**Gulistan Academy**

Physics (10th) Max.Marks = 40

Chapter No.16 (Basic Electronics) Pass Marks = 20

**Time = 1 Hour** Teacher Name: M.Maaz

**Question No.1: Give short answers. (212 = 24)**

1. *What happens when a narrow beam of electrons is passed through a uniform electric field?*
2. *Name some uses of oscilloscope.*
3. *Name the factors which can enhance the thermionic emission.*
4. *What do you understand by digital and analogue quantities?*
5. *Differentiate between analogue and digital electronics.*
6. *In what ways is an oscilloscope a voltmeter?*
7. *NAND gate is the reciprocal of AND gate. Discuss.*
8. *Show that the circuit given blow acts as OR gate:*

*A Y*

*B*

1. *Draw the truth table for NAND gate.*
2. *Shortly explain the house safety alarm.*
3. *How can you compare the logic operation X=A.B with usual operation of multiplication?*
4. *What are logic gates?*

**Question No.2: (5+3 = 8)**

1. *What is Cathode Ray Oscilloscope? Write the working of its different parts.*
2. *How can you make an AND gate using only two NAND gates? Explain.*

**Question No.3: (5+3 = 8)**

1. *Write down any five benefits of using digital electronics over analogue electronics.*
2. *What are the three universal Logic Gates? Give their symbols and truth tables.*

***Best of luck***