Answer all questions

Time allowed: 2 hours

1.

   (i)   Describe the two major components of a computer system

   (ii)   Computer hardware is made up of five parts. List and describe them.

   (iii)   Describe the two major categories of software.

   (iv)   List the levels of Computer languages and what are the primary differences between symbolic and high-level languages?

2.

   (a) Convert the following numbers into its equivalent binary numbers.
       i. 22421_{10}
       ii. 47145_8
       iii. $6B3F_{11}$
       iv. ADC_{16}

   (b) Convert the following binary numbers into its equivalent octal numbers.
       i.   11001010
       ii. 11111111
       iii. 10000101
       iv. 11110010

   (c) What is **Cache memory** and what is the purpose of it? Illustrate with a diagram.

   (d) Describe the applications of **Internet.**

   (e) Discuss **LAN** topologies

3

(a) Write down three functions of an operating system.

(b) Write short notes on any four of the following in the context of window-98
      i. My computer
     ii. Start menu
    iii. Recycle bin
    iv. Windows explorer
     v. Desk top

(c) Explain the usage of the following features in MS Word.
     i. Page setup
    ii. Replace
   iii. Header and footer
   iv. Change case

(d)

Name	Marks	Grade
Pirabah	95	
Sasi	75	
Roshan	45	

Write the formula in MS Excel to display the grades for the above data set. It should display the grades based on the following rules:
     i. If the marks is 90% or more, the grade is A

    ii. If the marks is 70% or more and less than 90%, the grade is B

   iii. If the marks is 50% or more and less than 70%, the grade is C,

      otherwise it is D

4

(a) Name and draw flow chart structures.

(b) Name the data types that can be used in QBASIC.

(c) Write a program that determines a student's grade. It reads three test scores (between and 100) and compute a student's grade based on the following rules:
     i. If the average score is 90% or more, the grade is A

    ii. If the average score is 70% or more and less than 90%, the grade is B

   iii. If the average score is 50% or more and less than 70%, the grade is C,

      otherwise it is D

(d) Code your algorithm in QBASIC.