

SAMPLE PAPER

General Instruction:

1. Please check this question paper contains 35 questions
2. This question paper contains five sections, Section A to E.
3. Section A, consists of 18 questions (Q1 to Q18) carrying 01 mark each.
4. Section B, consists of 07 questions (Q19 TO Q25) carrying 02 marks each
5. Section C, consists of 05 questions (Q26 TO Q30) carrying 03 marks each.
6. Section D, consists of 03 questions (Q31 TO Q33) carrying 05 marks each.
7. Section E, consists of 02 questions (Q34 TO Q35) carrying 04 marks each

All programming questions are to be answered using Python Language only

SECTION A – 18 MARKS

- Q1.** You don't have to pay for Python and you can view its source code too. It means Python is----- 1
- a) Free and open source b) Freeware
c) Open source d) Shareware
- Q2.** To convert the read value through input() into a floating point number,-----() is used 1
- a) floating b) float
c) int d) integer
- Q3.** Which Python built-in function returns the unique number assigned to an object. 1
- a) identity() b) refnum()
c) id() d) ref()
- Q4.** To give a different separator with print() is ----- argument is used 1
- a) sep b) separator
c) end d) tab
- Q5.** Python programs are types in : 1
- a) Interactive mode b) Script mode
c) A combination of interactive and script mode d) All of these
- Q6.** To increase the value of x five times using augmented assignment operator, the correct expression will be 1
- a) x+=5 b) x=x**5
c) x*=5 d) none of these
- Q7.** Which of the following statements will make a selection construct? 1
- a) if b) for
c) while d) None of these
- Q8.** The lines beginning with a certain character, and which are ignored by a c compiler and not executed, are called----- 1

- a) Operators
b) Operands
c) Functions
d) comments

Q9. Consider the following sequence of statement: 1

a=35
m=a

Following the execution of these statements. Python has created how many objects and how many references?

a) Two integer objects,two references b) One integer object,two references
c) One integer object,one reference d) Two integer objects,one reference

Q10. Python is a/an----- language 1

a) High level b) difficult
c) Procedural. d) None of these

Q11. The operator used to check if both the operands reference the same object memory, is the ____ operator. 1

(a) in (b) is
(c) id (d) ==

Q12. For range(10,5,-2) will yield an inerrable sequence like 1

a) [10,8,6] b) [9,7,5] c) [6,8,10] d) [5,7,9]

Q13. Escape sequences are treated as ----- 1

a) String b) Characters
c) Integers d) None of these

Q14. The else statement cannot be a part of----- statement in python 1

a) If b) def
c) While d) For

Q15. Consider the loop given below: 1

for i in range(10):
 break

How many times will this loop run?

a) 10 b) 0
c) Error d) 9

Q16. Python code can run on a variety of platforms. It means Python is a -- 1

-----language.

a) Graphical b) Independent
c) Cross – platform d) All of these

Q17 and 18 are ASSERTION AND REASONING based questions. Mark the correct choice as

- a) Both A and R are true and R is the correct explanation for A
- b) Both A and R are true and R is not the correct explanation for A
- c) A is True but R is False
- d) A is false but R is True

Q17. Assertion: The flow of control in a program can occur sequentially selectively or iteratively 1

Reasoning: The sequence construct means that the statements will get executed sequentially.

Q18. Assertion: In Python, a variable can hold values of different types at different names 1

Reasoning: A variable's data type once assigned, remains fixed throughout the program

SECTION B – 14 MARKS

Q19. Convert the following hexadecimal numbers to decimal. 2

- a. A6
- b. A13B

Q20. Convert the following hexadecimal numbers to octal numbers. 2

- a) 38AC
- b) 7FD6

Q21. What do you understand by undefined variable in Python? 2

OR

What are tokens in Python? How many types of tokens are allowed in Python? Exemplify your answer.

Q22. What are immutable and mutable types? List immutable and mutable types of python. 2

Q23. Int('a') produces error but following expression having int('a') in it, does not return error. Why? 2

Q24. What are the four elements of a while loop in Python? 2

Q25. How is break statement different from continue? 2

SECTION C – 15 MARKS

Q26. Convert the following binary numbers to decimal : 3

- (a) 1010
- (b) 111010
- (c) 101011111

Q27. Convert the following decimal numbers to binary :

3

- (a) 23
- (b) 100
- (c) 145

Q28. Find out the error(s) in following code fragments:

3

(i) **temperature = 90**
print temperature

(ii) **a = 30**
b = a + b
print (a And b)

(iii) **a, b, c = 2, 8, 9**
print (a, b, c)
c, b, a = a, b, c
print (a; b; c)

(iv)
X = 24
4 = X

OR

What will be output produced by following code?

(a)
a, b, c = 1, 1, 2
d = a + b
e = 1.0
f = 1.0
g = 2.0
h = e + f
print(c = d)
print(c is d)
print(g == h)
print(g is h)

(b). What will be output produced by following code?

```
a = 5 - 4 - 3
b = 3 ** 2 ** 3
print(a)
print(b)
```

Q29. (i)What is following code doing? What would it print for input as 3? 3

```
n = int (input"Enter an integer : ")
if n < 1 :
    print ("invalid value")
else :
    for i in range (1, n + 1) :
        print (i * i)
```

(ii)Rewrite the following code fragments using for loop:

```
num=10
while (num > 0) :
    count += 1
    sum += num
    num -= 2
    if count == 10 :
        print ( sum / float(count))
        break
```

Q30. What do you mean by infinite loop? Give example to support your answer. 3

SECTION D – 15 MARKS

Q31. (i) Write a program to calculate BMI of a person after inputting its weight in kgs and height in meters and then print the Nutritional Status as per the following table: 5 [3+2]

Nutritional Status	WHO criteria BMI cut off
Underweight	Less than 18.5
Normal	18.5-24.9
Overweight	25 – 29.9
Obese	More than equal to 30

(ii) Write a program to display the given pattern:

```
A
A B
A B C
A B C D
A B C D E
```

- Q32.** (i) A store charges ₹120 per item if you buy less than 10 items, If you buy between 10 and 99 items, the cost is ₹100 per item. If you buy 100 or more items, the cost is ₹70 per item. Write a program that asks the user how many items they are buying and prints the total cost. 5
[3+2]
- (ii) Write a short program to generate the nos. from 1 to 10

OR

- (i) Write a program to accept the age of n employees and count the no of persons in the following age group:

a) 26-35 b) 36-45 c) 46-55

- (ii) Write a program to find the area of circle. (**Hints: $area = \pi r^2$**)

- Q33.** Convert the following hexadecimal numbers to binary: 5

- (a) BE
(b) BC9
(c) 9BC8
(d) FACE
(E) CAB

SECTION E – 8 MARKS

- Q34.** (i) Write a program that keep on accepting number from the user until user enters zero. Display the sum and average of all numbers. 4
[2+2]

- (ii) Write a program to find the sum of all even numbers from 10 to 40

- Q35.** (i) Write a program to take two numbers and print if the first number is fully divisible by second number or not. 4
[2+2]

- (ii) Write a program to generate 6 random numbers between 10000 to 999999