# Sample Question Paper

(SSLC Examination 2025)

**COMPUTER SCIENCE** 

By
Meghalaya Board of School Education (MBOSE)

Sample Question Paper of SSLC – COMPUTER SCIENCE

### **Sample Question Paper**

**Total Pages: 5 (Five) Subject: COMPUTER SCIENCE** Full marks: 80 Time allowed: 3 hours Section - A (Maximum Marks: 30) Multiple Choice Quesitions. Attempt All Questions 1x30=30Mac OS is a series of GUl based operating system developed by 1. (A) Apple Inc (B) Microsoft Inc (C) IBM (D) Dell 2. The process of waiting for the execution of tasks in batch processing OS is called (A) multitasking (B) spooling (C) enquiries (D) response Which of the following DOS command is used to move from the current directory to the root directory? 3. (A) CD (B) CD.. (C) CD SYSTEM (D) CD\ 4. Which of the following is a second level computer language? (A) Machine language (B) Low level language (C) Assembly language (D) High level language 5. Oracle is an example of (A) spreadsheet software (B) database software (C) graphic software (D) multimedia software 6. In a truth table of 2 inputs, the number of input rows is\_ (A) 2

(B) 3 (C) 4 (D) 5

(A) EXNOR gate(B) EXOR gate(C) NOR gate(D) OR gate

7.

Which of the following gate is represented by (+)?

| 8.  | Bing is an example of (A) an online shopping app (B) a type of virus (C) a social networking site (D) a search engine                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |  |
|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| 9.  | An IP address consist of sets of numbers from 0 to 255, separated by three dots.  (A) two (B) three (C) four (D) five                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |  |
| 10. | Which of the following tags cannot be contained in the Head section in an HTML document (A) <basefont/> (B) <body> (C) <ttitle> (D) <style></td></tr><tr><td>11.</td><td>Which of the following is a text-only based web browser?  (A) Lynx (B) Mosaic (C) Mozilla Firefox (D) Opera</td></tr><tr><td>12.</td><td colspan=2>The tag whose enclosed contents are not displayed on the web page; they are for reference purpose only.  (A) <P> (B) <NOBR> (C) <A> (D) <COMMENT></td></tr><tr><td>13.</td><td colspan=2>In which year was the Internet started in India? (A) 1st January 1985 (B) 15n August 1985 (C) 15th August 1995 (D) 26tn January 1995</td></tr><tr><td>14.</td><td>Which one among the following C++ operators has the highest priority of evaluation?  (A) Compound Assignment operators  (B) Comma operator  (C) Conditional operator  (D) sizeof() operator</td></tr><tr><td>15.</td><td>is used to mark the end of the statement. It must be included at the end of every statement in all C++ program.  (A) Colon (:) (B) Semicolon (;) (C) Comma (,) (D) Curly braces {}</td></tr><tr><td>16.</td><td>Which one of the following is not a feature of OOPs in Ct++?  (A) Durability (B) Reusability (C) Inheritance (D) Polymorphism</td></tr></tbody></table></style></ttitle></body> |  |  |

| 17. | <ul> <li>In a for loop, a counter variable is executed</li> <li>(A) not even once.</li> <li>(B) only once at the beginning of the loop.</li> <li>(C) only once before the termination of the loop.</li> <li>(D) at every iteration of the loop.</li> </ul> |  |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| 18. | In an assignment operator (=), its lvalue operand must be (A) a variable (B) multiple variables (C) a constant (D) a numeric value                                                                                                                         |  |
| 19. | In C++, an identifier cannot contain (A) digits (B) letters (C) underscore (D) special characters other than underscore                                                                                                                                    |  |
| 20. | Making a spelling mistake while typing a C++ keyword in the program is a/ an (A) general error (B) syntax error (C) execution error (D) logical error                                                                                                      |  |
| 21. | Who among the following is not a co-developer of Java programming language?  (A) James Gosling (B) Patrick Naughton (C) Tim Berners-Lee (D) Mike Sheridan                                                                                                  |  |
| 22. | are the type of java programs that are used within a web page to add new features to a web browser.  (A) Java Applets (B) Java Bean (C) Java Server Page (D) Java Virtual Machine                                                                          |  |
| 23. | The operator that operates on one operand is known as  (A) binary operator  (B) unary operator  (C) ternary operator  (D) single operator                                                                                                                  |  |
| 24. | In Java, all codes must reside insideand everything is  (A) a class, an object  (B) a function, an object  (C) an object, a class  (D) a function, a class                                                                                                 |  |
| 25. | Using BlueJ IDE, the first step to create java program is to (A) create new class (B) create main function (C) open new project (D) open editor                                                                                                            |  |
| 26. | The term 'Virus' stands for  (A) Virtual Information Resources Under Siege  (B) Vital Information Resources Under Siege  (C) Vital Infected Resources under Siege  (D) Very Important Resources Under Siege                                                |  |

| 27.       | Which of the following viruses changes its codes when it is passed from one computer to     |                               |
|-----------|---------------------------------------------------------------------------------------------|-------------------------------|
|           | another?                                                                                    |                               |
|           | (A) Multipartite virus                                                                      |                               |
|           | (B) Stealth virus (C) Trojan virus                                                          |                               |
|           | (D) Polymorphic virus                                                                       |                               |
|           | (b) Tolymorphie virus                                                                       |                               |
| 28.       | Sasser, Conifer and Blaster are the names of                                                |                               |
|           | (A) antivirus software                                                                      |                               |
|           | (B) spyware                                                                                 |                               |
|           | (C) worms                                                                                   |                               |
|           | (D) spam                                                                                    |                               |
| 29.       | The security system used in e-commerce where both the sender and recipient must prove their |                               |
|           | identity is called                                                                          |                               |
|           | (A) privacy                                                                                 |                               |
|           | (B) Integrity (C) Authentication                                                            |                               |
|           | (D) Non-repudiation                                                                         |                               |
|           | (b) Non repairment                                                                          |                               |
| 30.       | A copy of the complete data is made and stored in a compressed form in backup.              |                               |
|           | (A) full                                                                                    |                               |
|           | (B) incremental (C) online                                                                  |                               |
|           | (D) Drive Imaging                                                                           |                               |
|           | (b) bill imaging                                                                            |                               |
|           | SECTION-B                                                                                   |                               |
|           | ( Maximum Marks: 12 )                                                                       |                               |
| Verv Sl   | hort Answer Type Questions: Answer any 6 (six).                                             | 2x6=12                        |
| 31.       | Convert: $(73)_{10} = (?)_2$                                                                |                               |
| 32.       | In what way a reservation system software is helpful?                                       |                               |
| 33.       | How is internet used in the field of entertainment?                                         |                               |
| 34.       | Name the tag and attribute for the following.                                               |                               |
|           | (a) to control the speed of scrolling of a moving text.                                     |                               |
|           | (b) to indicate full form when a mouse is hovered over the text HTML.                       |                               |
| 35.       | Evaluate the following expressions and display the output:                                  |                               |
|           | int a, b=5, c=10;                                                                           |                               |
|           | (a) int $x = (a=2, b+=a, b*c);$ (b) $a=b+++c;$                                              |                               |
|           | cout< <a; cout<<x;<="" td=""><td></td></a;>                                                 |                               |
| 36.       | Define C++ constant.                                                                        |                               |
| 37.       | What do you mean by 'WORA' in Java?                                                         |                               |
| 38.       | Write the steps to evaluate the following expression: $y=a + b \% (c-2) * d/3$ ;            |                               |
| 39.       | What causes the developers to release updates for their software?                           |                               |
|           |                                                                                             |                               |
|           | SECTION-C                                                                                   |                               |
| <b>~1</b> | ( Maximum Marks: 18 )                                                                       | 2 ( 10                        |
|           | answer Type Questions: Answer any 6 (six).                                                  | 3x6=18                        |
| 40.       | Write the steps to backup programs, system settings and files on a Windows 7 computer?      | (11/ 2 2)                     |
| 41.       | Write the commands in operating systems to perform the following operations:                | $(1\frac{1}{2} \times 2 = 3)$ |
|           | (a) Set the attribute of the file <u>readme.txt</u> to read-only. (In DOS)                  |                               |
| 40.337    | (b) To display the manual page for change directory command. (in Linux)                     | (0.11.2)                      |
| 42. Wh    | at is intranet? What protocols are used in an intranet?                                     | (2+1=3)                       |

- 43. What facilities does a modern web browser provide?
- 44. Differentiate between break and continue statements used in C++.
- 45. Differentiate the process of execution in prefix and postfix increment/decrement operators.
- 46. Write any three primary goals set at the time of creation of Java programming language.
- 47. Differentiate between while and do while loops.
- 48. What does a data recovery tool do? Name any two data recovery tools.

(2+1=3)

#### **SECTION-D**

(Maximum Marks: 20)

Long Answer Questions: Answer any 4 (four)

4x5 = 20

49. Perform binary addition of the following binary numbers:

5

 $(\underline{1110})_2$ ,  $(\underline{10111})_2$  and  $(\underline{11111})_2$ 

Convert the result to decimal number and write its ASCII equivalent character.

- 50. What are logic gates? Define AND and OR gate. Write their truth tables using two inputs.
- (1+2+2=5)
- 51. Write an HTML code to display table containing the list of items as shown below:

5

#### Data and Measurement

| Forms of Data                 | Data Measurement             |
|-------------------------------|------------------------------|
| • Text                        | • byte                       |
| <ul> <li>Graphics</li> </ul>  | <ul> <li>kilobyte</li> </ul> |
| • Audio                       | <ul> <li>megabyte</li> </ul> |
| • Video                       | <ul> <li>gigabyte</li> </ul> |
| <ul> <li>Animation</li> </ul> | <ul> <li>terabyte</li> </ul> |

- 52. Write a C++ program to find whether a number entered by the user is odd or even.
- 53. Write a C++ program to print all the odd numbers from 101 to 200 using while loop.
- 54. Write the output generated by the following Java program: public class Output

5

```
public static void main (String args[])
{
    int num=5, i, j;
    for (i=1, j=num; i<=num; i++, j--)
        System.out.println(i + "x" + j + "=" + i*j);
}
</pre>
```

55. Who is a hacker? Write any three reasons to launch a cyber attack.

(2+3=5)

## Format for Answer Key

**Total Pages: 5 (Five)** 

**Subject: COMPUTER SCIENCE** 

Full marks: 80 Time allowed: 3 hours

# SECTION - A

## Multiple Choice Questions. Attempt ALL Questions

1x30=30

- 1. (A) Apple Inc
- 2. (B) spooling
- 3. (D) CD\
- 4. (C) Assembly language
- 5. (B) database software
- 6. (C) 4
- 7. (B) EXOR gate
- 8. (D) a search engine
- 9. (C) four
- 10. (B) <BODY>
- 11. (A) Lynx
- 12. (D) < COMMENT>
- 13. (C) 15th August <u>1995</u>
- 14. (D) sizeof() operator
- 15. (B) Semicolon (;)
- 16. (A) Durability
- 17. (B) only once at the beginning of the loop.
- 18. (A) a variable
- 19. (D) special characters other than underscore
- 20. (B) syntax error
- 21. (C) Tim Berners-Lee
- 22. (A) Java Applets
- 23. (B) unary operator
- 24. (A) a class, an object
- 25. (C) open new project
- 26. (B) Vital I information Resources Under Siege
- 27. (D) Polymorphic virus
- 28. (C) worms
- 29. (C) Authentication
- 30. (A) full

Very Short Answer Questions: Answer any 6 (six).

31. 2|73 Remainders

 $2|\overline{36}$  1

2|<u>18</u> 0

2|<u>9</u> 0

 $\begin{array}{ccc}
2|4 & 1 \\
2|2 & 0
\end{array}$ 

 $2|\underline{2}$  0 0

0 1

 $\therefore$  (73)<sub>10</sub> = (1001001)<sub>2</sub> Ans

- 32. A reservation system software is used to manage all kinds of bookings for flight, train, theatres, and hotels.

  One example is hotel reservation software which helps in managing and booking cottages, hotels and cabins according to our convenience and budgets.
- 33. Internet enables us to play games, listen music, watch movies and download them to the computer.
- 34. Name the tag and attribute for the following.
  - (a) The tag is <MARQUEE> and the attribute is SCROLLAMOUNT

Example: <MARQUEE SCROLLAMOUNT=6>This text will scroll</MARQUEE>

(b) The tag is <ABBR> and the attribute is TITLE

Example: <ABBR TITLE="Hyper Text Markup Language" >HTML</ABBR>

- 35. Evaluate the following expressions and display the output:
  - (a) output: 70 [Since the evaluation takes place from left to right in comma operator]
  - (b) output: 15 [Equivalent to a = b+++c; as postfix operator has higher priority than prefix form]
- 36. Constants are used for fixed values. The keyword const specifies that the value of the variable will not change during the execution of the program.
- 37. Java follows the motto: 'Write Once Run Anywhere', that is, once an application is developed and compiled on a device, it does not need to recompiled to run on another device and would run on all the devices with Java.

38. y = a + b % (c - 2) \* d / 3;

 Step 1: Parenthesis (), Subtraction : (c - 2)

 Step 2: Modulus %
 : b % (c - 2)

 Step 3: Modulus %
 : b % (c - 2)

 Step 3: Multiplication \*
 : b % (c - 2) \* d

 Step 4: Division /
 : b % (c - 2) \* d / 3

 Step 5: Addition +
 : a + b% (c - 2) \* d / 3

Step 6: Assignment = : y = a + b % (c - 2) \* d / 3

39. Hackers take advantage of loopholes found in software, which causes developers to release update to secure it. So, it is important to download the latest software version of any software on the computer system.

SECTION -C

Short Answer Type Questions: Answer any 6 (six).

3x6 = 18

2x6=12

- 40. (1) Go to the Start buton  $\rightarrow$  Control Panel  $\rightarrow$  Backup and Restore option.
  - (2) On the left pane, click on the Create a system image.
  - (3) Create a system image wizard opens. Follow the steps in the wizard to start the backup.
  - (4) System images are saved in the format of *drive\WindowsImageBackup\computer name\*.

- 41. Write the commands in operating systems to perform the following operations:  $(1\frac{1}{2} \times 2=3)$ 
  - (a) ATTRIB +R readme.txt (in DOS) (b) MAN CD (in Linux)
- 42. The intranet is a private network of computers operated within an organisation to serve its internal need. It cannot be accessed by general public. An intranet can host many private websites and is an important component of internal communication and collaboration.

  Any Internet protocols, HTTP, SMTP and FTP, Can also be used in an intranet.
- 43. A modern web browser provides facilities, such as downloads, bookmarks and password management. They also offer functions, such as spell check, search toolbars, tabbed browsing and pop-up blocking.
- 44. <u>break</u>: It is used to terminate the loop immediately. The control is transferred to the statement following the loop body. This statement is helpful in terminating an infinite loop. <u>continue</u>: it is used to transfer the control to the beginning of the loop by skipping the code that follows the continue statement.
- 45. If a prefix form (++a or --a) is used, then increment or decrement will be done before the rest of the expression and if a postfix form (a++ or a--) is used then increment or decrement will be done after the complete expression is evaluated.
- 46. Primary goals of Java set at the time of its creation
  - Simple, object-oriented and familiar
  - Architecture neutral and portable
  - · Robust and secure
  - · High performance
  - Interpreted, threaded, and dynamic
- 47. The while and do while loops repeat the execution of statement(s) until the condition given proves false. while is an entry controlled loop which means the loop checks the condition at the beginning, and if the condition is false, the loop will not execute even once whereas do while is an exit controlled loop, the loop checks the condition only at the end and so the statement(s) are executed at least once even if the condition becomes false for the first time.
- 48. Data recovery tool is a utility that is used to restore computer files. It creates and saves restore points on the computer regularly and restores the files to an earlier point of time.

  Some data recovery tools are
  - Hard disk and partition recovery tools
  - CD and DVD recovery tools
  - Email recovery tools
  - •Password recovery tools, etc

**SECTION-D** 

Long Answer Questions: Answer any 4 (four)

4x5 = 20

49. 
$$(1110)_2 + (10111)_2 + (11111)_2 = (?)_2$$

1110

 $\begin{array}{l} +\ 10111 \\ \hline & \frac{11111}{(1\ 0\ 0\ 0\ 1\ 0\ 0)_2} \\ (1\ 0\ 0\ 0\ 1\ 0\ 0)_2 & = 1x2^6 + 0x2^5 + 0x2^4 + 0x2^3 + 1x2^2 + 0x2^1 + 0x2^0 \\ & = 64 + 4 \end{array}$ 

 $=(68)_{10}$ 

Its ASCII equivalent character is D.

50. <u>Logic gates</u>: Logic gates are the electronic gates (circuits) that practically implements the Boolean functions. A logic gate is a combination of inputs and outputs based on conditions for obtaining a result.

AND gate: AND is a logic gate that produces an output signal 1 when both the input signals are 1's. AND gate is represented by a dot(.) sign, i.e. A AND B can be written as A.B

Truth Table of AND gate

| Input |   | Output |
|-------|---|--------|
| A     | В | A.B    |
| 0     | 0 | 0      |
| 0     | 1 | 0      |
| 1     | 0 | 0      |
| 1     | 1 | 1      |

OR gate: OR is a logic gate that produces an output signal 1 when atleast one of the input signal is 1. OR gate is represented by a + sign, i.e. A OR B can be written as A+B

Truth Table of OR gate

| Input |   | Output |
|-------|---|--------|
| A     | В | A+B    |
| 0     | 0 | 0      |
| 0     | 1 | 1      |
| 1     | 0 | 1      |
| 1     | 1 | 1      |

51. HTML codes to create table containing the list of items:

```
<HTML>
      <HEAD>
          <TITLE> Table with List </TITLE>
      </HEAD>
      <BODY>
          <TABLE> Border =1>
               <CAPTION> Data and Measurement</CAPTION>
               <TR>
                   <TH>Forms of Data</TH>
                   <TH>Data of Measurement</TH>
               </TR>
               <TR>
                    <TD>
                         <UL TYPE="disc">
                               <LI> Text <LI> Graphics <LI> Audio <LI> Video <LI> Animation
                         </UL>
                   </TD>
                    <TD>
                         <OL TYPE=1>
                              <LI>byte <LI> Kilobyte <LI> Megabyte <LI> Gigabyte <LI> Terabyte
                          </OL>
                    </TD>
               </TR>
         </TABLE>
      </BODY>
</HTML>
```

```
52.
        #include <io stream.h>
        using namespace std;
        int main ()
          int num;
          cout << "Enter a number:";</pre>
          cin >> num;
          if (num \% 2 = =0)
          cout << "it is even number";
        else
          cout << "it is odd number";
        return 0;
53.
        #include < io stream.h>
        using namespace std;
        int main ()
          int n = 101
          while (n<=200)
           cout << n;
           n+=2;
         return 0;
54.
       Output in JAVA:
       1x5 = 5
       2x4=8
       3x3=9
       4x2 = 8
       5x1=5
```

55. A hacker is a computer expert who can break into the computer system while we are connected to the Internet and tamper with the computer system. A hacker may look for a weakness in the computer system or computer network and exploit it.

There are many reasons to launch a cyber attack. Some of them are:

- To have fun.
- To use our computer system resources.
- To use our computer system to send spam.
- To gain our information.
- To steal someone's identity and money.
- To gain competitive advantage by bringing someone down.