

This question paper contains 8+2 printed pages]

Roll No.

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S. No. of Question Paper : 7125

Unique Paper Code : 62347502 J

Name of the Paper : Programming with Python

Name of the Course : B.A. (Programme) Computer
Application DSE-1

Semester : V

Duration : 3 Hours

Maximum Marks : 75

(Write your Roll No. on the top immediately on receipt of this question paper.)

Question No. 1 is compulsory.

Attempt any 5 of Question Nos. 2 to 8.

All parts of a question must be answered together.

Due credit will be given to the structure and documentation
of the code. For every program/function you must
include as comments the following :

Objective :

inputs/input parameters :

outputs/output parameters :

P.T.O.

1. (a) For each of the following, indicate whether it is a valid Python keyword. 2

(i) class

(ii) not

(iii) if

(iv) exec

(b) How does the effect of the following two statements differ ? 2

(i) `a -= a - 3`

(ii) `a = a - 3`

(c) Give the output that will be produced on execution of the following code segment : 2

```
s1 = "learning python is FUN!!"
```

```
s2 = s1.capitalize()
```

```
s3 = s1.title()
```

```
print(s2)
```

```
print(s3)
```

4. (a) Write a python function `searchKey(lst,k)` for searching an item `k` in the list `lst` of `n` integers using binary search. The function should return the index of the item `k`, if `k` is present in the list, otherwise, it should return `-1`. 6

- (b) Translate each of the following mathematical expressions into an equivalent Python expressions : 4

(i) $b (c + d^3) / 3$

(ii) $z(6+3z) + x(5-x)/y$

5. (a) Identify error(s), if any, in the following code segment : 2

```
def test(a, b):
    a[1] = 'T'
    b[1] = 'j'
x = 'this'
y = ['m', 'n', 'o']
test(x, y)
print(x, y)
test(x, y[:])
print(x, y)
```

- (d) Consider a queue `q`. Write a Python function `display()` that displays content of queue `q` if queue is not empty, otherwise, it displays the message "Queue is Empty". 2

- (e) Identify error(s), if any, in the following code segment : 2

```
s1 = "I am a String"
```

```
s1[4] = "not"
```

```
print("String s1 is, "+ S1)
```

- (f) Give the output that will be produced on execution of the following code segment : 3

```
f = 10
```

```
m = 4
```

```
for i in range(f, 0, -1):
```

```
    p = m * i
```

```
    print(p)
```