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| **ST. JOSEPH’S COLLEGE (AUTONOMOUS), BANGALORE-27** | | | | | | |
| **B.C.A - III SEMESTER** | | | | | | |
| **SEMESTER EXAMINATION: OCTOBER 2021**  **(Examination conducted in January-March2022)** | | | | | | |
| **CA 3118 - Object Oriented Programming using Python** | | | | | | |
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| **Time- 2 1/2 hrs** | |  | **Max Marks-70** | | |
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| **This paper contains three printed pages and three parts**  **PART A**  **Answer All the Questions. 10 \* 2=20**   1. Explain the following:   a)interactive mode b) modulus operator   1. Present the flow of execution for a while statement. 2. Write an algorithm to find the minimum number in a given list of numbers. 3. State the reasons to divide programs into functions. 4. What is a module? Give an example. 5. Which keyword is used for function in Python language?   a)function b) def c) fun d) define  7. What will be the output of the following Python code?  i = 1  while True:  if i%3 == 0:  break  print(i)    i + = 1  a) 1 2 3 b) error c) 1 2 d) none of the mentioned  8. Python supports the creation of anonymous functions at runtime, using a construct called \_\_\_\_\_\_\_\_\_\_ a) pi b) anonymous c) lambda d) none of the mentioned  9. What are the values of the following Python expressions?  2\*\*(3\*\*2)  (2\*\*3)\*\*2  2\*\*3\*\*2  a) 512, 64, 512 b) 512, 512, 512 c) 64, 512, 64 d) 64, 64, 64  10. Which of the following is not a core data type in Python programming? a) Tuples b) Lists c) Class d) Dictionary  **PART B**  **Answer any FIVE. 5\*6=30**  11. Compare and contrast tuples and lists in Python.  12. Explain the use of slice operator for accessing elements of a tuple.  13. Identify the exception that will be raised by the following code. Justify your answer. i) import math print("\nPower =", math.power(10,2)) ii) x = 10 y = '10' print (x + y) iii) s = "BScCS" for i in range(len(s)): print(s[i+1]) iv) x = int(input(“Enter a Number:”)  print(x)  14. a) Explain how string can be traversed through looping statement? (3+3 marks)  b) Write a Python program to display a given substring in the main string.  15. What is multilevel inheritance? Write a program to implement multilevel inheritance.  16. Explain replace () and match() methods of regular expression with suitable examples. (3+3 marks)  17. Create a module “Area.py” with functions area\_circle(), area\_triangle() and area\_rect().  **PART C**  **Answer any TWO. 2\*10=20**  18. a) Compare and contrast sets with Dictionary. (5 Marks+ 5 Marks)  b) Explain the following operations  i)sum of two tuples  ii)comparison of two tuples  19. How class can be instantiated in Python? Write a Python program to express instances as return values to define a class RECTANGLE with members width, height, corner\_X, corner\_Y and member function: to find centre, area and perimeter of a rectangle.  20. a) What is operator overloading? Write Python code to overload “+” Operator by providing the method \_\_add\_\_. (5 Marks)  b) Explain extracting data using Regular expressions with suitable example. (5 Marks)  +++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++ | | | | | | |
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