



Department of Education, Sabaragamuwa/weekly school

week- February 4

Subject-General Information Technology

Grade-12

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1. Draw the symbol of AND logic gate and write the truth table.
2. Draw the logic circuit for the following statement.  
 $F = (A \text{ AND } B) \text{ OR } (\text{NOT } C)$
3. Convert the binary number  $1010111_2$  into the decimal number. Write steps.
4. The following statement is about a computer system. Fill in the blanks using the given words in the brackets.

.....A..... gives the interface for a user to use the computer.....B..... supports to the resource management of the computer.....C..... is used to fulfill the specific tasks of the user.....D..... is an example for it.

(Windows 7, Utility programs, Operating systems, Application software, word processing software, Language translator programs)

5. It is planned to use a fire protection system with three sensors in a hospital for the protection of the hospital. The three sensors are,

- A - Flame identification sensor
- B - Smoke identification sensor
- C - Temperature identification sensor which is greater than  $90^{\circ}\text{C}$

At this point the emergency alarm rings when the other two or one activated with the flame identification sensor.

Create the logic circuit and the relevant Boolean statement to represent the above situation.