

**PARUL INSTITUTE OF ENGINEERING & TECHNOLOGY
(DIPLOMA STUDIES)
COMPUTER DEPARTMENT
COMPUTER PROGRAMMING
DIWALI HOMEWORK- 2022**

SHORT QUESTIONS

1. Give Definition of flowchart. (Hint: briefly give introduction of what is flowchart)
2. Draw and list all symbols of flowchart.
3. Give Definition of an algorithm.
4. Give limitations of flowchart. (Hint: Mention disadvantages to draw flowchart)
5. List properties of algorithm. (Hint: List different applications of using an algorithm or list result of an algorithm i.e: an algo should be unambiguous)
6. Write advantages of C language.
7. What is operator? List various operators available in c.
8. Define Operand.
9. What is expression? Explain with simple example.
10. List or give other special operators.

LONG QUESTIONS

1. Give difference between flowchart and algorithm.(mention maximum 5 difference).
2. Write an algorithm and draw flowchart to find Maximum among three numbers.(a,b,c are given, we have to use logic of greater than symbol between elements)
3. Write an algorithm and draw flowchart to find Minimum among three numbers. (a,b,c are given, we have to use logic of less than symbol between elements)

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4. Write an algorithm and draw flowchart to check whether the given number is even or odd. (if number is divisible by two and whose remainder is zero than it is even number otherwise it is odd)
5. What is declaration & initialization of variable? Give Example.
6. Explain type conversion with example.
7. Explain Arithmetic operators with example.
8. Explain basic structure of C Program.

PRACTICALS / PROGRAMS

1. Write an algorithm and draw flowchart to find area of circle. (area of circle is $\pi * r^2$)
2. Write an algorithm and draw flowchart to find out square root of given numbers
3. Write an algorithm and draw flowchart to find area of Rectangle
4. Write an algorithm and draw flowchart to find cube of given number.
5. Write a c program to convert Fahrenheit to Celsius.
6. Write a c program to demonstrate basic datatypes.
7. Write a c program to find area of circle using constant.
8. Write a c program to find area of square and rectangle by input given from user.
9. Write a c program to Check Whether a Number is Positive or Negative.
10. Write a c program to Find the Area of a Triangle
11. Write a c program to Calculate the Percentage of 5 Subjects