



Date:08/12/2023 GRADE: XI	ANNUAL EXAMINATION-2023-24 INFORMATICS PRACTICES(065)	Max marks:70 Time: 3 Hour
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General Instructions:

1. This question paper contains five sections, Section A to E.
2. All questions are compulsory.
3. Section A have 18 questions carrying 01 mark each.
4. Section B has 07 Very Short Answer type questions carrying 02 marks each.
5. Section C has 05 Short Answer type questions carrying 03 marks each.
6. Section D has 03 Long Answer type questions carrying 05 marks each.
7. Section E has 02 questions carrying 04 marks each. One internal choice is given in Q35 against part c only.

Qn.No	SECTION A	Marks
1.	State True or False "Python is a cross platform and case sensitive language."	1
2.	Identify the valid variable name. a) stud_no b) stud num c) 1studnum d) stud-num	1
3.	What will be the output of the following python list operation? data =[10,20,30,40,20,60,70] print(count(20)) a) [20] b) 2 c) 3 d) [10,20,30,40,70]	1
4.	Keys of a dictionary must be _____. a) Similar b) Unique c) Odd numbers d) Even numbers	1
5.	Which SQL command used to open a database. a) open b) create c) select d) use	1
6.	To create an empty list we use . a) l =[] b) l="" c) l=[1,2] d) l=()	1
7.	Which of the SQL command is used to add a new column in a table? a) Alter b) Update c) Select d) Drop	1
8.	_____command is used to remove the last item from the list. a)remove() b)pop() c)del d)popitem()	1
9.	_____refers to the ability of machines to perform cognitive task like thinking ,perceiving,learning,problem solving and decision making. a)Artificial Intelligence b) Virtual Reality c)Cloud computing d)NLP	1
10.	What is the value of an expression 100/25 . a) 4 b) 4.0 c) 2.5 d) none of these	1

11.	Which of the following is not a component of SQL? 1 a) DDL b) DML c) DQL d) ADL	1
12.	Which of the following attributes can be considered as choice for a primary key? a) Name b) Street c) Roll_No d) Subject	1
13.	SQL stands for	1
14.	The symbol Asterisk (*) in a select query retrieves_____ (i) All data from the table (ii) Data of primary key only (iii) NULL data (iv) None of the mentioned	1
15.	The SQL statements ends with a) , b) : c) ; d) "	1
16.	Shiv wants to see the table structure in MySQL. Select an appropriate command to help him. a) use b) show c) desc d) display	1
Q17 and 18 are ASSERTION AND REASONING based questions. Mark the correct choice as (a) Both A and R are true and R is the correct explanation for A (b) Both A and R are true and R is not the correct explanation for A (c) A is True but R is False (d) A is false but R is True		
17.	Assertion (A): Python is a case sensitive language . Reasoning (R): In python the errors only show up at run time.	1
18.	Assertion (A) : In a relation,a primary key is one of the candidate keys. Reason (R) : An Alternate key is same as primary key.	1
SECTION B		
19.	Rewrite the following code in Python after removing all syntax error(s). Underline each correction done in the code. Num = 20 for i in range(1,Num,3) if i%2==0: print(i*2) Else print(i*3)	2
20.	a) What will be the output of the following string operation? list=['H','E','L','L','O','@','P','Y','T','H','O','N'] print(list[2:10:2]) OR b) Write the output of the following code. data = [1,2,4,5] for x in data: print(x)	2

21.	<p>Answer the following questions based on the given table:</p> <p style="text-align: center;">Table: student</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Admno</th> <th>Name</th> <th>Subject</th> <th>Sex</th> <th>Average</th> </tr> </thead> <tbody> <tr> <td>1001</td> <td>Amit</td> <td>Math</td> <td>M</td> <td>85.5</td> </tr> <tr> <td>1002</td> <td>Susan</td> <td>English</td> <td>F</td> <td>90</td> </tr> </tbody> </table> <p>i. Identify the primary key in the above table? ii. Display all items from the table. iii. What is the degree of the above table? iv. What is the cardinality of the above table?</p>	Admno	Name	Subject	Sex	Average	1001	Amit	Math	M	85.5	1002	Susan	English	F	90	2
Admno	Name	Subject	Sex	Average													
1001	Amit	Math	M	85.5													
1002	Susan	English	F	90													
22.	What are the features of python programming.	2															
23.	a) Define Artificial Intelligence b) Define BigData	2															
24.	a) Write a python program to print the largest among two numbers. <p style="text-align: center;">OR</p> b) Write a python program to read a list l=[10,20,30,40] ,and add element 50 into the list.	2															
25.	Identify the DDL and DML commands . INSERT , UPDATE, CREATE , ALTER, DROP , DELETE	2															
SECTION C																	
26.	What is meant by primary key and candidate key, Explain with an example.	3															
27.	a) What are tokens? With the help of a python program, explain the tokens. <p style="text-align: center;">OR</p> b) What are mutable and immutable data types? Give suitable examples in Python.	3															
28.	a) What is a dictionary? Write a statement in Python to declare a dictionary named month whose keys are Jan, Feb, Mar and values are 31, 28, 30 respectively. b) find output : <pre> x = 3 if x == 0: print ("Am I learning python?", end = ' ') elif x == 3: print("Or learning python?", end = ' ') else : print ("Or learning python 4 cbse?") print("yes python is Free software") </pre>	3															

29.	<p>Observe the following table and answer the following questions.</p> <p style="text-align: center;">Table : Stock</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Item_code</th> <th>Item</th> <th>Quantity</th> <th>Rate</th> </tr> </thead> <tbody> <tr> <td>10</td> <td>Gel Pen Classic</td> <td>1150</td> <td>25</td> </tr> <tr> <td>11</td> <td>Sharpener</td> <td>1500</td> <td>10</td> </tr> <tr> <td>12</td> <td>Ball Pen 0.5</td> <td>1600</td> <td>12</td> </tr> <tr> <td>13</td> <td>Eraser</td> <td>1600</td> <td>5</td> </tr> <tr> <td>15</td> <td>Ball Peen 0.25</td> <td>800</td> <td>20</td> </tr> </tbody> </table> <p>i) Write SQL commands to insert a record in the stock table with the values: (16,'Pencil HB',1200,8)</p> <p>ii) Write the output of the following SQL query. Select item from stock where item_code=13;</p> <p>iii) Write the query for displaying the details of item Eraser.</p>	Item_code	Item	Quantity	Rate	10	Gel Pen Classic	1150	25	11	Sharpener	1500	10	12	Ball Pen 0.5	1600	12	13	Eraser	1600	5	15	Ball Peen 0.25	800	20	3
Item_code	Item	Quantity	Rate																							
10	Gel Pen Classic	1150	25																							
11	Sharpener	1500	10																							
12	Ball Pen 0.5	1600	12																							
13	Eraser	1600	5																							
15	Ball Peen 0.25	800	20																							

30.	<p>If <code>x=['L','a','n','g','u','a','g','e']</code>.</p> <p><code>y=['l','s']</code></p> <p>Find</p> <p>a) <code>print(x[1:6:2])</code> b) <code>print(x[-3:])</code> c) <code>print(x[: 1 :-3])</code></p> <p>d) <code>print(x+y)</code> e) <code>print(y*2)</code> f) <code>print(x)</code></p>	3
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SECTION D

31.	<p>Your school management has Decided to organize cricket matches between students of class 11 and 12 .All the students are divided into four teams- Team Rockstars , Team BigGamers, Team Magnet and Team Current. During the summervacations, various matches are to be held between these teams. Help your sports teacher to do the following:</p> <p>a) Create a database “sports” and open it for creating table.</p> <p>b) Create a table “TEAM” with the following considerations:</p> <p>i) It should have a column TeamID for storing an intiger value between 1and 9, which refers to unique identification of a team.</p> <p>ii) Each TeamID should have its associated name(TeamName) which shouldbe a string of length not less than 10 characters.</p> <p>iii)Give the statement to make TeamID as the primary key.</p> <p>c)Show the structure of the table TEAM using SQL command.</p> <p>d) As per the preferences of the students,four teams were formed as given below. Insert these four rows in TEAM table.</p> <p>Row 1: (1 , Team Rockstars)</p> <p>Row 2: (2 , Team BigGamers)</p> <p>Row 3: (3 , Team Magnet)</p> <p>Row 4: (4 , Team Current)</p> <p>e) Display the table TEAM.</p>	5
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32. Answer the following questions based on the given table: write SQL query for the question i to iii and find output for the given SQL query from iv and v.

5

Table : **Student**

rollno	name	stipend	stream	mark	grade	class
1	Anu	400.00	Medical	78.5	A	11A
2	Manu	350.00	Commerce	90	A1	12A
3	Jinu	300.00	Commerce	88.9	A1	12B
4	Dinu	450.00	Humanities	56.8	D	12C
5	Vinu	250.00	Nonmedical	68.9	B	11A
6	Sunu	450.00	Commerce	67.9	B	11A

- i) Select all the commerce students from table **Student**
- ii) List the names of those students who are in class 12A
- iii) Insert one more record(7,Renu,200.00,Medical,76.9,C,12C) into the table student.
- iv) Select name from student where mark>80;
- v) Select * from student where rollno=6;

33. i. What is the output of the following code snippet?

```
x = [10,20,30,40]
for i in x:
    if i%2==0:
        print(i)
```

- ii. a=2
b=3
a,b=b+5,b-1
print(a,b)
- iii. a=[1,2,3]
print(a*3)

5

SECTION E

34. Consider the following dictionary StateCapital:
stateCapital={"Assam": "Guwahati", "Bihar": "Patna", "Maharashtra": "Mumbai", "Rajasthan": "Jaipur"}

Find the output of the following statements:

- a) print(stateCapital.get("Bihar"))
- b) print(stateCapital.keys())
- c) print(len(stateCapital))
- d) del stateCapital["Assam"]
print(stateCapital)

4

35. a) Consider the table GRADUATE and write SQL query for the question I to ii and find output for the given SQL query from iii to v.

Table : **GRADUATE**

SNAME	STIPEND	STREAM	AVGMRK	GRADE	CLASS
Karan	400	Medical	78	B	12A
Divakar	500	Comm	89	A	11C
Mohan	800	Comm	56	D	12B
Aman	200	Science	99	A	12C
Kewat	700	Humani	77	C	12A
Raghav	300	Science	90	A	11A
Vikas	600	Medical	84	B	11B

- b. Display the details of all students who have obtained grade A.
- ii) Display the details of students who have opted science with average mark more than 80.
- iii) `SELECT * FROM GRADUATE WHERE STREAM="SCIENCE" ;`
- iv) `SELECT GRADE FROM GRADUATE ;`
- v) `SELECT STREAM, AVGMARK FROM GRADUATE WHERE AVGMARK > 90;`

OR

- b) Explain computer system organization with diagram.

*****END*****