

Naresh i Technologies, HYDERABAD

1 What is the result of the snippet of code shown below if $x=1? x<<2$

- a) 8
- b) 1
- c) 2
- d) 4

2 The output of the expression is: $\text{bin}(29)$

- a) '0b1011'
- b) '0b11101'
- c) '0b1111'
- d) '0b1101'

3 What is the value of x if: $x>>2=2$

- a) 8
- b) 4
- c) 2
- d) 1

4. What is the result of the expression:

$\text{int}(1011)?$

- a) 1011
- b) 11
- c) 13
- d) 1101

5 To find the decimal value of 1111, that is 15, we can use the function:

- a) $\text{int}(1111,10)$
- b) $\text{int}('1111',10)$
- c) $\text{int}(1111,2)$
- d) $\text{int}('1111',2)$

6 What is the result of the expression if $x=15$ and $y=12$: $x \& y$

- a) b1101
- b) 0b1101
- c) 12
- d) 1101

7. Which of the following expressions results in an error?

- a) $\text{int}(1011)$
- b) $\text{int}('1011',23)$
- c) $\text{int}(1011,2)$
- d) $\text{int}('1011')$

8. Which of the following represents the bitwise XOR operator?

- a) &
- b) ^
- c) |
- d) !

9. What is the value of this expression?

- bin(0x8)
- a) '0bx1000'
- b) 8
- c) 1000
- d) '0b1000'

10. What is the result of the expression: $0x35 | 0x75$

- a) 115
- b) 116
- c) 117
- d) 118

11. It is not possible for the two's complement value to be equal to the original value in any case. State whether this statement is true or false.

- a) True
- b) False

12. The one's complement of 110010101 is:

- a) 001101010
- b) 110010101
- c) 001101011
- d) 110010100

13. Bitwise _____ gives 1 if either of the bits is 1 and 0 when both of the bits are 1.

- a) OR
- b) AND
- c) XOR
- d) NOT

14. The result of the expression shown below is: $4^{\wedge}12$

- a) 2
- b) 4
- c) 8
- d) 12

15. Any odd number on being AND-ed with _____ always gives 1. Hint: Any even number on being AND-ed with this value always gives 0.

- a) 10
- b) 2
- c) 1
- d) 0

16. What is the value of this expression:

$\text{bin}(10-2)+\text{bin}(12^{\wedge}4)$

- a) 0b10000
- b) 0b10001000

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- c) 0b1000b1000
- d) 0b10000b1000

17. Which of the following expressions can be used to multiply a given number 'a' by 4?

- a) a<<2
- b) a<<4
- c) a>>2
- d) a>>4

18. What is the output of the code shown below if a=10 and b =20?

```
a=10  
b=20  
a=a^b  
b=a^b  
a=a^b  
print(a,b)
```

- a) 10 20
- b) 10 10
- c) 20 10
- d) 20 20

19. What is the two's complement of -44?

- a) 1011011
- b) 11010100
- c) 11101011
- d) 10110011

20. What is the value of the expression: ~100?

- a) 101
- b) -101
- c) 100
- d) -100

21. What is the output of the code shown below?

```
l=[1, 0, 2, 0, 'hello', "", []]  
list(filter(bool, l))
```

- a) Error
- b) [1, 0, 2, 0, 'hello', "", []]
- c) [1, 0, 2, 'hello', "", []]
- d) [1, 2, 'hello']

22. What is the output of the code shown below?

```
if (9 < 0) and (0 < -9):  
    print("hello")  
elif (9 > 0) or False:  
    print("good")  
else:  
    print("bad")
```

- a) error
- b) hello
- c) good
- d) bad

23. The output of the line of code shown below is: not(10<20) and not(10>30)

- a) True
- b) False
- c) Error
- d) No output

24. The output of the snippet of code shown below?

```
bool('False')  
bool()
```

- a) True True
- b) False True
- c) False False
- d) True False

25. What is the output of the snippet of code shown below?

```
['hello', 'morning'][bool('')]
```

- a) error
- b) no output
- c) hello
- d) morning