

VINAYAKA MISSIONS SIKKIM UNIVERSITY

(Estd. by Sikkim Legislative Act vide VMSU Act No. 11 of 2008)

DIRECTORATE OF DISTANCE EDUCATION

NH 10-A, Tadong, East Sikkim-737102

Programme: Master of Computer Application

Session: 2015-16

Full Marks: 10

Course/Subject Name: Computer Fundamentals and Programming in C

Course/Subject Code: CS 4203

Assignment No: 1

Last Date of Submission: 31st March 2016

SECTION –A

Answer the following questions.

[0.5x10=5]

- The binary equivalent of 31 is:
a) $(11111)_2$ b) $(10000)_2$ c) $(10101)_2$ d) $(11100)_2$
- SIPO stands for:
a) Sequence in parallel out.
b) Serial in parallel out.
c) Serial in processing out.
d) None
- Asynchronous counter is also known as:
a) Ring counter b) Twisted Ring counter c) Johnson counter d) Ripple counter
- Fourth generation computing depends upon:
a) Microprocessor b) Artificial intelligence c) Integrated circuit d) Transistors
- ASCII stands for:
a) American Standard Code for Information Interchange
b) American Standard Code for Information Interface
c) American Standardization Code for Information Interchange
d) American Standard Coding for Information Interchange
- 2's complement of 10101 is:
a) 11011 b) 11111 c) 01011 d) 01010
- EDVAC is an example of:
a) First generation computers.
b) Second generation computers.
c) Third generation computers.
d) Fourth generation computers.
- In 3 input OR gate the output signal is 1(high) if:

- a) Any one of the input signal is 0.
 - b) The entire input signal is 1.
 - c) Any one of the input signal is 1.
 - d) All of the above.
9. The _____ Flip Flop is very useful when single data bit is to be stored.
- a) SR Flip Flop
 - b) D Flip Flop
 - c) JK Flip Flop
 - d) T Flip Flop
10. If all the input is 0, then the output is 1. This is true in case of:
- a) NOR gate
 - b) OR gate
 - c) AND gate
 - d) XOR gate

SECTION –B

Answer any Five questions from the following within 50 words

[1x5=5]

1. Convert into decimal equivalent.
 - a) 10101
 - b) 10010101
2. Convert into decimal equivalent.
 - a) $(D6C1)_{16}$
3. Define NAND Gate with example.
4. What do you mean by Flip Flop? Write down the applications of Flip Flops.
5. When does Race condition occur in clocked RS Flip Flop?
6. Differentiate Asynchronous and Synchronous counter.
7. What is the main role of input/output processor?

.....

VINAYAKA MISSIONS SIKKIM UNIVERSITY

(Estd. by Sikkim Legislative Act vide VMSU Act No. 11 of 2008)

DIRECTORATE OF DISTANCE EDUCATION

NH 10-A, Tadong, East Sikkim-737102

Programme: Master of Computer Application

Session: 2015-16

Full Marks: 10

Course/Subject Name: Computer Fundamentals and Programming in C

Course/Subject Code: CS 4203

Assignment No: 2

Last Date of Submission: 15th April 2016

SECTION –A

Answer the following questions.

[0.5x10=5]

1. A Combinational circuit that performs the addition of two bits is called:
a) Encoder b) Multiplexer c) Full adder d) Half adder
2. How many data select lines are required for selecting eight inputs?
a) 1 b) 2 c) 3 d) 4
3. In C programming which of the following operators have highest precedence:
b) Arithmetic operators
c) Relational operators
d) Logical operators
e) Assignment operator
4. What object do you use to represent a file in C?
b) FILE* b) fopen c) printf d) fprintf
5. 3 bits full adder contains:
e) 3 combinational inputs
f) 4 combinational inputs
g) 6 combinational inputs
h) 8 combinational inputs
6. What is the base data type of a pointer variable by which the memory would be allocated to it?
b) Unsigned int
c) int
d) float
e) depends upon the type of variable to which it is pointing
7. The right way of initializing array is:
a) `int n[]={1,2,3,4,5};`
b) `int num[6]={2,3,5,7,8,9};`

- c) `int n{6}={2,4,5,6,7,8};`
- d) `int n(6)={2,3,4,5,6,7};`
- 8. The default parameter passing mechanism is:
 - a) Call by value
 - b) Call by reference
 - c) Call by value result
 - d) none
- 9. The recursive functions are executed in a:
 - a) Parallel order
 - b) FIFO order
 - c) LIFO order
 - d) Iterative order
- 10. In which stage the following code `# include<stdio.h>` gets replaced by the contents of the file `stdio.h`?
 - a) During preprocessing
 - b) During linking
 - c) During executing
 - d) During editing

SECTION –B

Answer any Five questions from the following within 50 words

[1x5=5]

1. What is an array? What is the value that appears at the last location in character array?
2. Define Pointer with example.
3. How Multiplexer is different from that of Demultiplexer?
4. What is the advantage of recursion?
5. What is the main difference between Structure and Union?
6. Specify the need of preprocessor directive.
7. Define half subtractor.

.....

VINAYAKA MISSIONS SIKKIM UNIVERSITY

(Estd. by Sikkim Legislative Act vide VMSU Act No. 11 of 2008)

DIRECTORATE OF DISTANCE EDUCATION

NH 10-A, Tadong, East Sikkim-737102

Programme: Master of Computer Application

Session: 2015-16

Full Marks: 05

Course/Subject Name: Computer Fundamental and programming in C

Course/Subject Code: CS 4203

Assignment No: 3

Last Date of Submission: 15th April 2016

Answer the following questions.

[0.5x10=5]

- The Binary conversion of $(23)_{10}$ is:
a) $(11011)_2$ b) $(11111)_2$ c) $(10111)_2$ d) $(10101)_2$
- The Hexadecimal representation of $(41819)_{10}$ is:
a) $(F35B)_{16}$ b) $(A35B)_{16}$ c) $(103511)_{16}$ d) $(1035B)_{16}$
- Which of the following loader is executed when a system is first turned on or restarted:
a) Boot loader b) Compile and go loader c) Bootstrap loader d) Relating loader
- The use of Transistors was made by:
e) First generation computers.
f) Second generation computers.
g) Third generation computers.
h) Fourth generation computers.
- Before reading or writing in a file in C, one needs to:
a) Call fopen on the file.
b) Create the file
c) Call fclose on the file
d) use fprintf
- _____ is a combinational circuit that converts binary information from n input lines to a maximum of 2^n unique output lines:
a) Decoder b) Encoder c) Adder d) Multiplexer
- Which operator has lowest priority?
a) Assignment operator
b) Division operator
c) Comma operator
d) Conditional operator
- `int a[5]={1,2,3};`

What is the value of a[4]?

- a) 3
- b) 1
- c) 0
- d) Garbage value

9. The function scanf() returns:

- a) 1
- b) 0
- c) The number of successful read input values
- d) ASCII value of the input read

10. A preprocessor command:

- a) Need not start on new line
 - b) Has # as the first character
 - c) Comes before file executable statements.
 - d) Has < as first character.
-