

Ts11CS

Tenkal District Common Examinations
Common First Revision Examination - January 2023



Standard 11
COMPUTER SCIENCE
Part - I

Time: 3.00 Hours

Marks: 70
15 x 1 = 15

- 1) Expansion of Post
 - a) Post on Self Test
 - b) Power on Software Test
 - c) Power on Self Test
 - d) Power on Self Text
- 2) 2^{60} is referred as
 - a) Exa
 - b) Tera
 - c) Peta
 - d) Zetta
- 3) Which of the following is a CISC Processor?
 - a) Inter P6
 - b) AMD K6
 - c) Pentium II
 - d) Pentium IV
- 4) The shortcut key used to rename a file in windows.
 - a) F2
 - b) F4
 - c) F5
 - d) F6
- 5) If $i < i$ before the assignment $i := i - 1$ after the assignment, we can conclude that
 - a) $0 < i$
 - b) $0 \leq i$
 - c) $i = 0$
 - d) $0 \geq i$
- 6) Which of the following property is true, after the assignment (at line 3)
 1. $--i, j = 0$
 2. $i, j := i + 1, j - 1$
 3. $--?$
 - a) $i + j > 0$
 - b) $i + j < 0$
 - c) $i + j = 0$
 - d) $i = j$
- 7) If $m \times a + n \times b$ is an invariant for the assignment, $a, b := a + 8, b + 7$, the values of m and n are
 - a) $m = 8, n = 7$
 - b) $m = 7, n = -8$
 - c) $m = 7, n = 8$
 - d) $m = 8, n = -7$
- 8) Which of the following operator is extraction operator in C++?
 - a) $>>$
 - b) $<<$
 - c) $<>$
 - d) $\wedge\wedge$
- 9) Which of the following operator returns the size of data type?
 - a) `size of ()`
 - b) `int ()`
 - c) `long ()`
 - d) `double ()`
- 10) How many types of iteration statements?
 - a) 2
 - b) 3
 - c) 4
 - d) 5
- 11) Which of the following is the scope operator?
 - a) $>$
 - b) $\&$
 - c) $\%$
 - d) $::$
- 12) `cin >> n[3];` To which element does this statement accept the value?
 - a) 2
 - b) 3
 - c) 4
 - d) 5
- 13) The identifiable entity with some characteristics and behaviour is
 - a) Class
 - b) object
 - c) structure
 - d) member
- 14) Which of the following access specifier protects data from inadvertent modification?
 - a) Private
 - b) Protected
 - c) Public
 - d) Global
- 15) The type of inheritance that reflects the transitive nature is
 - a) Single inheritance
 - b) Multiple inheritance
 - c) Multilevel inheritance
 - d) Hybrid inheritance

Part - II**6 x 2 = 12****Answer any six questions. Q.No. 24 is compulsory.**

- 16) What are the functions of Control unit?
- 17) Convert the binary number $(11.011)_2$ into its decimal equivalent?

Kindly send me your questions and answerkeys to us : Padasalai.Net@gmail.com

24) Write a short on cracking?

Part - III

6 x 3 = 18

Answer any six questions. Q.No. 33 is compulsory.

- 25) Explain about classification of microprocessors based on the Data width.
- 26) Write the truth table and draw logic symbol of XNOR gate.
- 27) Differentiate CD and DVD
- 28) What is type conversion? Write short note on implicit type conversion?
- 29) Write a note on User - defined function.
- 30) What is called nested structure? Give example.
- 31) Write about three types of visibility mode.
- 32) What are the points to be noted while deriving a new class?
- 33) Write a C++ program to sum the numbers from 1 to 10 using "for loop"

Part - IV

5 x 5 = 25

- 34) a) Discuss the various generations of computers.
(OR)
b) Explain the process management algorithm in operating system.
- 35) a) Explain the different ways of finding a file or Folder.
(OR)
b) Explain the data types in C++
- 36) a) Explain with example of "While loop"
(OR)
b) Explain call by value method with example.
- 37) a) What are the advantages and disadvantages of Oops.
(OR)
b) What are the restrictions of operator overloading.
- 38) a) Discuss the types of Inheritance.
(OR)
b) Write the different types of Cyber attacks.

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First Revision - Answer Key - 2023

XI Computer Science.Part-I

- 1) C) Power on self Test
- 2) a) EXA
- 3) C) Pentium II
- 4) a) F2
- 5) b) $0 \leq i$.
- 6) c) $i + j = 0$
- 7) b) $m = 7, n = -8$
- 8) a) >>>
- 9) a) size of C)
- 10) b) 3
- 11) d) ::
- 12) c) 4
- 13) b) object
- 14) a) private.
- 15) c) multilevel inheritance.

Part-II

16) Control unit: -

* The control unit controls the flow of data between the CPU, memory and I/O devices

* It also controls the entire operation of a computer.

-2 marks.

17) $(11.011)_2$ $(11)_2 = 3$

$$0.11 = (0 \times 0.5 + 1 \times 0.25 + 1 \times 0.125) = 0.375$$

$$(11.011)_2 = (3.375)_{10}$$

-2 marks

18. Program counter

* The Program counter (PC) is a special register in the CPU which always keeps the address of the next instruction to be executed.

- 2 marks.

19. Class members:

* A class comprises of members called as data members & member functions.

* Data members are the data variables that represent the features or properties of a class.

* Member functions are the functions that perform specific tasks in a class.

- 2 marks

20. Syntax to declare two dimensional array:

`datatype array_name [rowsize] [columnsize];`

- 2 marks.

21. Void datatype:

* Void data type do not return any value.

* To declare a generic pointer.

- 2 marks.

22. Destructor:

* When a class object goes out of scope, a special member function called the destructor gets executed.

- 2 marks

23. Function overloading:

The ability of function to process the message or data in more than one form is called as function overloading.

(- 2 marks)

24.

Cracking :-

* Cracking is where some one edits a program source code so that the code can be exploited or modified.

* Cracking means trying to get into computer systems in order to steal, corrupt, or illegitimately view or data.

- 2 marks.

Part - II

25.

- * 8 bit microprocessor
- * 16 " "
- * 32 " "
- * 64 " "

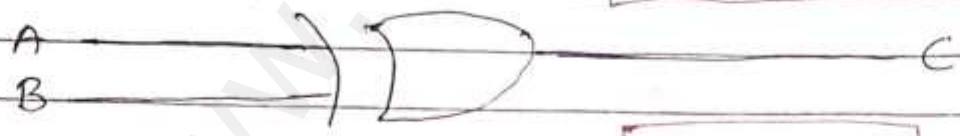
26.

Truth Table

A	B	$A \oplus B$
0	0	0
0	1	1
1	0	1
1	1	0

- 2 marks

Symbol:



- 1 mark

27.

CD

DVD

1. CD stands for Compact Disc
2. The capacity of an ordinary CD Rom is 700 MB
3. CD data is represented as tiny indentations known as "pits"

- DVD stands for Digital Versatile Disc (or) Digital Video Disc.
- The capacity of DVD is 4-7 GB.
- More than six times what a CD can hold.



Known as "pits"

Or and 3 differences

- 3 marks.

28.

Type conversion:

The process of converting one fundamental type into another is called "Type conversion"

Implicit type conversion:

Type conversion done by compiler automatically called is implicit type conversion.

- 3 MARKS

29.

User defined Function:

* We can also define new functions to perform specific task. These are called as user defined functions. User defined functions are created by the user.

* A function can optionally define input parameters that enable callers to pass arguments into the function. A function can also optionally return a value as output.

* Functions are ideally with a name that clearly describes what the function does.

- 3 MARKS

30.

Nested Structure:

A structure declared within another structure is called nested structure.

Example

- 2 marks

- 2 marks

31.

visibility mode:

- 1. private visibility mode
- 2. public " "
- 3. protected " - 1 mark

Explanation: 2 marks

32.

1. The keyword `class` has to be used
2. The name of the derived class is to be given after the keyword `class`
3. A single colon
4. The type of derivation namely Private, Public or Protected
5. Base class name should be present

3 marks

33.

```
#include <iostream.h>
using namespace std;
int main()
{
    int i, sum = 0;
    for (i = 1; i <= 10; i++)
    {
        sum = sum + i;
    }
    cout << "The sum of 1 to 10 is" << sum;
    return 0;
}
```

(or) A program that gives this logic using for loop

3 marks

Part - IV

1 st Generation	1940 - 1956	Vacuum Tubes	Machine language used
2 nd "	1956 - 1964	Transistors	Assembly language used
3 rd "	1964 - 1971	IC	High level language used.
4 th "	1971 - 1980	Microprocessor (VLSI)	IBM, APPLE, portable computer
5 th "	1980 - till date	VLSI	AI
6 th "	In future	In future	Robotics

5 marks



DATE: _____

b) Process Management algorithm

FIFO - First In First out

SJF - Shortest Job First

Round Robin

Based on Priority

Explain the examples

5 marks

35) a) Finding a File or Folder

1. Click the Start button, the search box appears at the bottom of Start menu

2. Type the name of the file or the folder you want to search.

3. The files or folders with the specified name will appear, if you click that file, it will directly open that file or the folder.

4. There is another option called see more results which appears above the search box

5. If you click it, it will lead you to a Search Results dialog box where you can click and open that file or the folder.

5 marks

b) Datatypes in C++

(1) Fundamental Data types

(2) User defined data types

(3) Derived Data types

1 marks

Explanation

4 marks

36) a) While loop:

* A while loop is a control flow statement that allows the loop statements to be executed as long as the condition is true.

* The while loop is an entry control loop because the test expression is evaluated before entering into a loop. - 2 marks

Syntax:

```
while (Test expression)
{
    Body of the loop
}
```

Statement - X;

Give any one example - 1/2
- 2 marks
1/2
- 2 marks

b) Call by value method:

* This method copies the value of an actual parameter into the formal parameter of the function.

* If change made to formal parameter within the function will have no effect on the actual parameter.

Any suitable Example.

- 2 marks
- 2 marks

379) Advantages of oops

- * Reusability
- * Redundancy
- * Easy maintenance
- * Security.

- 3 marks

Disadvantages of oops:

- * size
- * Effort
- * speed

with Explanation.

b) Restrictions of operators over loading:

- 1. Precedence & Associativity of an operator cannot be changed.

SPB
DATE:

2. NO new operators can be created, only existing operators can be overloaded

3. cannot redefine the meaning of an operator's procedure. You cannot change how integers are added. only additional functions can be given to an operator

4. overloaded operators can not have default arguments

5. when binary operators are overloaded, the left hand object must be an object of the relevant class

5 marks

3e) a) Different type of Inheritance.

- 1. Single inheritance
- 2. Multiple »
- 3. Multilevel »
- 4. Hierarchical »
- 5. Hybrid »

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With Explanation

5 marks

b) cyber attacks:

- 1. malware
- 2. Pharming
- 3. Threats
- 4. phishing
- 5. MITM

Explain any of the above

5 marks