

Output

- 1) What will be output of following c code? [NACTAR- AI(ICT)-2020]

```
int main ()
{
    int i = 0;
    for (i = 0; i < 20; i++)
    {
        switch (i)
        {
            case 0: i += 5;
            case 1: i += 2;
            case 5: i += 5;
            default: i += 4;
            break;
        }
    }
    printf("%d", i);
    return 0;
}
```

$$i = 0$$

Switch(0)

$$i = 0 + 5 = 5$$

$$i = 5 + 2 = 7$$

$$i = 7 + 5 = 12$$

$$i = 12 + 4 = 16$$

$$i = 16 + 1 = 17$$

$$17 < 20 \checkmark$$

Switch(17)

$$i = 17 + 4$$

$$= 21$$

$$i = 21 + 1 = 22$$

$$22 < 20 \times$$

Explanation:

If we don't use break then all case will work. Here, initially the value of $i=0$. Then it check the condition. First, it check case 0 and added 5 with i so the value of i is $i=0+5=5$. Here, we don't use any break statement. So, next case also work and so on.

- 2) What will be output of following c code? [Pally Sanchaya Bank (AP)-2018]

```
#include<stdio.h>
int main() {
    for(;;) {
        printf("%d ", 10);
    }
    return 0;
}
```

infinite times.

- 3) What will be output of following c code? [Pally Sanchaya Bank (AP)-2018]

```
int main()
{
    int i=2, j=2;
    while(i?--i:j++)
    printf("%d", i);
    return 0;
}
```

Output:

Diagram showing the execution of the while loop:

- Initial state: $i=2, j=2$
- Iteration 1: $i=2$ (true), $i--$ to 1, output 1.
- Iteration 2: $i=1$ (false), $j++$ to 3, output 3.
- Iteration 3: $i=3$ (true), $i--$ to 2, output 2.
- Iteration 4: $i=2$ (false), $j++$ to 4, output 4.
- Iteration 5: $i=4$ (true), $i--$ to 3, output 3.
- Iteration 6: $i=3$ (false), $j++$ to 5, output 5.
- Iteration 7: $i=5$ (true), $i--$ to 4, output 4.
- Iteration 8: $i=4$ (false), $j++$ to 6, output 6.
- Iteration 9: $i=6$ (true), $i--$ to 5, output 5.
- Iteration 10: $i=5$ (false), $j++$ to 7, output 7.
- Iteration 11: $i=7$ (true), $i--$ to 6, output 6.
- Iteration 12: $i=6$ (false), $j++$ to 8, output 8.
- Iteration 13: $i=8$ (true), $i--$ to 7, output 7.
- Iteration 14: $i=7$ (false), $j++$ to 9, output 9.
- Iteration 15: $i=9$ (true), $i--$ to 8, output 8.
- Iteration 16: $i=8$ (false), $j++$ to 10, output 10.
- Iteration 17: $i=10$ (true), $i--$ to 9, output 9.
- Iteration 18: $i=9$ (false), $j++$ to 11, output 11.
- Iteration 19: $i=11$ (true), $i--$ to 10, output 10.
- Iteration 20: $i=10$ (false), $j++$ to 12, output 12.
- Iteration 21: $i=12$ (true), $i--$ to 11, output 11.
- Iteration 22: $i=11$ (false), $j++$ to 13, output 13.
- Iteration 23: $i=13$ (true), $i--$ to 12, output 12.
- Iteration 24: $i=12$ (false), $j++$ to 14, output 14.
- Iteration 25: $i=14$ (true), $i--$ to 13, output 13.
- Iteration 26: $i=13$ (false), $j++$ to 15, output 15.
- Iteration 27: $i=15$ (true), $i--$ to 14, output 14.
- Iteration 28: $i=14$ (false), $j++$ to 16, output 16.
- Iteration 29: $i=16$ (true), $i--$ to 15, output 15.
- Iteration 30: $i=15$ (false), $j++$ to 17, output 17.
- Iteration 31: $i=17$ (true), $i--$ to 16, output 16.
- Iteration 32: $i=16$ (false), $j++$ to 18, output 18.
- Iteration 33: $i=18$ (true), $i--$ to 17, output 17.
- Iteration 34: $i=17$ (false), $j++$ to 19, output 19.
- Iteration 35: $i=19$ (true), $i--$ to 18, output 18.
- Iteration 36: $i=18$ (false), $j++$ to 20, output 20.
- Iteration 37: $i=20$ (true), $i--$ to 19, output 19.
- Iteration 38: $i=19$ (false), $j++$ to 21, output 21.
- Iteration 39: $i=21$ (true), $i--$ to 20, output 20.
- Iteration 40: $i=20$ (false), $j++$ to 22, output 22.
- Iteration 41: $i=22$ (true), $i--$ to 21, output 21.
- Iteration 42: $i=21$ (false), $j++$ to 23, output 23.
- Iteration 43: $i=23$ (true), $i--$ to 22, output 22.
- Iteration 44: $i=22$ (false), $j++$ to 24, output 24.
- Iteration 45: $i=24$ (true), $i--$ to 23, output 23.
- Iteration 46: $i=23$ (false), $j++$ to 25, output 25.
- Iteration 47: $i=25$ (true), $i--$ to 24, output 24.
- Iteration 48: $i=24$ (false), $j++$ to 26, output 26.
- Iteration 49: $i=26$ (true), $i--$ to 25, output 25.
- Iteration 50: $i=25$ (false), $j++$ to 27, output 27.
- Iteration 51: $i=27$ (true), $i--$ to 26, output 26.
- Iteration 52: $i=26$ (false), $j++$ to 28, output 28.
- Iteration 53: $i=28$ (true), $i--$ to 27, output 27.
- Iteration 54: $i=27$ (false), $j++$ to 29, output 29.
- Iteration 55: $i=29$ (true), $i--$ to 28, output 28.
- Iteration 56: $i=28$ (false), $j++$ to 30, output 30.
- Iteration 57: $i=30$ (true), $i--$ to 29, output 29.
- Iteration 58: $i=29$ (false), $j++$ to 31, output 31.
- Iteration 59: $i=31$ (true), $i--$ to 30, output 30.
- Iteration 60: $i=30$ (false), $j++$ to 32, output 32.
- Iteration 61: $i=32$ (true), $i--$ to 31, output 31.
- Iteration 62: $i=31$ (false), $j++$ to 33, output 33.
- Iteration 63: $i=33$ (true), $i--$ to 32, output 32.
- Iteration 64: $i=32$ (false), $j++$ to 34, output 34.
- Iteration 65: $i=34$ (true), $i--$ to 33, output 33.
- Iteration 66: $i=33$ (false), $j++$ to 35, output 35.
- Iteration 67: $i=35$ (true), $i--$ to 34, output 34.
- Iteration 68: $i=34$ (false), $j++$ to 36, output 36.
- Iteration 69: $i=36$ (true), $i--$ to 35, output 35.
- Iteration 70: $i=35$ (false), $j++$ to 37, output 37.
- Iteration 71: $i=37$ (true), $i--$ to 36, output 36.
- Iteration 72: $i=36$ (false), $j++$ to 38, output 38.
- Iteration 73: $i=38$ (true), $i--$ to 37, output 37.
- Iteration 74: $i=37$ (false), $j++$ to 39, output 39.
- Iteration 75: $i=39$ (true), $i--$ to 38, output 38.
- Iteration 76: $i=38$ (false), $j++$ to 40, output 40.
- Iteration 77: $i=40$ (true), $i--$ to 39, output 39.
- Iteration 78: $i=39$ (false), $j++$ to 41, output 41.
- Iteration 79: $i=41$ (true), $i--$ to 40, output 40.
- Iteration 80: $i=40$ (false), $j++$ to 42, output 42.
- Iteration 81: $i=42$ (true), $i--$ to 41, output 41.
- Iteration 82: $i=41$ (false), $j++$ to 43, output 43.
- Iteration 83: $i=43$ (true), $i--$ to 42, output 42.
- Iteration 84: $i=42$ (false), $j++$ to 44, output 44.
- Iteration 85: $i=44$ (true), $i--$ to 43, output 43.
- Iteration 86: $i=43$ (false), $j++$ to 45, output 45.
- Iteration 87: $i=45$ (true), $i--$ to 44, output 44.
- Iteration 88: $i=44$ (false), $j++$ to 46, output 46.
- Iteration 89: $i=46$ (true), $i--$ to 45, output 45.
- Iteration 90: $i=45$ (false), $j++$ to 47, output 47.
- Iteration 91: $i=47$ (true), $i--$ to 46, output 46.
- Iteration 92: $i=46$ (false), $j++$ to 48, output 48.
- Iteration 93: $i=48$ (true), $i--$ to 47, output 47.
- Iteration 94: $i=47$ (false), $j++$ to 49, output 49.
- Iteration 95: $i=49$ (true), $i--$ to 48, output 48.
- Iteration 96: $i=48$ (false), $j++$ to 50, output 50.
- Iteration 97: $i=50$ (true), $i--$ to 49, output 49.
- Iteration 98: $i=49$ (false), $j++$ to 51, output 51.
- Iteration 99: $i=51$ (true), $i--$ to 50, output 50.
- Iteration 100: $i=50$ (false), $j++$ to 52, output 52.
- Iteration 101: $i=52$ (true), $i--$ to 51, output 51.
- Iteration 102: $i=51$ (false), $j++$ to 53, output 53.
- Iteration 103: $i=53$ (true), $i--$ to 52, output 52.
- Iteration 104: $i=52$ (false), $j++$ to 54, output 54.
- Iteration 105: $i=54$ (true), $i--$ to 53, output 53.
- Iteration 106: $i=53$ (false), $j++$ to 55, output 55.
- Iteration 107: $i=55$ (true), $i--$ to 54, output 54.
- Iteration 108: $i=54$ (false), $j++$ to 56, output 56.
- Iteration 109: $i=56$ (true), $i--$ to 55, output 55.
- Iteration 110: $i=55$ (false), $j++$ to 57, output 57.
- Iteration 111: $i=57$ (true), $i--$ to 56, output 56.
- Iteration 112: $i=56$ (false), $j++$ to 58, output 58.
- Iteration 113: $i=58$ (true), $i--$ to 57, output 57.
- Iteration 114: $i=57$ (false), $j++$ to 59, output 59.
- Iteration 115: $i=59$ (true), $i--$ to 58, output 58.
- Iteration 116: $i=58$ (false), $j++$ to 60, output 60.
- Iteration 117: $i=60$ (true), $i--$ to 59, output 59.
- Iteration 118: $i=59$ (false), $j++$ to 61, output 61.
- Iteration 119: $i=61$ (true), $i--$ to 60, output 60.
- Iteration 120: $i=60$ (false), $j++$ to 62, output 62.
- Iteration 121: $i=62$ (true), $i--$ to 61, output 61.
- Iteration 122: $i=61$ (false), $j++$ to 63, output 63.
- Iteration 123: $i=63$ (true), $i--$ to 62, output 62.
- Iteration 124: $i=62$ (false), $j++$ to 64, output 64.
- Iteration 125: $i=64$ (true), $i--$ to 63, output 63.
- Iteration 126: $i=63$ (false), $j++$ to 65, output 65.
- Iteration 127: $i=65$ (true), $i--$ to 64, output 64.
- Iteration 128: $i=64$ (false), $j++$ to 66, output 66.
- Iteration 129: $i=66$ (true), $i--$ to 65, output 65.
- Iteration 130: $i=65$ (false), $j++$ to 67, output 67.
- Iteration 131: $i=67$ (true), $i--$ to 66, output 66.
- Iteration 132: $i=66$ (false), $j++$ to 68, output 68.
- Iteration 133: $i=68$ (true), $i--$ to 67, output 67.
- Iteration 134: $i=67$ (false), $j++$ to 69, output 69.
- Iteration 135: $i=69$ (true), $i--$ to 68, output 68.
- Iteration 136: $i=68$ (false), $j++$ to 70, output 70.
- Iteration 137: $i=70$ (true), $i--$ to 69, output 69.
- Iteration 138: $i=69$ (false), $j++$ to 71, output 71.
- Iteration 139: $i=71$ (true), $i--$ to 70, output 70.
- Iteration 140: $i=70$ (false), $j++$ to 72, output 72.
- Iteration 141: $i=72$ (true), $i--$ to 71, output 71.
- Iteration 142: $i=71$ (false), $j++$ to 73, output 73.
- Iteration 143: $i=73$ (true), $i--$ to 72, output 72.
- Iteration 144: $i=72$ (false), $j++$ to 74, output 74.
- Iteration 145: $i=74$ (true), $i--$ to 73, output 73.
- Iteration 146: $i=73$ (false), $j++$ to 75, output 75.
- Iteration 147: $i=75$ (true), $i--$ to 74, output 74.
- Iteration 148: $i=74$ (false), $j++$ to 76, output 76.
- Iteration 149: $i=76$ (true), $i--$ to 75, output 75.
- Iteration 150: $i=75$ (false), $j++$ to 77, output 77.
- Iteration 151: $i=77$ (true), $i--$ to 76, output 76.
- Iteration 152: $i=76$ (false), $j++$ to 78, output 78.
- Iteration 153: $i=78$ (true), $i--$ to 77, output 77.
- Iteration 154: $i=77$ (false), $j++$ to 79, output 79.
- Iteration 155: $i=79$ (true), $i--$ to 78, output 78.
- Iteration 156: $i=78$ (false), $j++$ to 80, output 80.
- Iteration 157: $i=80$ (true), $i--$ to 79, output 79.
- Iteration 158: $i=79$ (false), $j++$ to 81, output 81.
- Iteration 159: $i=81$ (true), $i--$ to 80, output 80.
- Iteration 160: $i=80$ (false), $j++$ to 82, output 82.
- Iteration 161: $i=82$ (true), $i--$ to 81, output 81.
- Iteration 162: $i=81$ (false), $j++$ to 83, output 83.
- Iteration 163: $i=83$ (true), $i--$ to 82, output 82.
- Iteration 164: $i=82$ (false), $j++$ to 84, output 84.
- Iteration 165: $i=84$ (true), $i--$ to 83, output 83.
- Iteration 166: $i=83$ (false), $j++$ to 85, output 85.
- Iteration 167: $i=85$ (true), $i--$ to 84, output 84.
- Iteration 168: $i=84$ (false), $j++$ to 86, output 86.
- Iteration 169: $i=86$ (true), $i--$ to 85, output 85.
- Iteration 170: $i=85$ (false), $j++$ to 87, output 87.
- Iteration 171: $i=87$ (true), $i--$ to 86, output 86.
- Iteration 172: $i=86$ (false), $j++$ to 88, output 88.
- Iteration 173: $i=88$ (true), $i--$ to 87, output 87.
- Iteration 174: $i=87$ (false), $j++$ to 89, output 89.
- Iteration 175: $i=89$ (true), $i--$ to 88, output 88.
- Iteration 176: $i=88$ (false), $j++$ to 90, output 90.
- Iteration 177: $i=90$ (true), $i--$ to 89, output 89.
- Iteration 178: $i=89$ (false), $j++$ to 91, output 91.
- Iteration 179: $i=91$ (true), $i--$ to 90, output 90.
- Iteration 180: $i=90$ (false), $j++$ to 92, output 92.
- Iteration 181: $i=92$ (true), $i--$ to 91, output 91.
- Iteration 182: $i=91$ (false), $j++$ to 93, output 93.
- Iteration 183: $i=93$ (true), $i--$ to 92, output 92.
- Iteration 184: $i=92$ (false), $j++$ to 94, output 94.
- Iteration 185: $i=94$ (true), $i--$ to 93, output 93.
- Iteration 186: $i=93$ (false), $j++$ to 95, output 95.
- Iteration 187: $i=95$ (true), $i--$ to 94, output 94.
- Iteration 188: $i=94$ (false), $j++$ to 96, output 96.
- Iteration 189: $i=96$ (true), $i--$ to 95, output 95.
- Iteration 190: $i=95$ (false), $j++$ to 97, output 97.
- Iteration 191: $i=97$ (true), $i--$ to 96, output 96.
- Iteration 192: $i=96$ (false), $j++$ to 98, output 98.
- Iteration 193: $i=98$ (true), $i--$ to 97, output 97.
- Iteration 194: $i=97$ (false), $j++$ to 99, output 99.
- Iteration 195: $i=99$ (true), $i--$ to 98, output 98.
- Iteration 196: $i=98$ (false), $j++$ to 100, output 100.
- Iteration 197: $i=100$ (true), $i--$ to 99, output 99.
- Iteration 198: $i=99$ (false), $j++$ to 101, output 101.
- Iteration 199: $i=101$ (true), $i--$ to 100, output 100.
- Iteration 200: $i=100$ (false), $j++$ to 102, output 102.
- Iteration 201: $i=102$ (true), $i--$ to 101, output 101.
- Iteration 202: $i=101$ (false), $j++$ to 103, output 103.
- Iteration 203: $i=103$ (true), $i--$ to 102, output 102.
- Iteration 204: $i=102$ (false), $j++$ to 104, output 104.
- Iteration 205: $i=104$ (true), $i--$ to 103, output 103.
- Iteration 206: $i=103$ (false), $j++$ to 105, output 105.
- Iteration 207: $i=105$ (true), $i--$ to 104, output 104.
- Iteration 208: $i=104$ (false), $j++$ to 106, output 106.
- Iteration 209: $i=106$ (true), $i--$ to 105, output 105.
- Iteration 210: $i=105$ (false), $j++$ to 107, output 107.
- Iteration 211: $i=107$ (true), $i--$ to 106, output 106.
- Iteration 212: $i=106$ (false), $j++$ to 108, output 108.
- Iteration 213: $i=108$ (true), $i--$ to 107, output 107.
- Iteration 214: $i=107$ (false), $j++$ to 109, output 109.
- Iteration 215: $i=109$ (true), $i--$ to 108, output 108.
- Iteration 216: $i=108$ (false), $j++$ to 110, output 110.
- Iteration 217: $i=110$ (true), $i--$ to 109, output 109.
- Iteration 218: $i=109$ (false), $j++$ to 111, output 111.
- Iteration 219: $i=111$ (true), $i--$ to 110, output 110.
- Iteration 220: $i=110$ (false), $j++$ to 112, output 112.
- Iteration 221: $i=112$ (true), $i--$ to 111, output 111.
- Iteration 222: $i=111$ (false), $j++$ to 113, output 113.
- Iteration 223: $i=113$ (true), $i--$ to 112, output 112.
- Iteration 224: $i=112$ (false), $j++$ to 114, output 114.
- Iteration 225: $i=114$ (true), $i--$ to 113, output 113.
- Iteration 226: $i=113$ (false), $j++$ to 115, output 115.
- Iteration 227: $i=115$ (true), $i--$ to 114, output 114.
- Iteration 228: $i=114$ (false), $j++$ to 116, output 116.
- Iteration 229: $i=116$ (true), $i--$ to 115, output 115.
- Iteration 230: $i=115$ (false), $j++$ to 117, output 117.
- Iteration 231: $i=117$ (true), $i--$ to 116, output 116.
- Iteration 232: $i=116$ (false), $j++$ to 118, output 118.
- Iteration 233: $i=118$ (true), $i--$ to 117, output 117.
- Iteration 234: $i=117$ (false), $j++$ to 119, output 119.
- Iteration 235: $i=119$ (true), $i--$ to 118, output 118.
- Iteration 236: $i=118$ (false), $j++$ to 120, output 120.
- Iteration 237: $i=120$ (true), $i--$ to 119, output 119.
- Iteration 238: $i=119$ (false), $j++$ to 121, output 121.
- Iteration 239: $i=121$ (true), $i--$ to 120, output 120.
- Iteration 240: $i=120$ (false), $j++$ to 122, output 122.
- Iteration 241: $i=122$ (true), $i--$ to 121, output 121.
- Iteration 242: $i=121$ (false), $j++$ to 123, output 123.
- Iteration 243: $i=123$ (true), $i--$ to 122, output 122.
- Iteration 244: $i=122$ (false), $j++$ to 124, output 124.
- Iteration 245: $i=124$ (true), $i--$ to 123, output 123.
- Iteration 246: $i=123$ (false), $j++$ to 125, output 125.
- Iteration 247: $i=125$ (true), $i--$ to 124, output 124.
- Iteration 248: $i=124$ (false), $j++$ to 126, output 126.
- Iteration 249: $i=126$ (true), $i--$ to 125, output 125.
- Iteration 250: $i=125$ (false), $j++$ to 127, output 127.
- Iteration 251: $i=127$ (true), $i--$ to 126, output 126.
- Iteration 252: $i=126$ (false), $j++$ to 128, output 128.
- Iteration 253: $i=128$ (true), $i--$ to 127, output 127.
- Iteration 254: $i=127$ (false), $j++$ to 129, output 129.
- Iteration 255: $i=129$ (true), $i--$ to 128, output 128.
- Iteration 256: $i=128$ (false), $j++$ to 130, output 130.
- Iteration 257: $i=130$ (true), $i--$ to 129, output 129.
- Iteration 258: $i=129$ (false), $j++$ to 131, output 131.
- Iteration 259: $i=131$ (true), $i--$ to 130, output 130.
- Iteration 260: $i=130$ (false), $j++$ to 132, output 132.
- Iteration 261: $i=132$ (true), $i--$ to 131, output 131.
- Iteration 262: $i=131$ (false), $j++$ to 133, output 133.
- Iteration 263: $i=133$ (true), $i--$ to 132, output 132.
- Iteration 264: $i=132$ (false), $j++$ to 134, output 134.
- Iteration 265: $i=134$ (true), $i--$ to 133, output 133.
- Iteration 266: $i=133$ (false), $j++$ to 135, output 135.
- Iteration 267: $i=135$ (true), $i--$ to 134, output 134.
- Iteration 268: $i=134$ (false), $j++$ to 136, output 136.
- Iteration 269: $i=136$ (true), $i--$ to 135, output 135.
- Iteration 270: $i=135$ (false), $j++$ to 137, output 137.
- Iteration 27

<pre>do{ printf("%d-", i++); } while (i<=0); return 0; }</pre>	be stopped. Ans.: 1-
---	--------------------------------

6) What will be output of following c code? [Pally Sanchaya Bank (P)-2018] [EPB (P)-2018]

<pre>int main(){ char str[120] = "Digital Bangladesh"; int n; n=strlen(str); str[4]='\0'; printf("%s",str); return 0; }</pre>	<pre>int main(){ int i; for(i=0;i<5;i++){ if(i==3) continue; printf("%d\n",i); } return 0; }</pre>
Output: Print 0 index to null	Output: When i=3 then it continue loop not print

7) What is the correct output of the following C program? [Com 6 bank AP-2021]

```
{
int array[] = {6,7,8,9,0,1,2,3,4,5,6};
*p=array+5;
printf("%d\n", p[1]);
}
```

A. 1 B. 2 C. 3 D. Compile Error

8) Consider the following recursive function fun(x, y). What is the value of fun(4, 3)? [SBL and JBL-OFF (IT) - 2019]

<pre>int fun (int x, int y) { if(x==0) return y; return fun (x-1, x+y); }</pre>	a) 9 b) 10 c) 12 d) 13
---	---------------------------------

9) Find output: [JBL-SO(IT)-20]

<pre>int i=4; printf("%d %d", ++i, i++); printf("%d", i++);</pre>	a) 5,4,6 b) 5,7,8 c) 6,4,6 d) 4,5,7
---	--

10) Find output: [DPDC-JAM(ICT)-2020]

<pre>int main () { int i = -3, j = 1, k = 0, m; m = ++i ++j && ++k; printf ("%d %d %d %d", i, j, k, m); return 0; }</pre>	Ans: -2, 1, 0, 1.
--	--------------------------

$m = ++i \parallel ++j \&\& ++k$
 $= -2 \parallel 1 \parallel 0$
 $= 1 \parallel 0 = 1$

$n = 1$
 $\frac{0}{-2, 1, 0, 1}$

11) **Find output:** [BD Competition Commission- Programmer- 2019]

<pre>int main () { char *f[] = { "Ronaldo", "Messi", "Zidan", "Maradona" }; printf ("%s\n", f[1] + 2); printf ("%s", f[2] + 1); return 0; }</pre>	<p>Output:</p> <p>si si zidan</p>
---	---

12) **Find output:** [DESCO-SAE(CSE)-2019]

<pre>#include<stdio.h> #define x 3+2/4*3-2*4+(5-4*3) int main () { int i, y; y = 6 + 3 * 3 / 5; i = x * x + y; printf ("%d", i); return 0; }</pre>	<p>Output:</p>
--	----------------