

**10<sup>th</sup> CLASS (SLOs) STUDENTS LEARNING OUTCOMES**  
**EXAMINATION.**  
**FEDERAL BOARD SSC- II EXAMINATION.**  
**COMPUTER SCIENCE.**

**UNIT NO. 1 PROGRAMMING TECHNIQUES**

**KNOWLEDGE BASED QUESTIONS. 30%**

1. Write three advantages of drawing a flow chart.
2. Develop a flowchart to find the sum of three numbers.
3. What is an algorithm and what is the role of algorithm in problem solving?
4. Define Problem.
5. Define computer.
6. What is a flowchart?
7. What are the advantages of using flowcharts?
8. Draw any four graphical symbols used in flowchart and explain them.

**UNDERSTANDING BASED 50%**

1. Write an algorithm to calculate the area of a rectangle for given breath and length?
2. How candid solutions of a problem.
3. How to discuss a problem.
4. How Analyzing the problem.
5. How decision symbol.
6. How processing symbol.
7. Write down three characteristics of algorithm.
8. What is meant by the following terms?  
a) Algorithm                      b) Efficiency of an Algorithm                      c) Candid Solutions.LL

**APPLICATION BASED 20%**

1. Write the program.
2. How implement the program.
3. What is Documentation?
4. What do you mean by syntax of programming language? Is it necessary?

**LONG QUESTIONS.**

1. Describe the steps involved in problem solving.
2. Write an algorithm to calculate the area of area of a rectangle for given breadth and length.
3. Write an algorithm that inputs marks and prints the message "PASS" or "FAIL". Passing marks are 33
4. Define Algorithm. Write down the characteristics of a good Algorithm.
5. Write an algorithm to find the sum of given sequence.  
SUM = 20+25+30+35+40+45+50+55+60

## UNIT NO. 2

## PROGRAMMING IN C

### KNOWLEDGE BASED. 30%

1. Define computer program. Explain low level and high level language.
2. Differentiate between syntax and semantic.
3. Write three difference between assembly language and HLLs.
4. Write four characteristics of HLLs.
5. Define Integrated Development Environment.(IDE).
6. Difference between constant and variable.
7. Why comments are used in Programs?
8. What is the purpose of header files in C language?

### UNDERSTANDING BASED 50%

1. Concept of integrated development environment.
2. What is Assembly language?
3. Write three characteristic Assembly language.
4. How procedural languages.
5. Write object- oriented programming language
6. Difference between Low-level language and High –Level language.
7. Define Term of C language (Editor, Compiler, Linker, Loader and Debugger).
8. What is compiler?
9. List the used of C language.
10. What is header files?
11. Describe any three rules for specifying a variable name in C language?

### LONG QUESTIONS.

1. Describe the following high level languages. a) C/C++ b) Visual Basic c) C#  
D) Java
2. What is C language IDE? Explain its modules in detail.
3. What are the rules for specifying variable name in C language?

## UNIT NO.3

## INPUT/OUTPUT HANDLING FUNCTIONS. 15%

### KNOWLEDGE BASED 30%

1. Define input functions.
2. Define output functions.
3. What is single character output function? Explain with examples.
4. Define Relational Operators.
5. Difference between assignment operator and Equal to operator.
6. Difference between Unary and Binary Operators.
7. What is Conditional (Ternary) Operator?
8. Difference between Printf() and scanf() functions by writing their syntax, purpose and given an example each.
9. What is format specifier? Difference between %f and %e format specific.
10. Define Logical Operator and Conditional operator.
11. Define Arithmetic operator? Differentiate between simple and compound assignment operators with an example of each.
12. Find errors in the following code?

```
Int a, b = 1,2 ,
For (b=1, b<=10, b--),
{
    Print(“ub %d”,b)
}
getch()
```

### UNDERSTANDING BASED QUESTIONS.50%

1. Why escape sequence is used? Explain with examples.
2. What is the purpose of print ()? Explain with an example.
3. What is getchar() function.
4. What is the statement terminator in C?
5. Write uses of the following function in C-programming.  
i) getchar()    ii) gets()    iii) getche()
6. Why Floating- point Specifiers is used?
7. Why Character format specifier is used.

### APPLICATION BASED.20%

1. What is order of precedence of operators?
2. What is displaying string output function?
3. What is used of strepy () function.
4. What is used of puts() function.
5. Uses of statement terminator in C.
6. Write uses %f %d and %i specifiers.

### LONG QUESTIONS.

1. Describe the functions of the following operators?  
i) Relational operators    ii) Logical Operator    iii) Conditional operator.
2. Write a program that reads the length and width of a rectangle and prints its area.
3. Write a program that reads temperature in Celsius, converts it into Fahrenheit and prints on the screen.

## UNIT NO.4

## CONDITIONAL CONTROLSTRUCTURE.

### KNOWLEDGE BASED – 30

1. Define a control Statement.
2. Define a conditional statement.
3. Differentiate between if and if –else selection structures.
4. What is nested selection Structure?
5. What is the purpose and structure of if statement? Explain with the help of examples.

### UNDERSTANDING BASED -50%

1. Use of if –else statement.
2. Use of If-Else-If statement.
3. Advantages and limitation of switch statement?
4. Uses of conditional operator.

### LONG QUESTIONS.

1. What is control structure? Explain conditional control structure with examples.
2. What is the purpose of switch () statement? Explain with the help of one example.
3. Write a program that reads a number and prints its square if it is greater than 10.
4. Write the above program using conditional operator.

## UNIT NO. 5

## LOOP CONTROL STUCGURE

### UNDERSTANDING BASED.

1. Highlight the function of loops.
2. Write a program to read a number and print its table by using for () loop.
3. Write a program to print the greatest common divisor of two number by using for () loop.
4. What is for statement?
5. Difference between for loop and while loop.
6. What is loop structure?

### APPLICATION BASED

1. Explain while and do –while loops with example.
2. Write purpose of Break and continue statement.

### LONG QUESTIONS.

1. Write a program to convert kilogram to pounds using While loop.

## UNIT NO. 6

## COMPUTER LOGIC AND GATES.

### KNOWLEDGE BASE.

1. Define digital logic and logic gate.
2. Describe AND gate. Draw the truth table for AND gate.
3. Describe OR gate. Draw the Truth table for OR gate.
4. Describe NOT gate. Also, draw truth table for NOT gate.
5. What is Karnaugh map?
6. What is a logic gate? Draw and table all possible operations of a two inputs OR gate using its symbol
7. What is Truth table? Draw a truth Table for the following Boolean expression.  $XZ + XY$
8. Draw a logic circuit for the following Boolean expression using logic gate.  $XY + XZ$

### UNDERSTANDING BASED.

1. Describe the properties of truth table.
2. Explain the conversion of Boolean function to logic circuit with the help of example.
3. Explain the simplification of two-variable Boolean function using karnaugh

### LONG QUESTION.

1. Simplify the Boolean Function F, using Karnaugh Mapping (K-map).  $F = xyz + xy z + x yz + x y z + xyz + x yz$

**UNIT NO. 7**

**WORLD WIDE WEB AND HTML (MAJOR PART  
COVER IN PRACTICAL**

**KNOWLEDGE BASE.30%**

1. Describe Web Browser.
2. What is home page in website?
3. Describe the purpose of a personal website?
4. Purpose of entertainment website?
5. Creation of the first HTML document.
6. Identify the tags used to mark-up HTML element.
7. Creates a Nested list in HTML document.
8. Define and create A hyperlink to the Anchor.
9. Define URL and Web hosting.
10. Describe HTML
11. Create an HTML code that contains a graphical hyperlink.

**UNDERSTANDING BASED.20%**

1. Define Uniform Resource Locator.
2. Describe web hosting and how does it work?
3. Purpose of business websites?
4. Purpose of entertainment website?
5. How creating a paragraph.
6. How using bold, underline and Italic tags.
7. Using superscript and subscript tags
8. How you will add a border to an image in HTML?.

**LONG QUESTIONS.**

1. Describe the following websites.  
i. Web portal    ii. Educational    iii. Business    iv. News
2. Create a Web page in HTML that displays image of a computer. The width of image should be 350 pixels and height 220 pixels.
3. Describe how background color and image are applied to Web page.