ST. MARGARET SR. SEC. SCHOOL
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SAMPLE PAPER 2023-24
SUBJECT: INFORMATIC S PRACTICES (083)
CLASS: XI

Time: 3Hrs   **M.M: 70**

General Instructions:
- Please check this question paper contains 35 questions.
- The paper is divided into 5 Sections- A, B, C, D and E.
- Section A, consists of 18 questions (1 to 18). Each question carries 1 Mark.
- Section B, consists of 7 questions (19 to 25). Each question carries 2 Marks.
- Section C, consists of 5 questions (26 to 30). Each question carries 3 Marks.
- Section D, consists of 2 questions (31 to 32). Each question carries 4 Marks.
- Section E, consists of 3 questions (33 to 35). Each question carries 5 Marks.

Section –A

1 A CPU can be placed on one or more microchips called _____

   a) Transistors   c) Registers

   b) Integrated Circuits (ICs)   d) Vacuum Tubes

2 Which of the following is an input device?

   a) Monitor   c) Hard Disk

   b) Printer   d) Joy Stick

3 The first binary programmable computer was-

   a) ENIAC   c) MAC

   b) UNIVAC   d) EDVAC

4 IBM introduced the first PC in for the home user in

   a) 1980   c) 1981

   b) 1982   d) 1979

5 A program refers to

a) set of Commands executed by Computer   c) runs the entire Operating System

b) software which runs in Operating System   d) utility to provide basic function

6 Python was developed by

   a) Bill Gates   c) Guido Van Rossum

   b) Monty   d) Dennis Ritchie

7 Which of the following is invalid identifier?

   a) Abc123   c) abc123

   b) 123abc   d) A1b2c3

8 If step value is not specified for range() function, the default value of step is

a) 0

c) -1

b) 1

d) None

9 Consider the given list: L=['Delhi','Mumbai','Kolkata','Chennai'], What L[3:2] returns?

a) Empty List

c) ['Chennai','Kolkata']

b) ['Chennai']

d) ['Kolkata','Chennai']

10 Consider the given dictionary?

d={'Ahmedabad':'Gujarat','Mumbai':'Maharasthra','Indore':'Madhya Pradesh'}

What will be the output of print(d.get('Indore'))

a) Error

c) 2

b) Madhya Pradesh

d) Indore

11 _____ are used to ensure accuracy and reliability of data in database.

a) Database Schema

c) Database Constraint

b) Database Instance

d) Database Dictionary

12 The design of data is known as

a) Database Schema

c) Data Dictionary

b) Data Constraint

d) Database Instance

13 _____ can be made to get data from one table or more tables.

a) Forms   b) Reports   c) Tables   d) Query

14 Which of the following datatype specifies text values with the length ranging from 0 to 255?

a) char

c) date

b) varchar

d) integer

15 Which of the following is not a characteristics of big data?

a) Volume

c) Variety

b) Velocity

d) Variable

16 _____ is a network of devices that have embedded hardware and software to communicate with other devices on the same network:

a) Social Network

c) Internet

b) Web

d) IoT

Q17 and Q18 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):** A database constraint can be added or removed any time from database tables.

   Reasoning(R): Alter table command is used to change the structure of table.

18 **Assertion(A):** SQL has efficient mechanisms to retrieve data stored in multiple tables in a MySQL database.

   Reasoning(R): The SQL statement CREATE is used to retrieve data from the tables in a database and is also called query statement.

Section – B

19 Meet is preparing for an interview for the post of Software Developer. He has given the task to identify the category of software to accomplish the given task and two example of each. Help him to fulfil his need.

   a) Perform basic calculations on data

   b) Fulfil the need of an individual and designed as per their requirements

20 Write a program to accept points in CCA activities, Projects and Discipline. Find the average.

OR

   Identify python data type of the given variables and values:

   i. a='hello'   iii. found=True

   ii. marks=80.75   iv. l=[3,7,8,2]

21 Harmin joined a school as front office executive. The school management has given him task to convert two excel worksheets STUDENT and ATTANEDANCE into a database. The files contains following structure:

Student	Attendance
Rno – To store roll no. of student	Att_date – Date of attendance
Sname – name of student	Rno – Roll no. of student
Dob – date of birth	Sname – name of student
Guardian – Guardian name	Status – present or absent

What changes Harmin has to do to convert these files into database?

22 Define the following:

   i. Attribute   ii. Cardinality

23 Differentiate between primary key and foreign key.

<div align="center">OR</div>

   Differentiate between delete and drop command.

24 Harshiv is working as Database Administrator in 5 star data solutions pvt. Ltd. He wants to do the following, suggest him commands to accomplish his task:

   a) He wants list all the table names present in a database

   b) He wants to change the salary of employees in emp table

25 Write the full form of:

  a) DDL   c) DESC

  b) DML   d) SQL

Section – C

26 Differentiate between candidate key and primary key.

<div align="center">OR</div>

   Observe the following table and write answers for the below given questions:

Table Name: Movie

Movie_id	Movie_name	Category	releasedate	Director
M0001	Ghandhi Godse	History	2023-01-26	Rajkumar Santoshi
M0002	Faraaz	Action	2023-02-03	Hansal Mehta
M0003	Shehzada	Drama	2023-02-10	Rohit Dhawan

  i) Write command to drop primary key from movie table.

  ii) Write command to rename column releasedate to release_date.

  iii) Write command to delete table movie

27 What are the three models of cloud services? Explain each of them.

28 What is default constraint? How to apply default constraint using create table command and alter table command?

29 Give the terms used for the following:

  i) Collection of logically related records

  ii) A file having description about data stored into the database

  iii) A special value that can be used to hold unknown values

  iv) A field which can identifies distinct records but not a primary key

  v) A constraint that does not allow to leave any blank cell in table

  vi) Name any two data models that is used most commonly

30 Write a program to that finds factorial of given number.

<center>**OR**</center>

Write python program to find greatest common divisor of two numbers.

Section – D

31 Given a list l=["def","if","for","while"], predict the output of the following:

a) print(l[1:][:2])

b) print(l[1][1])

c) print(l[-2])

d) print(l[:3])

e) print(l[2][:2])

<center>**OR**</center>

Write a program to compute the square of each element and print them in reverse order.

32 Write a python program to find the maximum marks and minimum marks from given dictionary and print the difference between them.

Dictionary is as: {'Henil':78,'Kartvya':82,'Avee':93,'Dhruvin':88,'Shaan':94}

<center>**OR**</center>

What is a dictionary? Explain any four ways to create a dictionary with example.

33 a) Categorize the given commands into DDL and DML

i. INSERT   ii. UPDATE   iii. ALTER   iv. CREATE

b) What is the use of foreign key? Illustrate your answer with example.

<center>**OR**</center>

Consider the below given table and write queries for (i) to (v):

Table Name: Pet

Name	Owner	Species	Gender	Age
Monty	Aditya	Dog	M	4
Badal	Dev	Horse	M	4
Moti	Motisingh	Dog	M	3
Mittu	Harsh	Parrot	M	2
Pinky	Kartvya	Cat	F	1
Sweety	Vyas	Cat	F	2

i) Display all the details of pets in alphabetical order of names.

ii) Display Name, owner and age of all pets whose age is 2 to 4 years.

iii) Increase the age of all pets by 1 year.

iv) delete all details of female pets.

v) insert a new record: ('Rosy','Rajveer','Dog','F',2)

34 Observe the partial code given below and fill in the given blanks to complete the code:

```
date= _____  #Statement 1
days= _____  # Statement 2
due_date= _____  # Statement 3
_____# Statement 4
```

a) Enter the date into string format # Statement 1

b) Enter days to be added # Statement 2

c) Extract first two digits and add entered days # Statement 3

d) Print the due date with proper message # Statement 4

35 Name the input devices and output devices from following:

a) To accept the spoken words as input

b) To accept data from photo

c) What is plotter? What its primary function?

OR

What is braille keyboard? Why it is used?