SUMMATIVE ASSESSMENT – SECOND TERM

COMPUTER SCIENCE

Max. Marks: 50

Std - VII   **Time: 2 Hrs**

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

1. _____ keyword is used to define a structure.

2. The _____ is used to program the EV3 robot.

3. The _____ sensor distinguishes seven different colors.

4. The touch sensor is an _____ sensor.

5. The _____ block is present in the flow tab.

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

6. The robot's rotational motion cannot be measured in EV3.

7. EV3 software is used to program the EV3 robot.

8. "Char" is used to denote a character type.

9. The gyro sensor detects the rotation of your robot.

10. Ultrasonic sensor cannot detect human subjects.

III. Answer the following: (Any 5)   **5 x 2 = 10**

11. Write down the different datatypes in C.

12. Write an example for declaration of each primary datatype with variable names.

13. Define the function of a touch sensor.

14. Define the function of an ultrasonic sensor and its use in the EV3 robot.

15. What are the different sensors that are part of the EV3 kit?

16. What is Lego Mindstorms EV3?

IV. Answer in briefly: (Any 4)   **4 x 5 = 20**

17. Write a C program to show various datatypes and variable declaration in C.

18. Write the steps to assemble and code the EV3 robot.

19. Write short notes on the following.
   ✳ Gyro sensor   ✳ Touch sensor

20. Write an EV3 program to make the robot sense touch and the turn 180 degrees.

21. Predict the output of the given programs.

```c
# include <stdio.h>
int main()
{
float c=5.0
printf (" Temperature to Fahrenheit is % if", (9/5) * c + 32);
return 0;
}
```

Output = _____.

V. Answer the detail: (Any 1)   1 x 10 = 10

22. Write a brief note on different data types present in C.

23. What are the main components of lego mindstorm EV3? Describe them.