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Subject # C++

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(01)

ANS # (01) part "A"

```
# include <iostream>
```

```
using namespace std;
```

```
int main (0)
```

```
{ int marks
```

```
cout << "----- program to find grad --" << endl;
```

```
cout << " | n Enter marks: ";
```

```
cin >> marks;
```

```
if ((marks >= 90 && marks <= 100)
```

```
cout << " your grade is A. ";
```

```
else if (marks >= 80 && marks < 90)
```

```
cout << " your grade is A. ";
```

```
else if (marks >= 70 && marks < 80)
```

```
cout << " your grade is C. ";
```

```
else if (marks >= 0 && marks < 60)
```

```
cout << " your grad is F. ";
```

```
else cout << " Invalid marks. "; return 0;
```

```
}
```

this is how we create a simple
grading software using if
statement in C++

ANS: (01);

(b) Differentiate between

"IF-Statement" & "IF-else Statement."

IF-Statement

* Sometime we want selectively a block of code

* when expression is true the block code is executed

* if logical expression is false we take a different path through diagram

* Block of code that always execute if true

* this code is difficult to read.

IF-Else-Statement

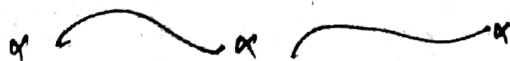
Sometime we need to handle two alternative in our code.

if logical expression is true we take one path through diagram

if logical expression is false we take another path.

Block of code to Block execute if false

this code is short but easy to read



(03)

Ans: 02: Program to display a menu to perform various functions using "Switch Statement";

Switch (expression)

{

Case value-1:

block-1;

break;

Case value-2:

block-2;

break;

Case value-3:

block-3;

break;

Case value-4:

block-4;

break;

default:

default-block;

break;

}

ANS; # (02)

part # (B)

IF - ELSE

*.) which statement will be executed depend upon the output of the expression inside if statement.

*.) if else statement use multiple statement for multiple choice.

*.) if else statement evaluate integer, character pointer etc.

*.) Either if statement will be executed or statement executed.

*.) It is difficult to edit the - if - else statement if nested as use

Switch

which statement will be executed is decide by user.

Switch statement use single expression for multiple choice

Switch statement evaluate only character

Switch statement execute one state case after another.

it is easy to edit switch case they recognize easily

Ans#03;

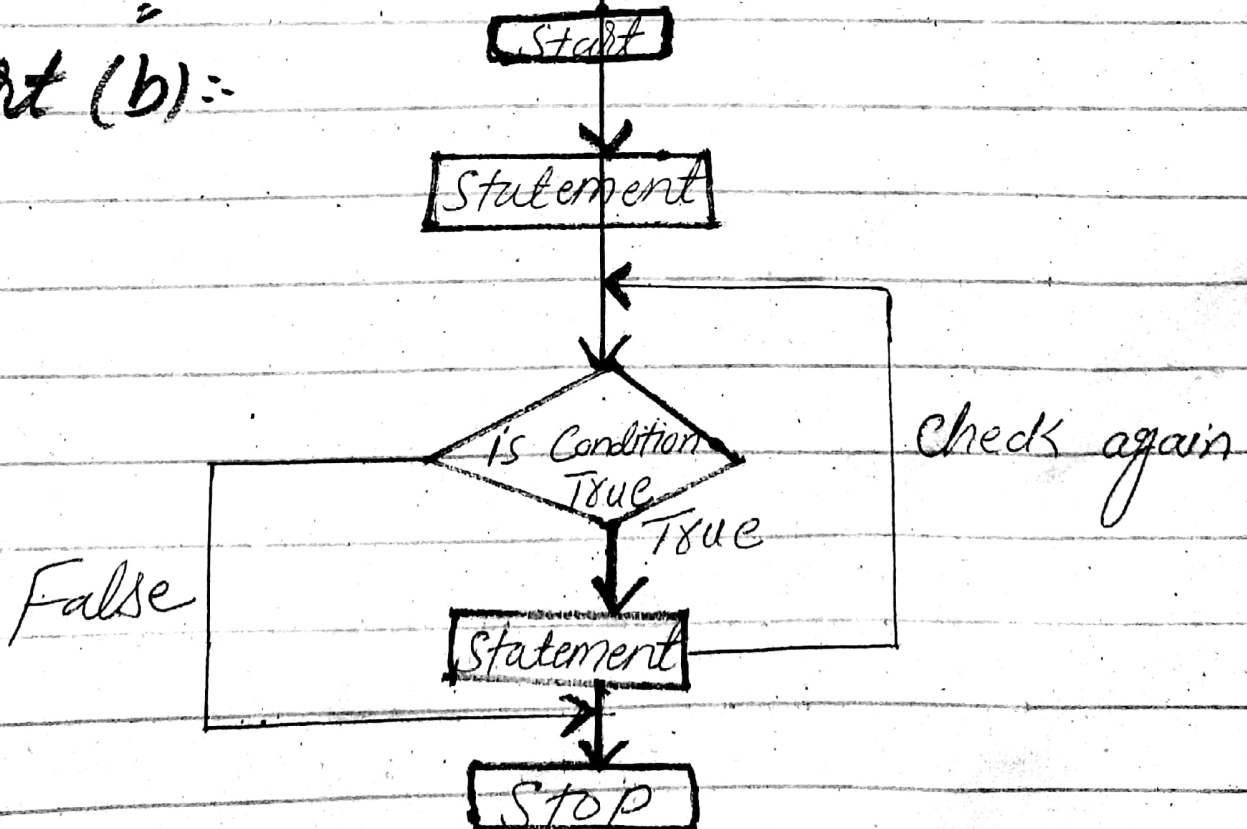
A Relational operator

is a programming language construct or operator that tests or defines some kind of relation b/w two entities.

These include numerical equality (e.g $5=5$) and inequalities eg ($4 > 3$)

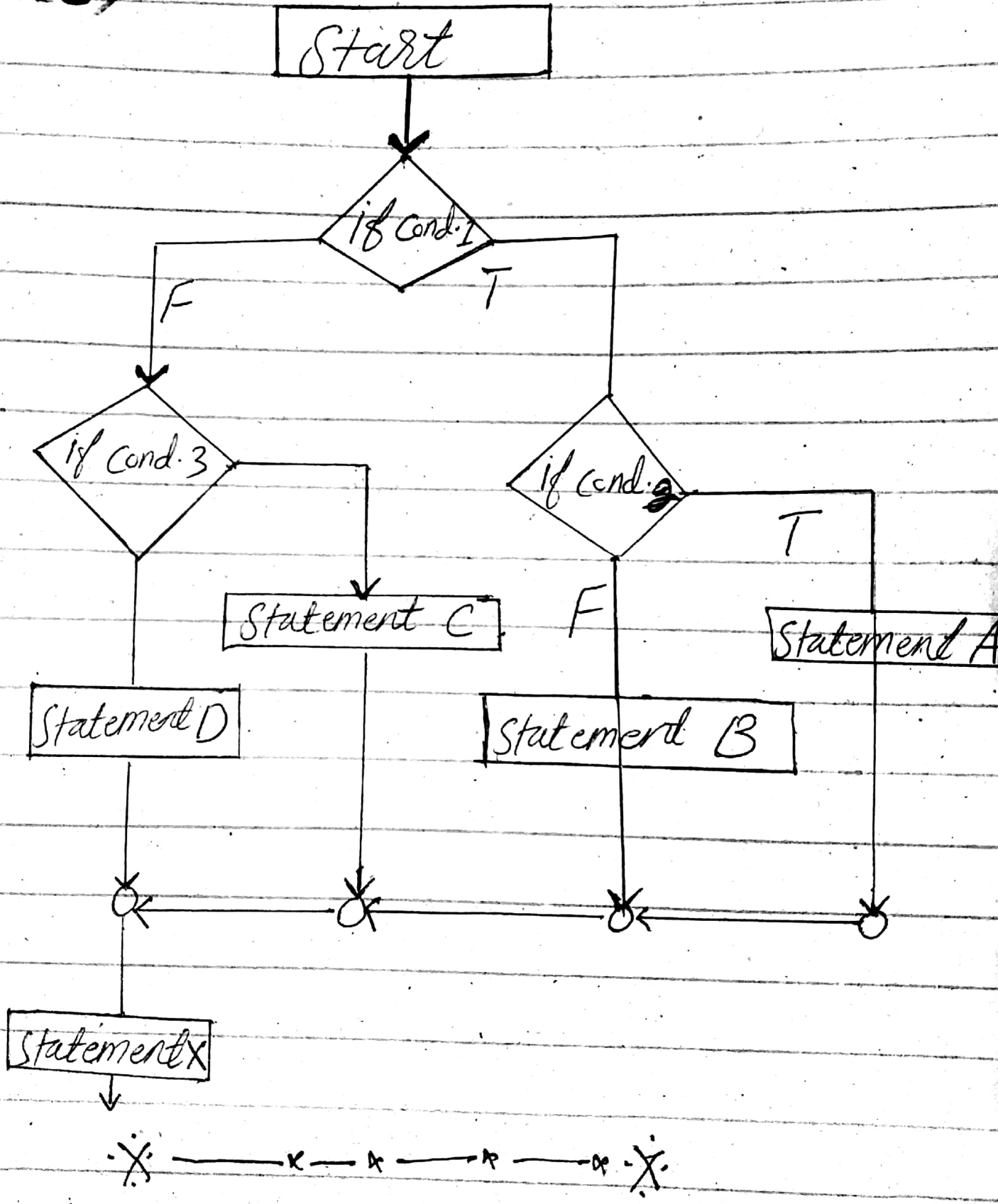
An expression created using a relation operator forms what is termed a relational expression or a condition. Relational operators can be seen as special case of logical predicates.

Part (b):



ANS # 3
part (B)

(06)



(07)

Ans: 04: • C++ program to calculate
"a": Volume of cylinder.

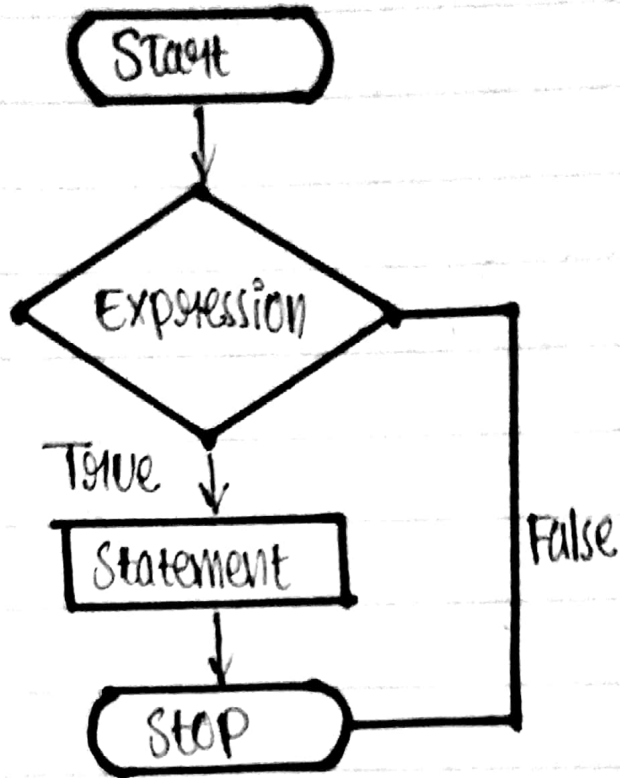
• Formula:

Volume = $3.14 \times \text{Radius} \times \text{Radius} \times \text{Height}$
will be used to calculate volume of
cylinder in C++.

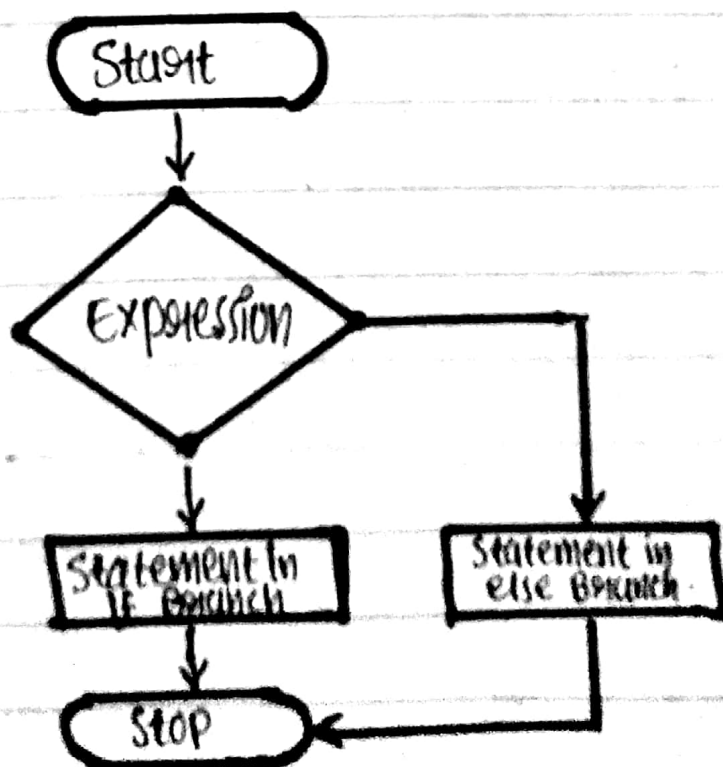
```
#include <iostream>
using namespace std;
int main ()
{
float radius, height, volume;
cout << "Enter Radius of cylinder: ";
cin >> radius;
cout << "Enter Height of cylinder: ";
cin >> height;
volume = 3.14 * radius * radius * height;
cout << "Volume of cylinder is: ";
return 0;
}
```


(08)

Ans, 04: Flowchart of if Statement,
'b':



: Flowchart of if-else statement:



ANS 05 (a)

Sequential Statement.

Generally Sequence of Statements are written in order to accomplish a specific activity. So statements are executed in order they are specified in programs. This way of executing statement sequentially is known as Sequential Control Statement. There is an advantage that is no separate control statement are. They are no way to change sequence. The solution for this is branching. We are already aware of branching. We have already studied all basic branching and loop control structure and sample program already explained.

ANS # 05 (b)

```
#include <iostream.h>
```

```
#include <conio.h>
```

```
void main()
```

```
{
```

```
int a, b, c, d, e, f, g
```

```
clrscr();
```

```
cout << "\n Enter first number a: ";
```

```
cin >> a;
```

```
cout << "\n Enter second number b: ";
```

```
cin >> b;
```

```
c = a + b;
```

```
d = a - b;
```

```
e = a * b;
```

```
f = a / b;
```

```
g = a % b;
```

```
cout << " addition = " << c << "\n";
```

```
cout << " Subtraction = " << d << "\n";
```

```
cout << " multiplication = " << e << "\n";
```

```
cout << " division = " << f << "\n";
```

```
cout << " modulus = " << g << "\n";
```

```
getch();
```