

**II semester 2017 – 18**  
**Computer science – II**

**Std: XI Science Marks:50**

**Date:**

**Time:**

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**Q.1.A) Select the correct alternative and rewrite the following: 4**

- 1) The resistance of the resistor having color bands as Red, Black, Orange Gold is \_\_\_\_\_.  
a) 20K b) 2K c) 200 d) 25K
- 2) In case of AND gate, if A is true or B is true then Y is \_\_\_\_\_.  
a) true b) false c) high d) low
- 3) The width of a data bus is \_\_\_\_\_ bits .  
a) 8 b) 16 c) 4 d) none of these
- 4) Floppy disk is a \_\_\_\_\_ device  
a) input b) output c) I/O d) none of these

**B) Answer any two of the following: 6**

- 1) Differentiate between N type and P type semiconductor.
- 2) Explain concept of multimedia.
- 3) What are logic gates? Give its importance.

**Q.2.A) Answer any two of the following: 6**

- 1) Explain carbon composition resistor.
- 2) Give significance of logic gates.
- 3) Explain keyboard.

**B) Answer any one of the following: 4**

- 1) Explain half wave rectifier with the help of proper diagram. Draw waveforms.
- 2) Explain MOUSE and its actions.

**Q.3.A) Answer any two of the following: 6**

- 1) List and explain video monitor characteristics.
- 2) Explain concept of interrupts.
- 3) Explain Half adder.

**B) Answer any one of the following: 4**

- 1) Explain working of a decade counter.
- 2) Explain charging and discharging of a capacitor.

**Q.4.A) Answer any two of the following: 6**

- 1) Explain hard disk drive
- 2) Differentiate between active and passive components.
- 3) Explain EXOR gate.

**B) Answer any one of the following: 4**

- 1) What is ROM? Explain any three types of ROM.
- 2) Explain D flipflop.

**Q.5.A) Answer any two of the following: 10**

- 1) Explain transformer. Explain its principle of working
- 2) Explain concept of MODEM with the help of diagram. Give its steps of working.
- 3) State and explain I rule of Demorgans theorem.

**OR**

- 1) "NAND and NOR are called universal building blocks". Explain with three examples.
- 2) Explain Dot matrix printer.
- 3) What is an inductor? Explain three types of an inductor.