



DEV BHOOOMI UTTARAKHAND UNIVERSITY

Placement Oriented Training – Question Bank

Topic: Pattern Based Programming

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This question bank is designed to strengthen logical thinking and coding skills required for placement-oriented programming rounds. The difficulty level progresses from basic patterns to advanced reset-based patterns frequently asked in service-based and product-based company interviews.

SECTION A: SIMPLE PATTERN QUESTIONS

Q1. Right-Angled Star Triangle

```
*  
**  
***  
****  
*****
```

Q2. Inverted Number Pattern

```
12345  
1234  
123  
12  
1
```

Q3. Same Number Pattern

```
1  
22  
333  
4444
```

Q4. Alphabet Increasing Pattern

```
A  
AB  
ABC  
ABCD
```

Q5. Hollow Square Pattern

```
*****  
*     *
```

* *
* *
* * * * *

SECTION B: INTERMEDIATE PATTERN QUESTIONS

Q6. Centered Star Pyramid

```
*  
***  
*****  
******
```

Q7. Inverted Centered Pyramid

```
*****  
***  
**  
*
```

Q8. Diamond Star Pattern

```
*  
***  
*****  
*****  
***  
**  
*
```

Q9. Floyd's Triangle

```
1  
2 3  
4 5 6  
7 8 9 10
```

Q10. Binary Pattern

```
1  
01  
101  
0101  
10101
```

Q11. X Pattern

```
* *  
* *  
*  
* *  
* * *
```

Q12. Hourglass Pattern

```
*****  
***  
*  
***  
*****
```

Q13. Pascal's Triangle

```
1  
1 1  
1 2 1  
1 3 3 1
```

Q14. Palindromic Number Pyramid

```
1  
121  
12321  
1234321
```

Q15. Zig-Zag Star Pattern

```
*      *      *  
*  *  *  *  
*      *
```

SECTION C: ADVANCED & RESET-BASED PATTERN QUESTIONS

Q16. Reset Number Triangle

1
1 2
1 2 3
1 2 3 4

Q17. Reverse Reset Pattern

1 2 3 4
1 2 3
1 2
1

Q18. Continuous + Reset Mixed Pattern

1
2 3
4 5 6
1
2 3
4 5 6

Q19. Row Reset Alphabet Pattern

A
A B
A B C
A B C D

Q20. Column Reset Pattern

1 1 1 1
2 2 2 2
3 3 3 3
4 4 4 4

Q21. Numeric Diamond Pattern

9 8 7 6 5 4 3 2 1
8 7 6 5 4 3 2
7 6 5 4 3
6 5 4
5
4 5 6
3 4 5 6 7
2 3 4 5 6 7 8
1 2 3 4 5 6 7 8 9

Q22. Alphabet Diamond Pattern

I H G F E D C B A
H G F E D C B
G F E D C
F E D
E
D E F
C D E F G
B C D E F G H
A B C D E F G H I

Q23. Concentric Square Pattern

```
4 4 4 4 4 4  
4 3 3 3 3 3 4  
4 3 2 2 2 3 4  
4 3 2 1 2 3 4  
4 3 2 2 2 3 4  
4 3 3 3 3 3 4  
4 4 4 4 4 4 4
```

Q24. Single Loop Pattern

```
*
```

```
**
```

```
***
```

```
****
```

```
*****
```

Q25. Reset-Based Alternating Pattern

```
1  
A B  
1 2 3  
A B C D  
1 2 3 4 5
```