Answer all questions   **Time : 3 Hours**

Q1.

Write short notes on the following topics:
- i. Generation of Computer
- ii. Input and Output devices
- iii. Software

Q2.
- i. Classify computers based on methods of processing
- ii. Describe how data and programs are represented in a computer.
- iii. Write name of two common coding systems and give the maximum number of characters each can handle.
- iv. Convert the following decimal numbers to binary, octal and hexadecimal system.
  - a) 32.375   b) 14.0625
- v. Describe various units of measuring storage of a Computer
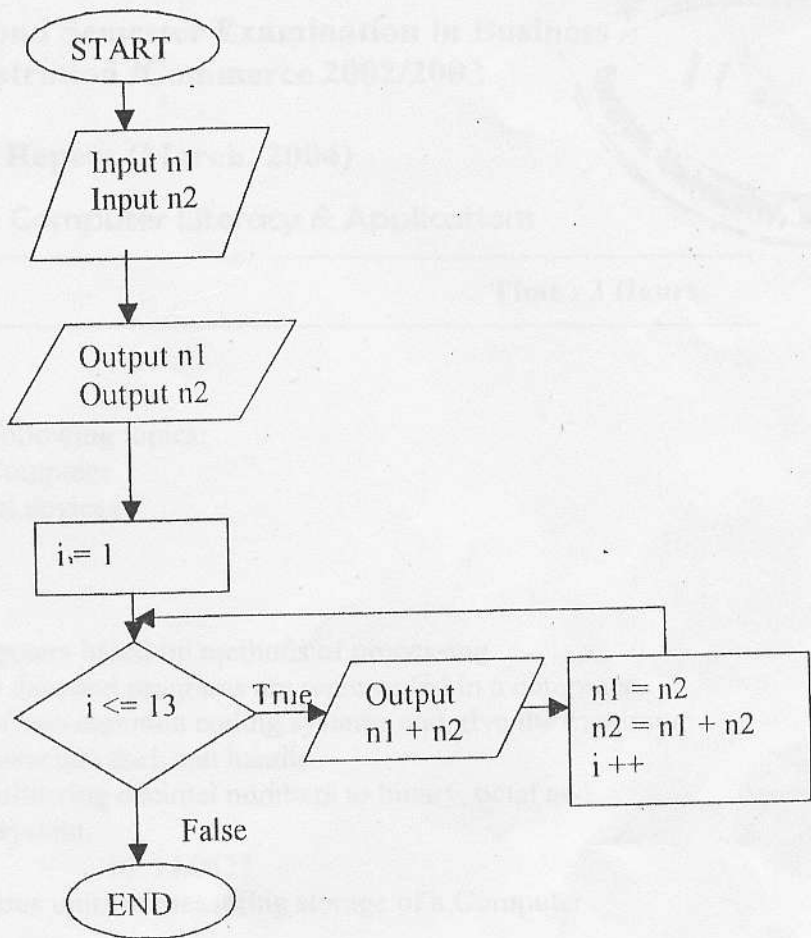
Q3.
- a. State the components of a Central Processing Unit (CPU) and explain the function of each.
- b. Why secondary storage media is important?
- c. List various secondary storage devices and briefly describe the characteristics of each.
- d. What is meant by Computer Virus and explain how they spread.

Q4.
- i. List different types of network and explain each.
- ii. What are the topologies available in Computer Network and explain each.
- iii. What are the services provided by the Internet?
- iv. List five types of servers and describe their purpose.

Q5.
- a. Define the terms "Algorithm" and "flow chart ". Explain the use of them in writing programs.
- b. Trace the following flow chart with given input values for n1 =2 and n2=3 and write down the output of the flow chart, where n1, n2 and i are integer type variables.

```
                    START

                  Input n1
                  Input n2

                  Output n1
                  Output n2

                  i = 1

         i <= 13    True    Output        n1 = n2
                            n1 + n2       n2 = n1 + n2
                                          i ++
            False

            END
```

c. State, in a few words, what is the function of the flow chart?
d. Write down the C++ code to implement the flow chart.