

Reg. No. :

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

**Question Paper Code:R5827**

B.E./B.Tech. DEGREE EXAMINATION, NOV 2025

Fifth Semester

Agricultural Engineering

R21UIT527- PYTHON OBJECT ORIENTED PROGRAMMING

(Regulations R2021)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 2 = 20 Marks)

1. Write the python code to find the factorial of a given number. CO2- App
2. Give the python code to find the minimum among the list of 10 numbers. CO2- App
3. Define tuple and named tuple with syntax and example. CO1- U
4. Create a dictionary items and find the length of the items listed in dictionaries. CO2- App
5. What is class? State its syntax with example CO1- U
6. What is object oriented programming concept in python? CO1- U
7. Suppose B is a subclass of A, to invoke the \_\_init\_\_ method in A from B, what is the line of code you should write? And explain the methodology used. CO2- App
8. Differentiate single inheritance and multiple inheritance with syntax and example. CO1- U
9. What is an exception handling, list out its keywords? CO1- U
10. List Four different ways to perform string formatting in Python. CO1- U

PART – B (5 x 16= 80 Marks)

11. (a) Write a python code by implementing the looping concept for the below scenario and also explain their types in detail with Syntax and examples. To print all the even numbers within a range from 10 to 20. CO2- App (16)

Or

- (b) Get input for Score out of 100.If score is <35= “Poor Student”, if score is greater than 35 but less than 70= “Average Student”, if score is greater than 70= “Good Student”. Print the result. CO2- App (16)
12. (a) Write a python program by implementing Dictionary operations for the below scenario CO2- App (16)  
A university wishes to create and maintain the details of the students such as Rollno, Regno, Name, Dept, Batch, Contact\_no, nativity (Indian/NRI) as key value pairs. Display the complete student details on giving  
(i) Roll no as input.  
(ii) whose nativity belongs to NRI  
(iii) Whose department is CSE?  
Or
- (b) Write the python code for First In First Out Queue by using the input element and expected outputs are listed below, also List out the queue operations with detail diagrammatical explanation CO2- App (16)  
(i) Input elements: 0 1 2 3 4 5  
(ii) Delete any of the elements and print the output.  
(iii) Print the size of the queue.  
(iv) Print the head of the queue
13. (a) Write a python code by implementing the class object concept for the below scenario and also explain them in detail with Syntax and various examples. Create a Class named as “Mobile” with price, brand and version as attributes then initialize 2 objects called Mobile1 and mobile2 CO2- App (16)  
Or
- (b) Write a python code by implementing Decorators concept for the below scenario and explain them in detail with Syntax. Give a string as a user input, write the program to convert the string from upper to lower case and lower to upper case using the following function listed. CO2- App (16)  
a) Passing the functions as objects.  
b) Passing the function as an argument  
C) Returning functions from another function.

14. (a) Explain about inheritance and its types in detail with syntax, example program and with neat diagrammatical explanation. CO1- U (16)
- Or
- (b) Explain about arguments and its types in detail with syntax, example program and with explanation. CO1- U (16)
15. (a) Explain about exceptional handling and its keyword in detail with syntax, example program and with neat explanation CO1- U (16)
- Or
- (b) Explain “string formatting” and “string manipulation” in detail with syntax and example program. CO1- U (16)

