

MOSHOOD ABIOLA POLYTECHNIC, ABEOKUTA
SCHOOL OF SCIENCE & TECHNOLOGY
COMPUTER SCIENCE DEPARTMENT
1ST SEMESTER 2022/2023 EXAMINATION

COURSE CODE: COM 315

COURSE UNIT: 3

CLASSES WRITING PAPER: HND I COMPUTER SCIENCE (FT & PT)

COURSE TITLE: PYTHON PROGRAMMING LANGUAGE
TIME ALLOWED: 3HRS

SECTION A: ATTEMPT ANY FOUR (4) QUESTIONS

- ✓ 1a. Give five (5) features of Python ✓
- b. State any two (2) frameworks of Python with two (2) examples each. ✓
- c. Describe any three (3) applications of Python ✓

- ✓ 2a. Describe any two (2) Python IDE ✓
- b. State any two (2) Python naming convention rules with appropriate examples
- c. List any ten (10) Python keywords
- d. Write a one line and several lines comment in Python ✓

- ✓ 3a. Write the Python Data types with examples
 - Scalar ✓
 - Sequence ✓
 - Set ✓
 - Number ✓✓

- b. Write a Python function to calculate Factorial of any given number

4a. Describe the Python construct for the following with examples:

- IF-ELSE
- CONTINUE -NEXT
- WHILE-LOOP-ELSE
- NESTED FOR LOOP

b. Write a Python program to determine if a student passes or not given the Pass mark to be 50.

✓ 5a. Differentiate between the following with examples: List, Tuple and Dictionary

b. Given subject = 'Geography'. State the output of the following:

Output

```
>>subject[1] → G
>>subject[-5] → F
>>subject[4:2] → null else rewrite to Subject[2:4] → OG
>>subject[:4] → Geog
```

c. Given names = ['Biolade', 'Sunday', 83, 35.7, 'Mapoly', 'English', '334']. State the output for the following:

- 1ai. Write a SQL statement to find those salesmen with all information who gets the commission within a range of 0.12 and 0.13. (2marks)
- 1aii. Write a SQL statement to find those salesmen with all other information and name started with Any letter 'A' and 'I'. (4marks)
- 1aiii. Write a SQL statement to find those salesmen with all information who come from the city either Abuja or Ikeja. (4marks)
- 1bi. Write a query to insert the following records in the table salesman. (4marks)
- 1bii. Differentiate between: **Drop and Delete, Update and Insert.** (3marks)
- 1biii. Explain the concept of Normalization in database (3marks)

QUESTION TWO

EmpId	F_Name	L_Name	Job_Des	Hiredate	Sales	Deptno
100	ADEBAYO	LEKUTI	HOD	11/17/1991	16000.00	10
101	BASIT	VOGO	TECH 1	05/03/1998	8000.00	30
102	MICHEAL	FEMTOB	ICT INSTR.	06/09/1991	12000.00	10
200	OMOTOLA	TY	SEN. LEC.	04/02/1991	15000.00	20
205	ADESOLA	ADE	CHIEF LEC.	12/07/1996	19000.00	20

Hint: Table Name = Employees

- 2ai. Write a SQL statement to create the above table. (4marks)
- 2aii. Explain the concept of Normalization in database (3marks)
- 2bi. Write a query to show how Total Sales can be computed for the entity above. (3marks)
- 2bii. Write a SQL statement to increase the salary of Employees under the department 10, 20 and 30 according to the company rules that salary will be increased by 25% for the department 10, 15% for department 20 and 10% for the department 30 and the rest of the departments will remain the same. (10marks)