

BOARD OF SECONDARY EDUCATION KARACHI.
KARACHI, HYDERABAD, SUKKAR, LARKANA, MIR PUR KHAS BOARD.
S.S.C(ANNUAL) EXAMINATIONS 2023
COMPUTER STUDIES(THEORY) PAPER – II

Time: 3 Hours	CLASS - X (SCIENCE GROUP)	(Marks: 60)
	<u>SECTION "A" (20%)</u>	
	<u>MULTIPLE CHOICE QUESTIONS (MCQs)</u>	(12 Marks)
	<u>SECTION "B" (40%)</u>	
	<u>(SHORT ANSWERS QUESTIONS)</u>	(24 marks)
	<u>SECTION "C" (40%)</u>	
	<u>(DESCRIPTIVE ANSWER QUESTIONS)</u>	(24 Marks)

UNIT NO. 1 PROBLEM SOLVING AND ALGORITHM DESIGNING.

MULTIPLE CHOICE QUESTIONS.(MCQs) 20%

PAGE NO. 18 (STBB KARACHD): 2, 4, 5, 9, 10

SHORT ANSWERS QUESTIONS. 40%

1. Define the term problem.
2. Design a strategy for the solution of problem.
3. Define term algorithm
4. Discuss the importance of algorithm in problem solving
5. Define the flowchart.
6. Identify the different symbols used in flowchart designing.
7. Differentiate between algorithm and flowchart.

DESCRIPTIVE ANSWER QUESTIONS. 40%

1. What are the advantages of developing algorithms?
2. List any three advantages of designing flowcharts.
3. Difference between tree and graph data structure?
4. Design an algorithm to find area of a triangle.

UNIT NO. 2 BASICS OF PROGRAMMING OF C++.

MULTIPLE CHOICE QUESTIONS.(MCQs) 20%

PAGE NO. 40 (STBB KARACHD): 2, 3, 4, 6, 7, 10

SHORT ANSWERS QUESTIONS. 40%

1. Difference between Low-Level language and High- Level language.
2. Differentiate between syntax, runtime and logical errors.
3. Discuss about intergrade Development Environment (IDE) of C++
4. Difference between Constant and Variable.
5. Write two difference between machine and assembly language.
6. List any four advantages of using of IDE.
7. Difference between source code and object code.

DESCRIPTIVE ANSWER QUESTIONS. 40%

1. Write difference between Low-Level and High Level language.
2. Write difference between Machine and Assembly language.
3. List advantages of using an IDE.

UNIT NO. 3 INPUT/OUTPUT HANDLING IN C++.

MULTIPLE CHOICE QUESTIONS.(MCQs) 20%

PAGE NO. 67 (S.T.B.B. KARACHD): ii, iii, iv, v, vi

SHORT ANSWERS QUESTIONS. 40%

1. Explain basic structure of C++ program.
2. Differentiate between input and output functions.
3. Use escape sequence in any C++ Program.
4. Differentiate between Arithmetic operators and Relational operators.
5. Difference between Assignment operator and Equal to operator.

DESCRIPTIVE ANSWER QUESTIONS. 40%

1. Write a program in C++ using Arithmetic Assignment Operator.
2. Write a program to calculate the volume of a box.
3. Write a program of Marksheet takes input of five subjects, print its total and percentage also.

UNIT NO. 4 CONTROL STRUCTURE.

MULTIPLE CHOICE QUESTIONS.(MCQs) 20%

PAGE NO. 90 (S.T.B.B. KARACHD): i, iii, iv, vii,ix

SHORT ANSWERS QUESTIONS. 40%

1. Differentiate between if, IF-Else and switch decision making structures.
2. Define decision making structure.
3. Explain the concept of loop structure.
4. Differentiate between for, while and d-while loop structures and their use.
5. Explain the concept of nested loops.
6. Difference between, for, while and do-while loop structures.

DESCRIPTIVE ANSWER QUESTIONS. 40%

1. Which data type variables can be used in "switch" Statement?
2. Write a program to add numbers for 1 to 20

UNIT NO. 5 FUNCTIONS.

MULTIPLE CHOICE QUESTIONS.(MCQs) 20%

PAGE NO. 104 (S.T.B.B. KARACHD): 1, 3, 4, 7, 8

SHORT ANSWERS QUESTIONS. 40%

1. Differentiate between function declaration and function definition.
2. Difference between passing argument and return the value from function.
3. Difference between external variables and function local variables?
4. Write down the advantages of User-define functions in C++
5. Differentiate between function call and function definition.
6. Difference between Pre-define and User-define Function.
7. Difference between Local variables and Global Variables.
8. Why we use header files?

DESCRIPTIVE ANSWER QUESTIONS. 40%

1. Write a function that returns factorial of a given number.
2. List the five standard built-In functions with examples.
3. State the function declaration or function prototype.

UNIT NO. 6

DIGITAL LOGIC AND DESIGN.

MULTIPLE CHOICE QUESTIONS.(MCQs) 20%

PAGE NO. 121 (S.T.B.B. KARACH): 1, 2, 3, 6

SHORT ANSWERS QUESTIONS. 40%

1. Differentiate between NAND and NOR gate.
2. Why do we use Boolean Algebra?
3. Explain the purpose of Truth table.
4. Differentiate between basic and universal logic gate.
5. Simplify the following Boolean expression, $Z = AB + A(B+C) + B(B+C)$.

DESCRIPTIVE ANSWER QUESTIONS. 40%

1. Simplify the following Boolean expression. $Z = AB + S(BC+C) + B(B+C)$
2. Differentiate between NADN and NOR gate.

UNIT NO. 7

INTRODUCTION TO SCRATCH.

MULTIPLE CHOICE QUESTIONS.(MCQs) 20%

PAGE NO. 144 (S.T.B.B. KARACH): 1, 2, 3, 5

SHORT ANSWERS QUESTIONS. 40%

1. State the difference between repeat 10 and forever commands.
2. Difference between using Scratch online and offline?
3. Explain scope, possibilities and limitations of scratch
4. Explain the following: i. Script ii. Sprite iii. Backdrop

DESCRIPTIVE ANSWER QUESTIONS. 40%

1. Write the use of the following codes: forever, wait, say play sound, go to x,y.
2. What is the difference between using Scratch online and offline?
3. State the difference between repeat 10 and forever commands.