile the whole program but the interpreter is complied line by line. Compiler are efficient in performance.

Q82 :Write a recursive function that takes three arguments (an integer array, starting subscript 's' and ending subscript 'e'). In first recursive call, the function should display the array from subscript 's' (s = 0) to 'e' (e = size of array). In each successive call, the function should print the array from index s+1 to e. The function should stop processing and return when starting subscript becomes equal to ending subscript. For example, if user enters values for array 2, 3, 4, 5, 6 then the recursive function must display the following output.

2 3 4 5 6

3 4 5 6

4 5 6

5 6

6

ANS

```
#include<iostream.h>
#include<conio.h>
void recursive(int [],int,int);
void main()
{
int array[5];
for(int i=0;i<5;i++)
{
cout<<"\nEnter the "<<i<<" Index number :";
```

```
cin>>array[i];
}
recursive(array,0,4); //0 is the starting index and 4 is the ending subscript
getche();
}
void recursive(int arr[],int s,int e)
{
if(s!=e+1)
{
for(int i=s;i<=e;i++)
cout<<arr[i]<<"\t";;
cout<<endl;
s++;
recursive(arr,s,e); //Recursive call
}
}
```

Q83: What is function of cout ?
(a) To send data to printer
(b) To read data from keyboard
(c) To display message
(d) To display output on the screen

Q84: < , <= , > , >= are called ———————————— operators.
(a) Logical
(b) Arithmetic
(c) Relational
(d) Conational

Q85: In while loop the loop counter must be initialized,
(a) With in the loop
(b) Before entering the loop
(c) At the end of the loop
(d) None of the given options

Q86 : Data Size of the file is always _____ the actual size of the file.
(a) Greater than
(b) Equal to
(c) Less than or equal to
(d) None of the above

Q87 : The precedence of * is higher than dot operator (.)operator
(a) True
(b) False

Q88 : Let ptr1 and ptr2 are pointer variables that points to integer data type then which one of the following arithmetic is allowed,
(a) ptr1 + ptr2
(b) ptr1 – ptr2
(c) ptr1 * ptr2
(d) ptr1 / ptr2

Q89 : Word processor is

(a) Operating system
(b) Application software
(c) Device driver
(d) Utility software

Q90 : 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

Q91 : What will be the correct syntax to assign an array named arr of 5 elements to a pointer ptr?
(a) *ptr = arr ;
(b) ptr = arr ;
(c) *ptr = arr[5] ;
(d) ptr = arr[5] ;

Q92 : What will be the output of the following code segment?
char *x = "programming" ;
cout << *(x+2) << *(x+3) << *(x+5) << *(x+8) ;
(a) prgm
(b) rorm
(c) ogai
(d) ramg

Q93: There is a pointer variable named ptr of type int then address of which type of variable the ptr will store in it?
(a) variable of type char
(b) variable of type short
(c) variable of type int
(d) variable of type double

Q94 : Flow charts explain the working of a program in pictorial format.
(a) True
(b) False

Q95 : The object _____ may be used both for file input and file output
(a) fstream,
(b) ifstream,
(c) ofstream,
(d) none of the given options

Q96: Most efficient method of dealing with structure variables is to define the structure globally
(a) True
(b) False

Q97 : If a variable is passed by value to a function and the function makes some changes to that variable then it
(a) does not affect the original variable
(b) affects the original variable
(c) causes syntax error
(d) None of the given options

Q98 : Suppose int multi[5][10]; when we are using **multi , it means,
(a) Single dereferencing

(b) Single referencing
(c) Double referencing
(d) Double dereferencing
Q99 : To access the data members of structure _____ is used.
(a) dot operator (.)
(b) * operator
(c) ▯ operator
(d) None of given.
Q100 : The precedence of * is higher than dot operator (.)operator
(a) True
(b) False