Annual Examination (2022-23)

Class : XI	**Subject :Informatics Practices**	**Marks : 70**
Date :	**Set - A**	**Duration:3 hrs.**

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

Section – A

1. What is the name of the component that used to both read and writes data?

   (a) ROM   (b) RAM   (c) Hard drive   (d) Cache Memeory

2. Operating system is an example of _____.

   (a) Application software   (b) System software
   (c) Utility program   (d) None of these

3. Which units in computer are capabale of performimg arithmetic &Logical operations?

   (a) Memory   (b) ALU   (c) Control Unit   (d) None of these

4. How many bytes are in 1 Kilobyte?

   (a) 8 Bytes   (b) 128 Bytes   (c) 1024 Bytes   (d) 256 Bytes

5. Python code can run on a variety of platforms, it means Python is a _____ language.

   (a) Graphical   (b) Cross platform   (c) independent   (d) All of these

6. Which one of the following is the correct extension of the Python file?

   (a) .py   (b) .python   (c) .p   (d) None of these

7. In Python, a variable may be assigned a value of one type, and then later assigned a value of a different type. This will yield _____.

   (a) Warning   (b) Error   (c) None   (d) No Error

8. In for a in _____ : , the blank can be filled with

   (a) An iterable sequence   (b) A range() function
   (c) Both (a) and (b)   (d) None of these

9. Which of the following will always return a list?

   (a) max( )   (b) min( )   (c) sort( )   (d) sorted( )

10. Which of the following will raise an error if the given key is not found in the dictionary?

    (a) del statement   (b) pop( )   (c) getitem( )   (d) All of these

11. Out of these, which of the following is not an advantage of SQL?

(a) Easy to use   (b) portable   (c) slow speed   (d) No coding required

12. Which property of a relation is used to represent number of rows?

(a) Key   (b) Attribute   (c) Degree   (d) Cardinality

13. Which is not the example of Robotics?

(a) Sophia   (b) Drone   (c) Media player   (d) Welding Robot

14. The full of DML is………………

(a) Distributed Meta Language   (b) Data Manipulation Language

(c) Definition Maintenance Language (d) None of these

15. NOT NULL ensures that

(a) Column cannot have blank value   (b) Column will not accept any value

(c) Column has a fixed value   (d) Column has a unique value

16. To view the structure of the table:

(a) SELECT   (b) DESC   (c) DESCRIBE   (d) Both (a) and (b)

Q17 and Q 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 of A.

(b) Both A and R are true and R is the not correct explanation of A.

(c) A is true but R is false.

(d) A is false but R is true.

17. Assertion (A): ORDER BY clause is used to sort the records.
   Reason (R): For sorting keywords ASC and DESC are used.

18. Assertion (A): Augmented reality is a mix of the real world and virtual world.
   Reason (R): Augmented reality includes our existing reality- only with new elements, hints, graphics or characters.

Section –B

19. What are RAM and ROM? How are they alike? How are they different?

20. What are Literals in Python? How many Literals are allowed in Python?

OR

What is the error in following Python program with one statement?

print("My name is : ", name)

suggest a solution.

21. Explain DBMS. Write any 2 advantages of DBMS.

22. What are views? How are they useful?

23. What is SQL? What are different categories of commands available in SQL?

OR

What is MySQL? What are its functions and features?

24. Write command to create table Employee with the following structure:

Name of Column	ID	First_Name	Last_Name	User_ID	Salary
Type	Number(4)	Varchar(30)	Varchar(30)	Varchar(10)	Number(9,2)

Ensure the following specification in created table:
- ID should be declared as Primary Key
- User_ID should be unique
- Salary Must be greater than 5000
- First_Name and Lst_Name must not remain Blank

25. State the difference between with suitable examples: degree and cardinality

Section –C

26. Consider the "Sales" table in mysql:

Ecode	Ename	Address	dojoin	Amount	Area
100	Amit	Delhi	2017/09/29	5000.90	East
101	Sushant	Gurgaon	2018/01/01	7000.75	East
102	Priya	Noida	2018/04/25	3450.45	West
103	Mohit	Delhi	2018/11/03	6000.50	North
104	Priyanshi	Delhi	2019/12/15	8000.62	North

a) To display the employee name and amount for east area.

b) Which of the following command(s) will display all sales whose date of joining is after 31st March 2018.

    i. Select * from Sales where dojoin>="31-03-2018";
    ii. Select * from Sales where dojoin>="2018-03-31";
    iii. Select * from Sales where dojoin>"2018-03-31";
    iv. Select * from Sales where dojoin>"2018/03/31";

c) Write a sql query to display the name of the oldest employee first then 2nd oldest and so on.

OR

Write SQL commands for the following:

Table : Teacher

TID	Tname	Salary	Department	Designation
1	Amit	35000	Maths	TGT
2	Sumit	32000	SS	TGT
3	Naina	40000	IT	PGT

1. Write degree and cardinality for the table 'Teacher'.
2. Increase the salary of Maths department by 2000 Rs.
3. Change the data type for designation to varchar(4).

27. What is cloud computing? What are different types of cloud services available? Explain.

28. Explain the range() function with its parameters and example.

OR

Write python program to read one number from user and find its factorial.

29. What is foreign key? How do you define a foreign key in your table using example?

30. Match the following clauses with their respective functions.

ALTER	Insert the values in a table
UPDATE	Restrictions on columns
DELETE	Table definition
INSERT INTO	Change the name of a column
CONSTRAINTS	Update existing information in a table
DESC	Delete an existing row from a table
CREATE	Create a database

Section – D

31. Given a list l=[13,14,15,112,125.7,[12,11,10,15],188], answer the following questions:

a) Write code to print [14,112,[12,11,10,15]]

b) Write code to print [13,15,125.7,188]

c) Write code to print [14,125.7]

d) Write code to print [12,11,10,15]

e) Write code to print [188,125.7,15,13]

OR

Write a program to input n number of list and insert those numbers in another list which are palindrome numbers. Print both lists.

32. Write a program to create a dictionary with eid, name and salary of n no. of employees and display names of employees who have got more than 25000 salary.

OR

Consider the following dictionary:

d={1:'One',3:'Three',5,'Five',7:'Seven',9:'Nine'}

Perform the below mentioned operations in the dictionary:

i) Write command traverse a dictionary and print key value in this manner

      1 – One

      3 – Three

      5 – Five

      7 – Seven

      9 - Nine

ii) Write command to print only values of dictionary.

iii) Write command to print only the values which doesn't contain 'n'

iv) Write command to print the corresponding value to the key 5.

v) Write command to delete the second last element of dictionary.

33. Consider the table Hospital given below.

Hospital

No	Name	Age	DEPARTMENT	DateOfAdm	Charges	Sex
1	Sandeep	64	Surgery	23/02/2008	300	M
2	Ravina	24	Orthopedic	20/01/2008	200	F
3	Karan	45	Orthopedic	10/02/2008	200	M
4	Tarun	12	Surgery	01/01/2008	300	F
5	Zubin	36	ENT	12/01/2008	250	M
6	Ketaki	16	ENT	12/02/2008	300	F
7	Ankita	29	Cardiology	20/02/2008	800	F
8	Zareen	45	Gynecology	22/02/2008	Null	F
9	Kush	19	Cardiology	13/01/2008	800	M
10	Shailya	31	Medicine	19/02/2008	400	F

Write commands in SQL for (1) to (4).

1. To show all information about the patients of cardiology department.
2. To list the names of female patients who are in orthopaedic department.
3. To count the number of patients with Age > 30.
4. Delete the records of all female patients in Surgery department.

Find out the output for SQL commands (5) to (6).

5. SELECT COUNT(DISTINCT Department) FROM HOSPITAL ;
6. SELECT MAX(Age) FROM HOSPITAL WHERE SEX='M';

OR

A Departmental store 'Iconic' is planning to automate its system so that they can store all the records on computer. They contacted a Software Company to make the software for the same. The company suggested that there is need of a front end and back-end software. The major challenge was to keep the record of all the items available in the store. To overcome the problem, the software company has shown the glimpses of the database and table required to resolve their problem:

Database Name: Iconic
Table Name: Garment
Attributes of the table:
Gcode – Numeric, Gname – Character 25, Size – Character 5,
Colour – Character 10, Price – Numeric

Consider the following records in 'Garment' table and answer the given questions:

Table: GARMENT

GCODE	GNAME	SIZE	COLOUR	PRICE
111	Tshirt	XL	Red	1400.00
112	Jeans	L	Blue	1600.00
113	Skirt	M	Black	1100.00
114	Jacket	XL	Blue	4000.00
115	Trousers	L	Brown	1500.00
116	LadiesTop	L	Pink	1200.00

1. Write command to database and use the database.   (1)
2. Write command to create table Garment with given specifications.   (2)
3. Write a command to print all details of garment whose price >1800.   (1)
4. Write a command to print only gname which starts with 'T' letter.   (1)

Section – E

34. TechWorld company is planning to have video conference with its associates across several nations. In its video conferencing area, there are hardware equipments required for the same. List hardware equipments and purpose of each devices.

35. Carefully go through the code given below and answer the questions based on it.

```
D={ }
n=int(input("Enter number of students:"))
for _____ in _____ (n):          #line1
    name=input("Enter Name:")
    marks=int(input("Enter marks:"))
    D[ _____ ] = _____          #line2

print("Name\t\tMarks")
print("--"*15)
for key, value in D._____( ):     #line3
    print(_____, "\t", _____)        #line4
```

1. Choose the correction option from the following to fill the blanks in line1.
A. i , range   B. range , i   C. i, input   D. input , i

2. Choose the correction option from the following to fill the blanks in line2 where name will be key and marks will be value for dictionary D.
A. name , mark   B. mark , name   C. name , Marks   D. name , marks

3. Which of the following functions will be used in line 3?
A. get( )   B. values( )   C. keys( )   D. items( )

4. Choose the correction option from the following to fill the blanks in line4.
A. value, key   B. value, value   C. key , key   D. key , value