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Homework_ The questions of chepter 2

Class_ first class of ISE

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1. Which of the following are invallid identifiers in Python ?

correct one- a : Total sum

2. A _____ is a sequence of one or more characters used to provide a name for a given programe element .

correct one__ a. identifier

3. Identify the invalid identifier below.

correct one __ a. 2017 discount

4. _____ are not allowed as part of an identifier .

correct one_ a. Spaces

5. Identifiers may contain letters and digit , but can not begin with a _____ .

The correct one _ b; Digit

6. Which is not a reserved keyword in Python ?

The correct one _ a. insert

7. Identify the invalid keyword below .

the correct one _ d. until

8. _____ is an identifier that has predefined meaning .

The correct one _ c. keyword

9. Bitwise _____ operator gives 1 if one of the bit is zero and the other is 1 .

The correct one _ c. xor

10. Guess the output of the following code. $1 > 2$ and $9 > 6$

The correct one _ b. False

11. How many operands are there in the following arithmetic expression ?

$6 * 35 + 8 - 25$

The correct one _ c. 5

12. How many binary operators are there in the following arithmetic expression ?

$-- 6 + 10 / (23 + 56)$

The correct one - c. 3

13. Which operator returns the remainder of operands ?

The correct one - c. %

14. A _____ is a name that is associated with a value.

The correct one _ c. variable

15. Guess the output of the following expression . $\text{float}(22 // 3 + 3 / 3)$

The correct one _ b. 8.333

16. What value does the following expression evaluate to ?

the correct one - I cant do it teacher I think it be should None of these

17. _____ and _____ are two ways to comment in python .

The correct one _ d. Single Line and Multiline comments

18. Single -line comments start with the _____ symbol.

The correct one _ a. `##`

19. Multiline comments can be done by adding _____ on each end of the comment.

The correct one _ a. `"""`(triple quote)

20. Python programs get structured through _____ .

The correct one _ b. Indentation

21. In Python, Indentation is a _____ and not a matter of style.

The correct one _ a. Requirement

22. Which of the following is correct about Python?

The correct one _ d. All of the above

23. Which of the following function is used to read data from the keyboard?

The correct one _ c. input()

24. The one's complement of 60 is given by _____?

The correct one _ b. 61

25. The operators is and is not are _____.

The correct one _ a. Identity Operators

26. In Python an identifier is _____.

c. Case Sensitive

27. Which of the following operator is truncation division operator?

d. //

28. The expression that requires type conversion when evaluated is _____.

The correct one _ a. 4.7*6.3

29. The operator that has the highest precedence is _____.

The correct one _ a. <<and>>

30. The expression that results in an error is _____.

The correct one _ a. int('10.8')

31. Which of the following expression is an example of type conversion?

The correct one _ a. 4.0+float(3)

32. What is the output when the following statement is executed?

The correct one _ b. Output equivalent to print 'new\nline'

33. What is the output when the following statement is executed ?

The correct one _ d. 42

34. What is the output of print (0.1+0.2==0.3)?

The correct one _ b. False

35. Which of the following is not a complex number?

The correct one _ c. 4+5i

The correct one _ d. 12

37. Incorrect Indentation results in _____.

The correct one __ a. indentation Error

38. The function that converts an integer to a string of one character whose ASCII code is same as the integer is _____.

The correct one _ a.chr(x)

T

he Review question .

1. Explain different Operators in Python with example .

Answer:: Python has several types of operators : **.Arithmetic Operators:** +,-,/,%,//,*

Example: `a + b`

. Relational (comparison)

Operators : >,<, ==, !=, >=, <=

Example ; `a > b`

- **Logical Operators** : *and* , *or* , *not*

Example: `a > 3 and b < 5`

- **Bitwise Operators** : *&* , *|* , *^* , *~* ,

Example: `a & b`

- **Assignment Operators** : *=* , *+=* , *-=* , etc

Example: `a += 2`

- **Membership Operators** : *in* , *not in*

Example : `'x' in 'text'`

2. Define a variable. How to assign values to them ?

Answer : A **variable** is name used to store data .

Assignment is done using operator

Example : Python `x = 10` `name = "Ali"`

3. Briefly explain binary left shift and binary right shift operators with examples .

Answer ; • **left shift (<<)** : Shifts bits to the left

Example : `4 << 1` `8`

- **Right Shift (>>)**: Shifts bits to the right .

Example : `8 >> 1` `4`

4. Explain precedence and associativity of operators with examples.

Answer: **Precedence**: Which operator is evaluated first.

Associativity : Direction of evaluation (left-right or right-left).

Example `2 * 3 * 4` Right to left Output: 512

5. Outline different assignment operators with examples.

answer.

`= : x = 5`

`+= : x += 3 (x = x + 3)`

`-= : x -= 2`

`/= : x /= 2`

`%= : x %= 3`

6. *Briefly explain how to read date from the keyboard.*

Answer.

Use `input ()` function.

Example:

Python

```
name = input ("Enter your Name: ")
```

7. *Explain Type conversation in Python with example .*

Answer:

Type conversation is changing one data type to another .

Python

```
x = int ("5")    # string to int
```

```
y = str (10)    # int to string
```

8. Write a short note types in python .

Answer.

Python has several data types :

- **int** : 5
- **float**: 5.2
- **str**: "Hello"
- **bool**: True / False
- **List** : [1, 2, 3]
- **Dict** : { " A " }

9. Write a program to read two integers and perform arithmetic operations on them (addition , subtraction , multiplication and division).

```
print ("Sum :", a + b)

print ("Subtraction :", a - b )

print (" Multiplication :", a * B )

print ( " Division : " a / b if b != 0 else " Underfind ")

print ( " Average :", (a + b ) / 2 )
```

10. Write a program to read the the marks of three subjects and find the average of them.

Answer.

python

```

m1 = float ( input ( "Enter mark 1 : " ))
m2 = float ( input ( "Enter mark 2 : " ))
m3 = float ( input ( "Enter Mark 3 : " ))
avg = ( m1 + m2 + m3 ) / 3
print ( "average mark : ", avg )

```

11. Write a program to convert kilogram into pound.

Answer.

python

```

kg = float ( input ( "Enter weight in kilograms : " ))
Pound = kg * 2.20462
print ( "Weight in pounds : " , Pound )

```

12 . Surface area of a prism can be calculated if the lengths of the three sides are known . Write a program that takes the sides as input (read it as integer) and prints the surface area of the prism (Surface Area = $2ab + 2bc + 2ca$).

Answer.

Python

```

a = int ( input ( "Enter side a : " ))
b = int ( input ( "Enter side b : " ))
c = int ( input ( "Enter side c : " ))
area = 2 * ( a*b + b*c + a*c )
print ( " Surface Area : " , area )

```

13. A plane travels 395,000 meters in 9000 second . Write a program to find the speed of the plane (Speed = Distance / Time).

Answer .

Python

```
distance = 395000 # meters
```

```
time = 9000 # seconds
```

```
speed = distance / time print ("Speed of plane :", speed , "m/s")
```

14. You need to empty out the rectangular swimming pool which is 12 meters long , 7 meters wide and 2 meter depth .You have a pump which can move 17 cubic meter of water in an hour . Write a program to find how long it will take to empty your pool ? (volume = l *w *h, and flow = volume /time)

answer.

```
python
```

```
length = 12
```

```
width = 7
```

```
depth = 2
```

```
pump_rate = 17 # cubic meters /hour
```

```
volume = length * width * depth # m3
```

```
time_to_empty = volume / pump _ rate
```

```
print ("Time to empty pool : ", time _ to_empty, "hours")
```

15. write a programe to convert temperture from centigrade (read it as float value) to fahrenheit .

Answer.

```
Python c = float (input ("Enter temperture in Celsius: "))
```

```
f = (c * 9 /5) + 32
```

```
print ("Temperture in Fahrenhiet :",f )
```

16. Write a program that calculates the number of second in a day .

Python

second = 24 * 60 * 60

Print (" Second in a day : " second)

17. A car start from a stoplight and is traveling with a velocity of 10 m/sec east in 20 sec .write a program to find te acceleration of the car .

Answer.

I cant do it and I didnt indrastand it