



**SUMMATIVE ASSESSMENT - SECOND TERM**

**COMPUTER SCIENCE**

**Max. Marks: 50**

**Std - VII**

**Time: 2 Hrs**

<b>Name of the School:</b> <hr/>	<b>Name of the Student:</b> <hr/>
<b>Place:</b> <hr/>	<b>Roll No.:</b> <hr/>

**I. Fill in the blanks:** **5 x 1 = 5**

- 1. The color of the button on the touch sensor is \_\_\_\_\_.
- 2. The \_\_\_\_\_ block is present in the Flow tab.
- 3. The \_\_\_\_\_ is used to program the EV3 robot.
- 4. The \_\_\_\_\_ sensor distinguishes seven different colors.
- 5. \_\_\_\_\_ EV3 core kit is a robotic kit that lets you build and program starter robot models.

**II. State True or False:** **5 x 1 = 5**

- 6. Ultrasonic sensor cannot detect human subjects.
- 7. The touch sensor has two buttons that can detect touches.
- 8. The robot's rotational motion cannot be measured in EV3.
- 9. The EV3 brick is the central hub of the robot that controls every function of the robot.
- 10. The gyro sensor detects the rotation of your robot.

**III. Match the following:** **5 x 1 = 5**

- 11. Datatype - Turn on or off
- 12. Derived - Structure
- 13. User defined - CPU
- 14. EV3 Brick - Set of values
- 15. Medium Motor - Pointers

**IV. Choose the Correct answer from the help box:**

**5 x 1 = 5**

[detect touch, Ultra Sonic, bumped, sizeof, analog]

16. The \_\_\_\_\_ sensor is used to detect and measure the distance between objects by generating sound waves.
17. The touch sensor is an \_\_\_\_\_ sensor.
18. The touch sensor can be programmed to trigger any action using condition \_\_\_\_\_.
19. EV3 robot has a touch sensor that can \_\_\_\_\_.
20. \_\_\_\_\_ operator can use to get the exact size of a datatype.

**V. Answer the following: (Any 4)**

**4 x 2 = 8**

21. Write down the different datatypes in C.
22. Write an example for declaration of each primary datatype with variable names.
23. What are the different sensors that are part of the EV3 kit?
24. What is the use of the gyro sensor?
25. Define the function of a touch sensor.

**VI. Answer the following: (Any 4)**

**4 x 3 = 12**

26. What is Lego Mindstorms EV3?
27. Describe the functionality of the color sensor.
28. What are the datatypes present in derived datatype?
29. Define the function of an Ultra sonic sensor and its use in the EV3 robot.
30. What is a datatype in C?

**VII. Answer in detail: (Any 2)**

**2 x 5 = 10**

31. What are the main components of Lego Mindstorm EV3? Describe them.
32. Write a brief note on different datatypes present in C.
33. Write short notes on the following:
  - a) Touch Sensor
  - b) Gyro Sensor