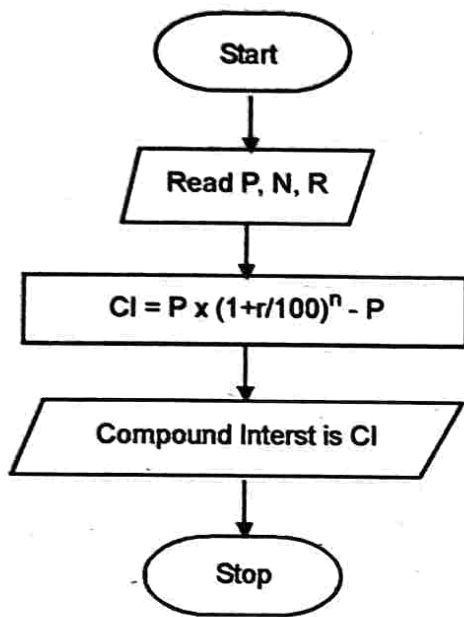## Qn. 17

Draw a flow chart to calculate compound interest.

കൂട്ടുപലിശ കണ്ടു പിടിക്കുന്നതിനുള്ള ഒരു flow chart വര യ്ക്കുക.
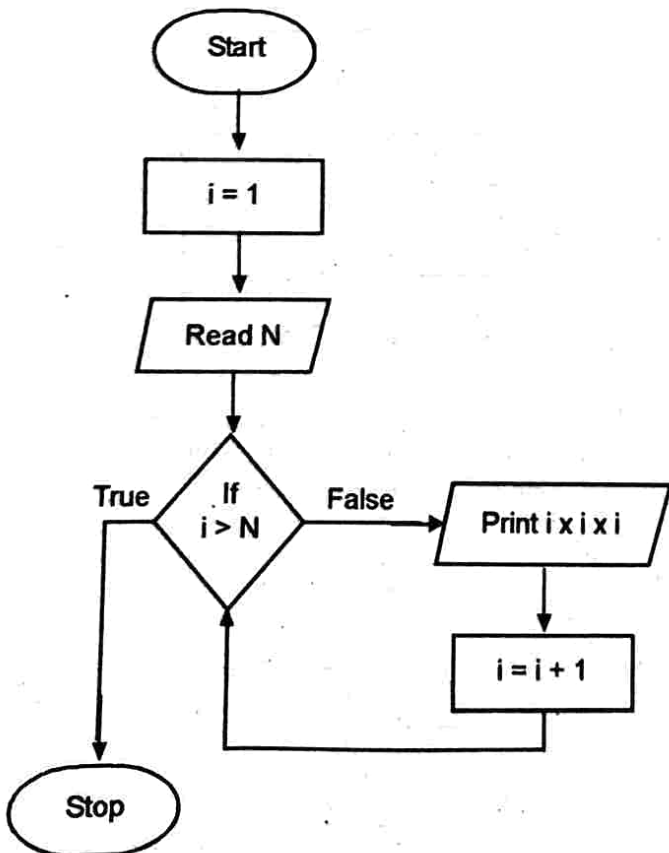
Ans

Qn. 18

Draw a flow chart to find the cube of n natural numbers (1,8,27,………n3)

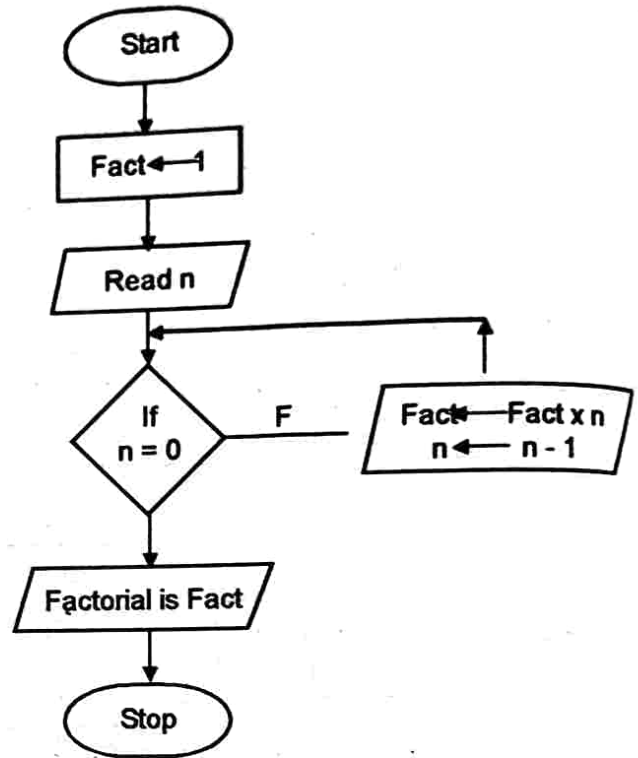n Natural numbers ന്റെ Cube കണ്ടുപിടിക്കുന്നതിനുള്ള ഒരു flow chart വരയ്ക്കുക.

Ans

Qn. 19

Draw a flow chart to read a number and find its factorial.

ഒരു നമ്പർ എടുത്ത് അതിന്റെ factorial കാണുതിനുള്ള ഒരു flow chart വരയ്ക്കുക.

Ans

Qn. 20

Mr. Vimal wants to represent a problem by using a flowchart, which symbols are used for this. Explain.

വിമലിന് ഒരു problem solve ചെയ്യുന്നതിനുള്ള ഒരു flow chart വരക്കണം. അതിനുള്ള symbols ഏതാണ് വിവരിക്കുക.
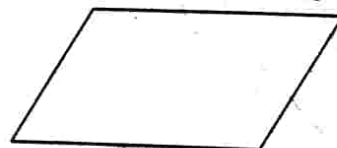
Ans Flow chart symbols are explained below

1) Terminal (Oval)

It is used to indicate the beginning and ending of a problem

2) Input/Output (parallelogram)

It is used to take input or print output.

3) Processing (Rectangle)
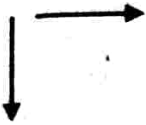

It is used to represent processing
That means to represent arithmetic operation such an addition, subtraction, multiplication....
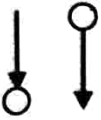
4) Decision (Rhombus)

It is used to represent decision making. One exit path will be executed at a time.

5) Flow lines (Arrows)

It is used to represent the flow of operation

6) Connector

These symbols will help us to complete the flow chart, which is not fit in a single page. A connector symbol is represented by a circle and a letter or digit is placed within the circle to indicate the link.

Qn. 21

Jeena uses algorithm to represent a problem while Neena uses flowchart which is better? Justify your answer?

ജീന algorithm വും നീന flow chart ഉം ഉപയോഗിച്ച് ഒരു problem represent ചെയ്യുന്നു. ഏതായിരിക്കും നല്ലത്? നിങ്ങ ളുടെ ഉത്തരത്തെ ന്യായീകരിക്കുക.

Ans Flow chart is better. The advantages of flow chart is given below.

1. Better communication:- A flow chart is a pictorial representation while an algorithm is a step by step procedure to solve a program. A programmer can easily explain the program logic using a flow chart.

2. Effective analysis :- The program can be analyzed effectively through the flow chart.

3. Effective synthesis :- If a problem is big it can be divided into small modules and the solution for each module is represented in flow chart separately and can be joined together to get the final system design.

4. Proper program documentation : A flow chart will help to create a document that will help the company in the absence of a programmer.

5. Efficient coding :- With the help of a flow chart it is easy to write program by using a computer language.

Qn. 22

A flow chart is a better method to represent a program. But it has some limitation what are they?

ഒരു program represent ചെയ്യുന്നതിനുള്ള നല്ല method flow chart ആണ്. പക്ഷേ അതിന് ചില പരിമിതികൾ ഉണ്ട്. ഏതൊക്കെയാണ് അത്.

Ans The limitations are given below

1) To draw a flowchart, it is time consuming and laborious work.

2) If any change or modification in the logic we may have to redraw a new flow chart.

3) No standards to determine how much detail can include in a flow chart.

Qn. 23

Match the following.
ചേരുംപടി ചേർക്കുക.

1) Problem identification	(a) Flowchart
2) Steps to obtain the solution	(b) Syntax Error
3) Coding	(c) Runtime Error
4) Translation	(d) COBOL
5) Debugging	(e) X-ray
6) Execution & Testing	(f) Compiler

Ans 1- e, 2 - a, 3 - d, 4 - f, 5 - b, 6 - c

Qn. 24

Alvis executes an error - free program but he got an error. Explain different types of error in detail.

ആൽവിസ് ഒരു error free program execute ചെയ്തു. പക്ഷേ അയാൾക്ക് കുറച്ച് error കിട്ടി. വിവിധ തരത്തിലുള്ള er- rors വിവരിക്കുക.

Ans There are two types of errors in a program before execution and testing phase. They are syntax error and logical error. When the programmer violates the rules or syntax of the programming language then the syntax error occurred. Eg: It involves incorrect punctuation. Key words are used for other purposes, violates the structure etc,... It detects the compiler and displays an error message that include the line number and give a clue of the nature of the error. When the programmer makes any mistakes in the logic, that types of errors are called logical error. It does not detect by the compiler but we will get a wrong output. The program must be tested to check whether it is error free or not. The program must be tested by giving input test data and check whether it is right or wring with the known results. The third type of errors are Runtime errors. This may be due to the in appropriate data while execution. For example consider B/C. If the end user gives a value zero for c, the execution will be interrupted because division by zero is not possible. These situation must be anticipated and must be handled.

Qn. 25

The following are the phases in programming. The order is wrong rearrange them in correct order.

താഴെ കൊടുത്തിരിക്കുന്നത് phase in programming ആണ്. അതിന്റെ order തെറ്റിച്ചാണ് കൊടുത്തിരിക്കുന്നത്. അതിനെ ശരി യായി arrange ചെയ്യുക.

1. Debugging
2. Coding
3. Derive the steps to obtain the solution
4. Documentation
5. Translation
6. Problem identification
7. Execution and testing

Ans The correct order is given below.
1. Problem identification
2. Derive the steps to obtain the solution
3. Coding
4. Translation
5. Debugging
6. Execution and testing
7. Documentation

Qn. 26   **(MARCH - 2015)**

Draw a flow chart to input ten different numbers and find their average. **(3)**

പത്ത് വ്യത്യസ്ത സംഖ്യകൾ ഇൻപുട്ട് ചെയ്യുവാനും അവയുടെ ശരാശരി കണ്ടുപിടിക്കുന്നതിനും വേണ്ടിയുള്ള flow chart വര യ്ക്കുക.

Ans