

PT4/ANNUAL EXAMINATION, 2022-23

INFORMATICS PRACTICES

Time - 3 hrs.

Class – XI (Set-A)

M.M. – 70

Name of the student _____ Section _____ Date - 09.02.2023 (Thursday)

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.
8. All programming questions are to be answered using Python Language only.

SECTION - A

- Q 1. Component of CPU which is responsible for comparing the contents of two pieces of data is: 1
(a) ALU (b) CU (c) memory (d) register
- Q 2. Which of the following is available without any payment? 1
(a) OSS (b) Proprietary software (c) Freeware (d) None of these
- Q 3. Word processor and Desktop publishing program are the examples of: 1
(a) hardware (b) software (c) CPU (d) None of these
- Q 4. A disk defragmenter is an example of: 1
(a) Application Software (b) System Software
(c) Utility program (d) None of these
- Q 5. Python can run on a variety of platforms, it means Python is a _____ language. 1
(a) Graphical (b) Cross-platform (c) independent (d) All of these
- Q 6. Which of the following is not a Python IDE? 1
(a) IDLE (b) Spyder (c) Jupyter Notes (d) Sublime Text
- Q 7. What will be the output of this code in python language? 1
x=125
y=13
x//y
print(x)
(a) 125/13 (b) 10 (c) 9 (d) 9.62
- Q 8. Consider the following code and predict the output if the user enters 1 for a and 1 for b. 1
a=int(input("Enter an integer: "))
b=int(input("Enter an integer: "))
if a<=0:

```

    b=b+1
else:
    a=a+1
if a>0 and b>0:
    print("W")
elif a>0:
    print("X")
if b>0:
    print("Y")
else:
    print("Z")

```

(a) W and X (b) W and Y (c) X and Y (d) X and Z

Q 9. What gets printed? 1

```

names = ['Hasan','Balwant','Sean','Dia']
print(names[-1][-1])

```

(a) a (b) n (c) Hasan (d) Dia

Q 10 What is printed by the following statements? 1

```

D1={"cat":12, "dog":6, "elephant":23,"bear":20}
print(23 in D1)

```

(a) True (b) False (c) Error (d) None

Q 11 An attribute in a relation is a foreign key if it is the ____ key in any other relation. 1

(a) Candidate (b) Primary (c) Super (d) Sub

Q 12 Consider the table with structure as: 1

Student(ID, name, dept, tot_cred)

In the above table, which attribute will form the primary key?

(a) Name (b) Dept (c) tot_cred (d) ID

Q 13 Which of the following keywords will you use in the following query to display the unique values of the column dept_name? 1

```

SELECT _____ DEPT_NAME FROM COMPANY;

```

(a) All (b) From (c) Distinct (d) Name

Q 14 The _____ clause of SELECT query allows us to select only those rows in the result that satisfy a specified condition. 1

(a) Where (b) From (c) having (d) like

Q 15 The data types CHAR(n) and VARCHAR(n) are used to create _____, and _____ types of string / text fields in a database. 1

(a) Fixed, equal (b) Equal, variable (c) Fixed, variable (d) Variable, equal

Q 16 Which of the following queries contains an error? 1

(a) Select * from empl where emno=8725;
(b) Select empno from empl where empno=8723;

(c) Select empno from empl;

(d) Select empno where empno=8822 and ename='SMITH';

Q 17 _____ is an artificially intelligent technology that helps computers, understand, interpret and manipulate human language. 1

(a) NLP (b) AR (c) VR (d) ML

Q 18 Intelligent sensors that can convert and process quantities into a digital data are _____ sensors. 1

(a) Cloud (b) AI (c) Grid (d) Smart

SECTION - B

Q 19 Write one advantage and one disadvantage of Open Source Software over Proprietary software. 2

Q 20 Explain system software and its categories. 2

Q 21 What is access time of a storage device? Name a storage device with faster access times. 2

Q 22 What do you mean by Syntax errors and Semantics errors? 2

Q 23 Give python code to accept any string and print its characters in separate lines in reverse order i.e. last character first and so on. Don't use list to store the string and pre defined methods reverse, reversed and sort. 2

Q 24 What is data inconsistency? How is it related to data redundancy? 2

Q 25 What is data isolation? Give an example. 2

SECTION - C

Q 26 Give python code to display the pattern: 3

```
*
**
***
****
*****
```

Q 27 Give python code to accept list of numbers in list format and calculate mean without using the sum function. 3

Q 28 What is the difference between DELETE FROM and DROP TABLE command? 3

Q 29 What is default value in MySql? How do you set default value to a field? Give an example. 3

OR

How is FOREIGN key command different from Primary Key command?

Q 30 Explain the three types of cloud services. 3

OR

Explain any three characteristics of Big Data.

SECTION - D

Q 31 Give python code to display all the palindrome numbers from 1 to 1000. 5

OR

Give python code to display all the Armstrong numbers from 1 to 1000.

- Q 32 Write a program to create a dictionary to store names of states and their capitals. Accept a state's name and display its capital. Display error message if the state's name does not exist in the dictionary. 5

OR

Write a program to create a dictionary that stores roll numbers and marks. Accept a roll number and delete it from the dictionary. Display error message if the roll number does not exist in the dictionary.

- Q 33 Using SQL statements in MySQL, give queries to: 5

(i) create the following table:

Campus : (campusID, CampusName, Street, City, State, pin, phone, campusDiscount)

(Underlined column depict primary key)

(ii) Add a field emailID to the table Campus.

(iii) Delete the field campusDiscount.

(iv) Increase the size of city to 25.

SECTION - E

- Q 34 Give python code to search for an element in a list of numbers entered by the user. Display all the index numbers of the element to be searched. Proper message must be displayed if the element is not found. 4

Ex:

Lst = 1, 5, 6, 2, 34, 22, 45, 11, 6 (to be accepted from the user)

Enter the element to be searched: 6 (to be entered by the user)

Output:

Index numbers: 2, 8

OR

Give python code to check if the given year is leap year.

- Q 35 Based on the table Doctor, give mysql queries: 4

ID	DOCName	Department	DOJ	Gender	Salary
1	Amit Kumar	Orthopaedics	1993-02-12	M	5000
2	Anita Hans	Paediatrics	1998-10-16	F	30000
3	SunitaMaini	Gynaecology	1991-08-23	F	40000
4	Joe Thomas	Surgery	1994-10-20	M	55000
5	Gurpreet Kaur	Paediatrics	1999-11-24	F	52000
6	Anandini Burman	Oncology	1994-03-16	F	31000
7	Siddharth Dang	Surgery	1995-09-08	M	47000
8	Rama Mukherjee	Oncology	2000-06-27	F	54500

(i) Display all the records with DOJ in the year 1999.

(ii) Display annual salary with the names starting with A.

(iii) Display all the details for the departments Paediatrics and Oncology.

(iv) Display all the details with the salaries in the range 30000 to 50000 (both inclusive).

(v) Display all the details with DOCName having the alphabet 't' anywhere in the name.

