

**Indian Maritime University**

**(A Central University, Govt of India)**

**End Semester Examinations – June 2023**

**Programme Name: B Tech (ME)**

**Semester: 1st**

**Subject Code: UG11T4103**

**Subject Name: Computers**

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Date: 15.06.2023

Max Marks: 70

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Duration: 03 Hrs

Pass Marks: 35

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**Section A**

Q.1 Answer the following

(10x1=10 Marks)

1. Which of the following is a Unit of measurement with computer systems

- A. Byte
- B. Megabyte
- C. Kilobyte
- D. All of the above

2. The hexadecimal number system has a base

- A. 2
- B. 4
- C. 8
- D. 16

3. Decimal equivalent of 11110110111 is \_\_\_\_\_

- A.  $1975_{10}$
- B.  $1054_{10}$

C.  $1952_{10}$

D. None of the above

4. Which one of the following is a loop construct that will always be executed once?

- a. for
- b. while
- c. switch
- d. do while

5 Study the following statement

```
#include <stdio.h>
```

```
int main()
```

```
{
```

```
int *ptr, a = 10;
```

```
ptr = &a;
```

```
*ptr += 1;
```

```
printf("%d,%d\n", *ptr, a);
```

```
}
```

What will be the output?

- a. 10, 10
- b. 10, 11
- c. 11, 10
- d. 11, 11

6. OSI model has \_\_\_\_\_ layers

- a. 7
- b. 6
- c. 5
- d. 2

7. In computer, data is stored temporarily in

- a. ROM
- b. RAM
- c. Hard disk
- d. None of the above

8. \_\_\_\_\_ are universal gates

- a. NOT
- b. NAND & NOR
- c. AND
- d. NOT, AND, & OR

9. A network spans across an entire country. What type of network is it?

- a) LAN
- b) MAN
- c) WAN
- d) Wireless

10. What will be the output of the following code snippet?

```
#include <stdio.h>
int main() {
int a = 3, b = 5;
int t = a;
a = b;
b = t;
printf("%d %d", a, b);
return 0;
}
```

- a. 3 5
- b. 3 3
- c. 5 5
- d. 5 3

### Section B-(Compulsory)

(5 x 2= 10 marks)

11. Draw the classification of memory based on primary and secondary types. Mention the memories under each category.

12. What is the difference between while( ) and do--- while() statement?
13. What is a pointer? What is its use in a program?
14. What are Decision making statements in C Programming?
15. What are the advantages of taking Backup of data?

**Section C- Answer any 5 out of 7 Questions**

**(05 X 10 Marks)**

16. What is Multiplexer and its types. Explain them briefly? 10 marks
17. What is an Operating system and its types. And what are the main functions of Operating System? 10 marks
18. What is RAM and ROM? Write the differences between. Mention the types of RAM and ROM and write in brief about the same. 10 marks
19. a) Write a c program to check whether the given string is a Palindrome or not. 5 marks  
b) Write a C Program to find the factorial of a given number. 5 marks
- 20 (a) What is an array? How is an array initialized? 4 marks  
(b) Write a C program to read 10 numbers and store them in an array and then find the average of the numbers. 6 marks
21. What is Network Topology and state its different types. 10 marks
22. What are logical gates and what are its types? Explain them briefly. 10 marks