



**NAVRACHANA
UNIVERSITY**

a UGC recognized University

School: School of Engineering and Technology
Program/s: BTech - Computer Science and Engineering
Year: 2nd **Semester:** 3rd
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Course Code: CS231 **Course Name:** Object Oriented Programming
Date: 03/12/2021
Time: 08:30 am to 10:00 am

Total Marks: 40
Total Pages: 3

Instructions:

- Write each answer on a new page.
- Use of a calculator is permitted/not permitted.
- * COs=Course Outcome mapping. # BTL=Bloom's Taxonomy Level mapping

Q.No.	Details	Marks	COs*	BTL#
Q.1	Choose the correct options for the following questions. (All are compulsory)	10		
	1. It is necessary to create _____ files from C/C++ program in order to invoke from Python on Windows platform. A. Shared Object (.so) file only. B. Dynamic Linked Library (.dll) file only. C. Both .so and .dll files. D. .sh files only.		CO3	BT1, BT2
	2. Consider the following statements Statement-1: Streams provides abstraction around hardware devices so that programmer can communicate easily with devices. Statement-2: Streams does not allow buffering. A. Statement 1 and 2 are True. B. Only statement 1 is True. C. Only statement 2 is True. D. Statement 1 and 2 are False.		CO3, CO4	BT1, BT2, BT4
	3. If in an open() function if only the file-name is specified then it always opens file in _____ mode. A. Read, Binary B. Write, Binary C. Read, Text D. Write, Text		CO2, CO3	BT1, BT2

	<p>4. _____ is a process where complex datatypes/objects are converted to simplified byte array so as to transfer on a network or persist the data.</p> <p>A. Deserialization B. Unmarshalling C. Buffering D. Serialization</p>	C02, C03	BT1, BT2
	<p>5. The following command is used to run a python program from command prompt. >python hi.py how is your exam ? Through command line argument value of sys.argv[3] will be</p> <p>A. how B. is C. your D. exam</p>	C01	BT1, BT2, BT4
	<p>6. Consider the following statements</p> <p>Statement-1: OOP divides the program to appear more modular than POP.</p> <p>Statement-2: OOP is not much suitable paradigm for large scale enterprise application development.</p> <p>Statement-3: Reusability is the vital factor in OOP paradigm.</p> <p>A. Statements 1, 2 and 3 are True. B. Only statements 1 and 2 are True. C. Only statements 2 and 3 are True. D. Only statements 1 and 3 are True.</p>	C01	BT1, BT2, BT4, BT5
	<p>7. Determine the output of the following program</p> <pre>class One: def __init__(self): print(" Object ",end="") class Two(One): def __init__(self): super().__init__() print(" Oriented ",end="") class Three(One): def __init__(self): super().__init__() print(" Program ",end="") ##### t1=Two() t2=Three() #####</pre> <p>A. Object Oriented Program B. Object Oriented Object Program</p>	C02, C04	BT2 BT3, BT4, BT5

	C. Program Oriented Object D. Program Object Oriented Object			
	8. Below is the python program. Please answer the question below. Line 1: class NegativeError(Exception): Line 2: def __init__(self,data,msg="Value Not Allowed"): Line 3: super().__init__(msg) While line of code registers Error message in PVM. A. Line 1 B. Line 2 C. Line 3		C04	BT2 BT3, BT4, BT5
	9. In the code below Line 1: fw=open("students.txt","w") Line 2: stj=json.dumps(stj) Line 3: fw.write(stj) Line 4: stj=json.load(fr) _____ line constructs JSON to String being in RAM. A. Line 1 B. Line 2 C. Line 3 D. Line 4		C02, C03	BT2 BT3, BT4, BT5
	10. JSON : import json :: Binary : _____ A. import binary B. import pickle C. import pandas D. import os		C02, C03	BT1, BT2
Q.2	Answer the following question in brief (All are compulsory)	5		
	1. What is a Higher-Level Language?		C01	BT1, BT2, BT4
	2. What is a Garbage collection mechanism?		C02, C04	BT1, BT2, BT4
	3. Define the term : Encapsulation with respect to OOP.		C01, C02, C04	BT1, BT2
	4. What is "finally" keyword in Python ?		C02	BT1, BT2
	5. What is the purpose of ctypes package in Python ?		C03	BT1, BT2
Q.3	Answer the following questions in detail (Attempt any 5)	25		
	1. What is programming paradigm ? Discuss its types with example.		C01	BT2, BT3, BT4
	2. Discuss ideal design of a class and its important components giving appropriate example.		C02, C04	BT2, BT3, BT4
	3. What is a file/stream? Discuss types of streams with example?		C03, C04	BT1, BT2,