Max. Score: 60   **COMPUTER SCIENCE**   Time: 2 Hours

Qn. No.	Scoring Indicators	Split Score	Total Score
Answer any FIVE questions from 1 to 6		
1	Vaccum Tube	1	1
2	(c) NOT	1	1
3	Debugging	1	1
4	(c) Long OR long	1	1
5	Two dimensional array (2D array) OR Multi dimensional array	1	1
6	IP address	1	1
Answer any NINE questions from 7 to 18		
7	(a) 55 (Division process - ½, Answer - ½) (b) $(111001101)_2$ (Conversion process - ½, Answer - ½)	½ + ½ ½ + ½	2
8	PC, MAR, MBR, IR, Acc (Any 2) Content or explanation of each register	½ + ½ ½ + ½	2
9	Better communication, Effective analysis, Effective synthesis, Efficient coding (Any 2 advantages of flowchart)	1 + 1	2
10	Syntax error, logical error, run time error (Any 2) Explanation/Example of each.	½ + ½ ½ + ½	2
11	Defn. of variable. L-value and R-value (OR their explanation / Diagram)	1 + ½ + ½	2
12	Defn. / Explanation / Illustration of type conversion. Implicit /Type promotion and Explicit /Type casting (Or their explanation / Example)	1 ½ + ½	2
13	Single line and Multiline concept with symbol or explanation or example for comments in program	1 + 1	2
14	(a) Defn of array OR Example for an array OR Diagram of array (b) Defn / Explanation / Illustration of subscript	1 1	2
15	Defn. / Explanation of parameters/argument Formal parameter, Actual/Original parameter	1 ½ + ½	2
16	datatype functionName(arguments) { Body/Statements; return } OR A valid example with the above components	4 x ½	2
17	(a) Any valid point about Bluetooth (b) Any valid point about WiFi (Full Form gets 1 score)	1 1	2
18	Bring people together, Plan and organise events, Business promotion, Social skills, etc. (Any 2 advantages of social media)	1 + 1	2
Answer any NINE questions from 19 to 29		
19	(a) Any valid point about Abacus (b) Any valid point about Napier's Bones (c) Any valid point about Pascaline	1 1 1	3

Qn. No.	Scoring Indicators	Split Score	Total Score
20	(a) Any valid point about hexadecimal number system (b) Any valid point about ASCII (*Full form gets 1 score*) (c) NOR, NAND / Symbols of these OR Any valid point about these	1 1 1	3
21	Sign & Magnitude, 1's compliment, 2's compliment Explanation or Example of representation	½ + ½ + ½ ½ + ½ + ½	3
22	Reuse, Recycle, Incineration, Land filling (*Any 3*) Explanation of each	½ + ½ + ½ ½ + ½ + ½	3
23	Correct use of symbols, Correct flow (*Any 3 correct symbols - ½ score each*)	1½ + 1½	3
24	(a) Any valid point about character set of C++ (b) Defn / Explanation of tokens / Listing of any 2 tokens (c) Defn / Explanation / Examples for literals	1 1 1	3
25	Program structure, Variable declaration, Loop, Output (*Program with correct output without loop gets 2 score*)	½ + ½ 1½ + ½	3
26	Traversal, Sorting, Searching, Insertion, Deletion, Merging (*Any 3*) Explanation of each (*Any 2 operations with sufficient explanation - 1½ each.* *Listing of operations only - ½ score each*)	½ + ½ + ½ ½ + ½ + ½	3
27	(a) Use of gets() OR proper example (b) Use of putchar() OR proper example (c) Use of getline() OR proper example	1 1 1	3
28	Reduces program size, Less chance of error, Reduces complexity, Code reusability (*Any 3 advantages of modular programming*)	1 + 1 + 1	3
29	(a) Any valid point about spam (b) Any valid point about GPS (*Full form gets 1 score*) (c) Any valid point about Smart cards	1 1 1	3
Answer any TWO questions from 30 to 32			
30	(a) Explanation about the need of langauge processor (b) Assembler, Compiler, Interpreter Explanation of each	2 1½ 1½	5
31	(a) Concept of loop (b) Initialisation, Test, Update, Body Explanation / Valid code / Illustration of these components	1 4 x ½ = 2 4 x ½ = 2	5
32	(a) Defn. / Explanation of network protocol and network topology (b) Name of any three topologies Explanation / Diagram of each	1 + 1 1½ 1½	5
Total Score			**60 + 18**