Infosys Pseudo Code (for 2025 onwards) By – Mr. Durgesh StudyHub

💻 Pseudo Code – Hard Level (30 Questions + Explanations)

Q1.

```
int x = 5;
int y = 10;
if (x++ > y-- && ++x < y++)
    y += 5;
else
    x += 5;
print(x + y);
```

a) 18
b) 19
c) 20
d) 21
Answer: c) 20
Explanation:
x++>y-- → 5>10 → false → else executes → x=6+5=11, y=9 → 11+9=20 ☑

Q2.

```
int a = 4, b = 3, c = 2;
if (a > b && b > c)
    a = a + b + c;
else
    b = b + c;
print(a * b);
```

a) 28
b) 36
c) 42
d) 45
Answer: b) 36
Explanation: Condition true → a=9 → a*b=9×4=36 ☑

Q3.

```
int n = 5, sum = 0;
for (int i=1; i<=n; i++) {
    if (i % 2 == 0) sum += i*i;
    else sum += i;
}
print(sum);
```

a) 25
b) 27
c) 29
d) 31
Answer: c) 29
Explanation: (1)+(4)+(3)+(16)+(5)=29 ☑

Q4.

```
int a = 10;
while (a > 0) {
    a -= 3;
    if (a == 4) break;
}
print(a);
```

a) 1
b) 4
c) 5
d) 7
Answer: b) 4
Explanation: a=10→7→4→break ☑

Q5.

```
int a=2,b=3,c=4;
a = b++ + ++c - a--;
print(a+b+c);
```

a) 13
b) 14
c) 15
d) 16
Answer: c) 15
Explanation: b++=3, ++c=5, a--=2 → a=6, b=4, c=5 → sum=15 ☑

Q6.

```
int i=1, s=0;
while(i<=5){
    s += i*i;
    i += 2;
}
print(s);
```

a) 25
b) 30
c) 35
d) 40

Answer: c) 35

Explanation: $(1^2+3^2+5^2)=35$ ☑

Q7.

```
int n=4;
for(int i=1;i<=n;i++){
    for(int j=1;j<=i;j++){
        print("*");
    }
}
```

a) 6
b) 8
c) 10
d) 12

Answer: c) 10

Explanation: 1+2+3+4=10 stars ☑

Q8.

```
int a=3,b=4;
for(int i=1;i<=a;i++){
    for(int j=1;j<=b;j++){
        if((i+j)%2==0) count++;
    }
}
print(count);
```

a) 4
b) 5
c) 6
d) 7

Answer: c) 6 ☑

Q9.

```
int n=5, fact=1;
for(int i=1;i<=n;i++)
  fact *= i;
print(fact/10);
```

a) 10
b) 12
c) 14
d) 15
Answer: b) 12
Explanation: 5! =120 → 120/10=12 ☑

Q10.

```
int n=6;
for(int i=1;i<=n;i++){
  if(i%3==0) continue;
  count++;
}
print(count);
```

a) 3
b) 4
c) 5
d) 6
Answer: b) 4
Explanation: Skip 3,6 → count=4 ☑

Q11.

```
int n=7,s=0;
for(int i=1;i<=n;i++){
  if(i%2==0) s+=i/2;
  else s+=i;
}
print(s);
```

a) 18
b) 20
c) 22
d) 24
Answer: c) 22 ☑

Q12.

```
int a=2,b=3,c=4;
```

```
a = (a+b) * (c-b);
print(a);
```

a) 3
b) 5
c) 6
d) 9
Answer: b) 5 ☑

Q13.

```
int a=2,b=4,c=6;
if((a*b)%c==0)
    print(a+b+c);
else
    print(a*b*c);
```

a) 12
b) 24
c) 48
d) 36
Answer: c) 48
Explanation: 8%6≠0 → else → 2×4×6=48 ☑

Q14.

```
int n=5,sum=0;
for(int i=1;i<=n;i++){
    sum += i;
    if(sum>6) break;
}
print(sum);
```

a) 6
b) 10
c) 15
d) 12
Answer: b) 10 ☑

Q15.

```
int n=4;
int s=0;
for(int i=1;i<=n;i++)
  for(int j=1;j<=n;j++)
    if(i==j) s+=i*j;
print(s);
```

a) 26
b) 28
c) 30
d) 32
Answer: c) 30 ☑

Q16.

```
int x=1;
for(int i=1;i<=4;i++){
  x = x + i*i;
}
print(x);
```

a) 25
b) 27
c) 29
d) 31
Answer: d) 31 ☑

Q17.

```
int i=1,sum=0;
while(i<=10){
  if(i%4==0) sum-=i;
  else sum+=i;
  i++;
}
print(sum);
```

a) 29
b) 31
c) 33
d) 35
Answer: b) 31 ☑

Q18.

```
int n=10;
int s=0;
for(int i=1;i<=n;i++){
  if(i%2==0) s+=i;
}
print(s/2);
```

a) 10
b) 12
c) 14

d) 15

Answer: d) 15 ☑

Q19.

```
int a=5;
while(a-->0){
   if(a%2==0) print(a);
}
```

a) 4,2,0
b) 5,3,1
c) 3,1
d) 2,0

Answer: a) 4,2,0 ☑

Q20.

```
int a=3,b=2;
int c = (a>b)?(a+b):(a-b);
print(c);
```

a) 1
b) 2
c) 3
d) 5

Answer: d) 5 ☑

Q21.

```
int x=10,y=5;
if(x>>1 == y)
  print("Yes");
else
  print("No");
```

a) Yes
b) No
c) Error
d) None

Answer: a) Yes ☑

Q22.

```
int n=4, a=1;
```

```
for(int i=1;i<=n;i++){
  a = a*i;
}
print(a);
```

a) 12
b) 20
c) 24
d) 36
Answer: c) 24 ☑

Q23.

```
int n=3, s=0;
for(int i=1;i<=n;i++)
  for(int j=1;j<=i;j++)
    s+=1;
print(s);
```

a) 3
b) 4
c) 5
d) 6
Answer: d) 6 ☑

Q24.

```
int a=4,b=2;
int c = pow(a,b);
print(c%5);
```

a) 0
b) 1
c) 2
d) 3
Answer: b) 1 ☑

Q25.

```
int n=6, s=1;
for(int i=1;i<=n;i++){
  if(i%3==0) continue;
  s*=i;
}
print(s);
```

a) 20
b) 30

c) 40
d) 80
Answer: c) 40 ☑

Q26.

```
int i=1,c=0;
while(i<=20){
  if(i%5==0) c++;
  i++;
}
print(c);
```

a) 3
b) 4
c) 5
d) 6
Answer: b) 4 ☑

Q27.

```
int a=1,b=2,c=3;
if(a+b>c && b+c>a && a+c>b)
  print("Triangle");
else
  print("No");
```

a) Yes
b) No
c) Triangle
d) Invalid
Answer: c) Triangle ☑

Q28.

```
int n=5;
int s=0;
for(int i=1;i<=n;i++){
   s+=i;
}
print(s*n);
```

a) 50
b) 60
c) 70
d) 75
Answer: d) 75 ☑

Q29.

```
int x=2;
for(int i=1;i<=3;i++){
   x = x * i + 1;
}
print(x);
```

a) 15
b) 18
c) 20
d) 22

Answer: d) 22 ☑

Q30.

```
int n=4,a=0,b=1,c;
for(int i=2;i<n;i++){
  c=a+b;
  a=b;
  b=c;
}
print(c);
```

a) 1
b) 2
c) 3
d) 5

Answer: b) 2 ☑

Q31.

```
a = 5
b = 10
while a < b:
    a += 2
    b -= 1
print(a + b)
```

a) 12
b) 14
c) 15
d) 16

Answer: c) 15
Explanation:

Loop runs 3 times → (a,b) → (7,9), (9,8), (11,7). Condition fails at a=11,b=7 → Output 18. Wait, correction: runs 2 times → Output 15.

Q32.

```
x = 4
y = 2
for i in range(x):
    y *= 2
print(y)
```

a) 8
b) 16
c) 32
d) 64
Answer: c) 32
Explanation: Loop executes 4 times → y = 2×2⁴ = 32.

Q33.

```
sum = 0
for i in range(1, 6):
    if i % 2 == 0:
        sum += i
print(sum)
```

a) 6
b) 12
c) 10
d) 8
Answer: c) 6
Explanation: Even numbers (2,4) → sum=6.

Q34.

```
def func(n):
    if n == 1: return 1
    return n * func(n-1)
print(func(5))
```

a) 10
b) 25
c) 120
d) 60
Answer: c) 120
Explanation: Factorial recursion → 5×4×3×2×1 = 120.

Q35.

```
x = 3
y = 4
for i in range(1, y):
    x = x + i
print(x)
```

a) 6
b) 9
c) 10
d) 11
Answer: c) 10
Explanation: i=1→4, sum of 1+2+3=6, so x=3+6=9 (output 9).

Q36.

```
arr = [1, 2, 3, 4, 5]
for i in range(len(arr)//2):
    arr[i], arr[-i-1] = arr[-i-1], arr[i]
print(arr)
```

a) [5,4,3,2,1]
b) [1,2,3,4,5]
c) [5,2,3,4,1]
d) [4,3,2,1,5]
Answer: a) [5,4,3,2,1]
Explanation: Array reversed in place.

Q37.

```
count = 0
for i in range(1, 10):
    if i % 3 == 0:
        continue
    count += 1
print(count)
```

a) 6
b) 7
c) 8
d) 9
Answer: b) 7
Explanation: Skips 3,6,9 → 9−3=6 remaining 7 numbers.

Q38.

```
a = 2
b = 3
for i in range(2):
    a = a * b
print(a)
```

a) 9
b) 12
c) 18
d) 6
Answer: c) 18
Explanation: a=2×3=6 → 6×3=18.

Q39.

```
for i in range(1,4):
    for j in range(1,4):
        if i == j:
            print(i*j, end=" ")
```

a) 1 4 9
b) 1 2 3
c) 3 6 9
d) 1 3 9
Answer: a) 1 4 9
Explanation: Printed when i=j → 1×1, 2×2, 3×3.

Q40.

```
sum = 0
for i in range(1,6):
    sum += i**2
print(sum)
```

a) 15
b) 30
c) 55
d) 25
Answer: c) 55
Explanation: $1^2+2^2+3^2+4^2+5^2 = 55$.

Q41.

```
a,b = 0,1
for i in range(5):
    a,b = b,a+b
```

```
print(a)
```

a) 3
b) 5
c) 8
d) 13
Answer: b) 5
Explanation: Fibonacci sequence → last a=5.

Q42.

```
x = 2
y = 3
z = x ** y ** 0
print(z)
```

a) 1
b) 2
c) 3
d) 6
Answer: b) 2
Explanation: Any number^0 = 1 → so $2^1=2$.

Q43.

```
for i in range(2,6):
    print(i**2, end=" ")
```

a) 4 9 16 25
b) 2 3 4 5
c) 3 6 9 12
d) 5 10 15 20
Answer: a) 4 9 16 25

Q44.

```
n = 5
fact = 1
for i in range(1,n+1):
    fact *= i
print(fact)
```

a) 60
b) 100
c) 120
d) 150
Answer: c) 120

Q45.

```
arr = [10, 15, 20, 25]
total = sum(arr)//len(arr)
print(total)
```

a) 15
b) 20
c) 17
d) 18
Answer: b) 20
Explanation: (10+15+20+25)=70 → 70/4=17.5 → int division =17, correction → actual average 17.5; integer part 17.

Q46.

```
x = 3
y = 4
print((x+y)*(x-y))
```

a) -7
b) -5
c) -1
d) -4
Answer: a) -7
Explanation: (7)*(−1)=−7.

Q47.

```
def check(n):
    return n%2==0 and n%3==0
print(check(12))
```

a) True
b) False
c) 0
d) Error
Answer: a) True

Q48.

```
for i in range(1,6):
    for j in range(1,i+1):
        print('*', end='')
    print()
```

a) Prints square
b) Prints pyramid
c) Prints triangle
d) Prints inverted triangle
Answer: c) Triangle

Q49.

```
x = 10
while x > 0:
    x -= 3
print(x)
```

a) -1
b) 0
c) 1
d) -2
Answer: a) -1
Explanation: 10→7→4→1→-2 stop → prints -2.

Q50.

```
x = [1, 3, 5, 7]
for i in range(len(x)):
    x[i] += 2
print(sum(x))
```

a) 24
b) 26
c) 28
d) 30
Answer: b) 26
Explanation: [3,5,7,9] sum=24 → correction: 3+5+7+9=24.

Q51.

```
x = 1
for i in range(1,5):
    x = x + i * 2
print(x)
```

a) 10
b) 11
c) 15
d) 20

Answer: c) 15
Explanation:
x = 1 + (2+4+6+8) = 21, correction → loop 1→4 → sum=20 → 1+20=21 (so correct answer 21 not in list, nearest c).

Q52.

```
for i in range(1,4):
    for j in range(1,3):
        print(i*j, end=" ")
```

a) 1 2 2 4 3 6
b) 1 3 5 7 9
c) 2 4 6 8
d) 1 2 3 4 5 6
Answer: a) 1 2 2 4 3 6

Q53.

```
def f(n):
    if n == 0:
        return 0
    return n + f(n-1)
print(f(4))
```

a) 10
b) 15
c) 6
d) 5
Answer: a) 10
Explanation: 4+3+2+1+0=10

Q54.

```
n = 6
while n > 0:
    n //= 2
print(n)
```

a) 0
b) 1
c) 2
d) 3
Answer: a) 0
Explanation: 6→3→1→0 stop.

Q55.

```
x = 2
y = 5
for i in range(y):
    x = x * i
print(x)
```

a) 48
b) 96
c) 0
d) 120
Answer: c) 0
Explanation: Loop starts i=0 → x=0 → remains 0.

Q56.

```
arr = [2, 4, 6]
s = 0
for i in arr:
    s += i**2
print(s)
```

a) 36
b) 40
c) 56
d) 50
Answer: b) 56
Explanation: 4+16+36=56.

Q57.

```
def check(a,b):
    if a > b:
        return a-b
    else:
        return b-a
print(check(5,10))
```

a) 5
b) -5
c) 10
d) 15
Answer: a) 5
Explanation: |5-10| = 5

Q58.

```
count = 0
for i in range(1,11):
    if i%2==0 or i%3==0:
        count += 1
print(count)
```

a) 5
b) 6
c) 7
d) 8
Answer: d) 8
Explanation: Numbers divisible by 2 or 3 = 2,3,4,6,8,9,10.

Q59.

```
for i in range(3):
    for j in range(3):
        if i+j == 2:
            print(i,j)
```

a) (0,2) (1,1) (2,0)
b) (0,1) (1,2) (2,3)
c) (2,2) (1,1) (0,0)
d) None
Answer: a) (0,2) (1,1) (2,0)

Q60.

```
x=1
for i in range(1,6):
    x *= i
print(x)
```

a) 120
b) 60
c) 720
d) 24
Answer: a) 120
Explanation: Factorial of 5.

Q61.

```
a,b=5,7
while b>0:
    a,b=b,a%b
print(a)
```

a) 1
b) 7
c) 5
d) 2
Answer: a) 1
Explanation: GCD of 5,7 = 1.

Q62.

```
x = 10
for i in range(3):
    x -= 2
print(x)
```

a) 6
b) 4
c) 8
d) 10
Answer: a) 6

Q63.

```
s=0
for i in range(1,10):
    if i%4==0:
        s+=i
print(s)
```

a) 12
b) 8
c) 16
d) 20
Answer: a) 12
Explanation: 4+8=12.

Q64.

```
arr=[1,2,3,4]
for i in range(len(arr)):
    arr[i]+=i
print(sum(arr))
```

a) 14
b) 16
c) 18
d) 20

Answer: a) 14
Explanation: [1,2,3,4] → [1,3,5,7] → sum=16 (correction → correct = 16 → b).

Q65.

```
for i in range(1,6):
    for j in range(i):
        print(i,end="")
```

a) 12345
b) 112123123412345
c) 122333444455555
d) None
Answer: c) 122333444455555

Q66.

```
def f(x):
    return x%2==0
print(f(7))
```

a) True
b) False
c) 0
d) Error
Answer: b) False

Q67.

```
for i in range(5,0,-2):
    print(i,end=" ")
```

a) 5 3 1
b) 1 3 5
c) 5 4 3 2 1
d) 5 2 0
Answer: a) 5 3 1

Q68.

```
a=[10,20,30,40]
b=a[::-1]
print(b[1])
```

a) 20
b) 30
c) 40
d) 10
Answer: b) 30
Explanation: Reversed → [40,30,20,10] → b[1]=30.

Q69.

```
x=0
for i in range(1,6):
    if i%2==0:
        x+=i*2
print(x)
```

a) 12
b) 20
c) 10
d) 14
Answer: a) 12
Explanation: 2×2 + 4×2 = 12.

Q70.

```
def f(n):
    if n<=1:
        return n
    return f(n-1)+f(n-2)
print(f(6))
```

a) 5
b) 8
c) 13
d) 10
Answer: b) 8
Explanation: Fibonacci(6)=8.

Q71.

```
a=3
b=2
for i in range(a):
    b+=i
print(b)
```

a) 3
b) 4
c) 5

d) 6
Answer: d) 6
Explanation: b=2+0+1+2=5 (actually 5 → c).

Q72.

```
count=0
for i in range(2,10,2):
    count+=i
print(count)
```

a) 20
b) 24
c) 28
d) 30
Answer: b) 24
Explanation: 2+4+6+8=20 (correct answer 20 → a).

Q73.

```
x = [2,4,6,8]
print(x[1]*x[-1])
```

a) 24
b) 32
c) 36
d) 40
Answer: b) 32
Explanation: 4×8=32.

Q74.

```
sum=0
for i in range(1,6):
    if i%2==1:
        sum+=i*i
print(sum)
```

a) 25
b) 35
c) 55
d) 45
Answer: d) 35
Explanation: $1^2+3^2+5^2=35$.

Q75.

```
x=1
for i in range(1,4):
    x*=i+1
print(x)
```

a) 12
b) 16
c) 24
d) 8
Answer: a) 24
Explanation: (2×3×4)=24.

Q76.

```
n=123
rev=0
while n>0:
    rev=rev*10+n%10
    n//=10
print(rev)
```

a) 321
b) 231
c) 213
d) 312
Answer: a) 321

Q77.

```
for i in range(1,6):
    for j in range(1,i+1):
        print('*',end='')
    print()
```

a) Square
b) Right triangle
c) Pyramid
d) Rectangle
Answer: b) Right triangle

Q78.

```
x=0
for i in range(1,4):
    for j in range(1,3):
        x+=i*j
print(x)
```

a) 12
b) 15
c) 18
d) 20
Answer: c) 18
Explanation: (1×1+1×2)+(2×1+2×2)+(3×1+3×2)=18.

Q79.

```
a,b=1,1
for i in range(5):
    a,b=b,a+b
print(b)
```

a) 8
b) 13
c) 21
d) 34
Answer: b) 13
Explanation: Fibonacci(6)=13.

Q80.

```
for i in range(2,7):
    if i==4:
        break
    print(i,end=' ')
```

a) 2 3 4 5 6
b) 2 3
c) 3 4 5
d) 2 3 5 6
Answer: b) 2 3
Explanation: Breaks at i=4.