Name : .....

Roll No. : .....

Invigilator's Signature : .....

CS/B.Pharm(OLD)/SEM-1/CS-103/2009-10

2009

BASIC ELECTRONICS & COMPUTER APPLICATIONS

Time Allotted : 3 Hours *Full Marks* : 70

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

GROUP – A

(Multiple Choice Type Questions)

1. Choose the correct alternatives of the following : $10 \times 1 = 10$

   i) Analytical engine was developed by

      a) Von Numan b) Charles Babbage

      c) Herman Hollerith d) Bill Gates.

   ii) Chip plugged onto the motherboard in a computer system is

      a) LSI b) VLSI

      c) MSI d) XLSI.

   iii) The fastest memory in a computer system is

      a) Primary memory b) Secondary memory

      c) ROM d) Cache.

iv) LCD stands for

a) Liquid Colour Display

b) Light Colour Display

c) Lithium Crystal Display

d) Liquid Crystal Display.

v) Which of the following is an imaginary memory ?

a) Cache memory b) Virtual memory

c) Primary memory d) Register memory.

vi) *C* programming language is

a) object oriented programming language

b) procedural language

c) structured query language

d) web based language.

vii) Which one of the following is system software ?

a) Microsoft word b) Adobe Photoshop

c) Operating systems d) Oracle.

viii) PC stands for

a) Private Computer b) Personal Computer

c) Primary Computer d) None of these.

ix) UNIX is

a) Single user OS b) Multitasking OS

c) Multi-user OS d) Multi-dimension OS.

x) In a semiconductor arrow represents

a) N-type material b) P-type material

c) Both (a) and (b) d) None of these.

GROUP – B

(Short Answer Type Questions)

Answer any *three* of the following. 3 × 5 = 15

2. Discuss some characteristics of the computer.

3. Describe briefly different modes of transistor operation.

4. Describe key characteristics of computers of each generation.

5. Explain the difference between volatile and non-volatile memory. Write an example of each type of memory.

6. a) What are the main limitations of primary storage of a computer system ? 3

   b) Why is secondary storage used ? 2

7. What is software ? Describe briefly the different types of software. 1 + 4

GROUP – C

(Long Answer Type Questions)

Answer any *three* of the following. 3 × 15 = 45

8. a) What is flow-chart ? 2

   b) Describe briefly the advantages and limitations of flow-charts. 7

   c) Draw flow-chart for addition of n numbers. 6

9. a) What are the advantages and limitations of machine language ? 5

   b) What are the different between source code and object code ? 5

   c) Write an algorithm of *C* program of the equation $x^2 - 5x + 6 = 0$. 5

10. a) What is Operating Systems ? 2

b) Write some advantages and disadvantages of multi-user operating systems over multitasking. 6

c) What are the main functions of Operating Systems ? Write short note on different types of Operating Systems. 7

11. a) What is semiconductor ? Write some important properties of semiconductor. 5

b) What is Integrated Circuit ? What is the difference between integrated circuit over discrete circuit ? 2 + 3

c) Write short notes on any of the two components : Diode, Resistor, Capacitor. 5

12. a) What is virtual memory ? How is it useful ? 2 + 3

b) What are the applications of computers in Pharmaceutical laboratory ? 5

c) What is DOS stand for ? Write five DOS commands with its function. 5