



**SUBBIAH CENTRAL SCHOOL**  
**CLASS XI**  
**INFORMATICS PRACTICES (065)**

**TIME: 3 HOURS**

**M.M.70**

**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.

<b>PART A</b>		
1.	i) Which command is used to Open a Database? ii) Which command is used to remove the Database?	1
2.	Which is the DDL and which is the DML Command? ALTER TABLE , INSERT INTO	1
3.	What is the command to create a database?	1
4.	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
5.	____ declares that an index in one table is related to that in another table. (i) Primary Key (ii) Foreign Key (iii) Composite Key (iv) Secondary Key	1
6.	Write a SQL query to display the Name of all those employee whose ENAME Field contains 4 <sup>th</sup> character as 'S' from the table EMPLOYEE.	1
7.	Write a SQL query to display records in ascending order of their Salary from the table EMPLOYEE. Field Name SALARY.	1
8.	What is the difference between DELETE and DROP command in SQL. Explain with example.	1
9.	List any 2 limitations of file system that can be overcome by a relational DBMS?	1
10.	Define the following terms in the context of Database (i) Relation (ii) Tuple	1
11.	Which of the following is not RDBMS software? a) Oracle b) MS Excel c) MySQL d) MS Access	1
12.	The design of data is known as a) Database Schema b) Data Constraint c) Data Dictionary d) Database Instance	1
13.	The SQL statements ends with a) , b) : c) ; d) “	1

14.	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																														
15.	Sahil wants to delete a primary key constraint from the table. Select an appropriate command which help him. a) Create b) Alter c) Drop d) Delete	1																														
16.	Rajveer wants to rename column in display result for his query. He has given he following queries, select correct query for him: a) select ename, salary*12 Annual Salary from emp; b) select ename, salary*12 rename "Annual Salary" from emp; c) select ename, salary * 12 change "Annual Salary" from emp; d) select ename, salary*12 as "Annual Salary" from emp;	1																														
Q17 and 18 are ASSERTION AND REASONING based questions. Mark the correct choice as i. Both A and R are true and R is the correct explanation for A ii. Both A and R are true and R is not the correct explanation for A iii. A is True but R is False iv. A is false but R is True																																
17.	<b>Assertion(A):</b> An intelligent machine is supposed to imitate some of the cognitive functions of humans like learning, decision making and problem solving. <b>Reasoning(R):</b> In order to make machines perform tasks with minimum human intervention, they are programmed to create a knowledge base and make decisions based on it.	1																														
18.	<b>Assertion(A):</b> Robots were initially conceptualized for doing repetitive industrial tasks that are boring or stressful for humans or were labor-intensive. <b>Reasoning(R):</b> Algorithms are one of the prime components of a robot.	1																														
<b>PART B</b>																																
19.	Write any four applications of DBMS.	2																														
20.	Define the following: i. Domain ii. Degree	2																														
21.	Mr. Malhotra is working on a MySQL table named 'Stud' with following table schema:  <table border="1" style="background-color: #2e3436; color: #eeeeec; border-collapse: collapse; width: 100%; text-align: center;"> <thead> <tr> <th>Field</th> <th>Type</th> <th>Null</th> <th>Key</th> <th>Default</th> <th>Extra</th> </tr> </thead> <tbody> <tr> <td>regno</td> <td>int</td> <td>NO</td> <td>PRI</td> <td>NULL</td> <td></td> </tr> <tr> <td>name</td> <td>varchar(30)</td> <td>YES</td> <td></td> <td>NULL</td> <td></td> </tr> <tr> <td>marks</td> <td>int</td> <td>YES</td> <td></td> <td>0</td> <td></td> </tr> <tr> <td>dob</td> <td>date</td> <td>NO</td> <td></td> <td>NULL</td> <td></td> </tr> </tbody> </table>	Field	Type	Null	Key	Default	Extra	regno	int	NO	PRI	NULL		name	varchar(30)	YES		NULL		marks	int	YES		0		dob	date	NO		NULL		2
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i. Which command is used to get the above table as output ii. Write the query to create the table and insert one record to it																																

22.	<p>Dhruvee has given the following table structure and asked to create a table in MySQL. Help her by writing create table command to accomplish her task.</p> <p style="text-align: center;"><b>Table Name: players</b></p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>ColumnName</th> <th>datatype</th> <th>size</th> </tr> </thead> <tbody> <tr> <td>jersey_no</td> <td>int</td> <td>2</td> </tr> <tr> <td>player_name</td> <td>varchar</td> <td>20</td> </tr> <tr> <td>Matches_played</td> <td>int</td> <td>3</td> </tr> <tr> <td>Runs</td> <td>int</td> <td>5</td> </tr> </tbody> </table>	ColumnName	datatype	size	jersey_no	int	2	player_name	varchar	20	Matches_played	int	3	Runs	int	5	2										
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23.	What do you mean by constraints? Enlist the constraints supported by MySQL.	2																									
24.	What is the difference between ALTER and UPDATE command in SQL. Explain with example.	2																									
25.	<p>Consider the following tables STATIONERY and write SQL query for the given questions:-</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>S ID</th> <th>STNAME</th> <th>COMPANY</th> <th>PRICE</th> </tr> </thead> <tbody> <tr> <td>DP01</td> <td>DOT PEN</td> <td>ABC</td> <td>20</td> </tr> <tr> <td>PL02</td> <td>PENCIL</td> <td>NULL</td> <td>16</td> </tr> <tr> <td>ER05</td> <td>ERASER</td> <td>XYZ</td> <td>17</td> </tr> <tr> <td>PL01</td> <td>PENCIL</td> <td>CAM</td> <td>15</td> </tr> <tr> <td>GP02</td> <td>GEL PEN</td> <td>ABC</td> <td>25</td> </tr> </tbody> </table> <p>a) Display details of those Items whose company name is null.  b) Display details of those items whose Item name contains character 'E' anywhere in the STNAME.</p>	S ID	STNAME	COMPANY	PRICE	DP01	DOT PEN	ABC	20	PL02	PENCIL	NULL	16	ER05	ERASER	XYZ	17	PL01	PENCIL	CAM	15	GP02	GEL PEN	ABC	25	2	
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<b>SECTION C</b>																											
26.	<p>Priyam is Class XI student. She is learning some basic commands. Suggest some SQL commands to her to do the following tasks:</p> <ol style="list-style-type: none"> <li>i. To show the lists of existing databases</li> <li>ii. Select a database to work</li> <li>iii. Create a new database named Annual_Exam</li> </ol> <p style="text-align: center;"><b>OR</b></p> <p>Observe the following table and write answers for the below given questions:</p> <p style="text-align: center;"><b>Table Name: Movie</b></p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Movie_id</th> <th>Movie_name</th> <th>Category</th> <th>releasedate</th> <th>Director</th> </tr> </thead> <tbody> <tr> <td>M0001</td> <td>Ghandhi Godse</td> <td>History</td> <td>2023-01-26</td> <td>Rajkumar Santoshi</td> </tr> <tr> <td>M0002</td> <td>Faraaz</td> <td>Action</td> <td>2023-02-03</td> <td>Hansal Mehta</td> </tr> <tr> <td>M0003</td> <td>Shehzada</td> <td>Drama</td> <td>2023-02-10</td> <td>Rohit Dhawan</td> </tr> <tr> <td>M0004</td> <td>Bawaal</td> <td>Null</td> <td>2023-04-07</td> <td>Nitesh Tiwari</td> </tr> </tbody> </table> <p>i) Write command to add movie_id as primary key.  ii) Write command to change the size of category column to 50 characters.  iii) Write command to delete column releasedate</p>	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	M0004	Bawaal	Null	2023-04-07	Nitesh Tiwari	3
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27.	Differentiate between Augmented Reality and Virtual Reality.	3																									

28.	Write any three advantages of DBMS over flat file system.	3																																																
29.	Define following: i) Database Schema      ii) Database Instance      iii) Database Engine	3																																																
30.	Match the following clauses with their respective functions.	3																																																
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31.	Consider the table MARKS and write SQL query for the question i to ii and find output for the given SQL query from iii to v.	5																																																
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	i) Display the details of all Science students.																																																	
	ii) Display the details of students who are in class 12 sorted by stipend.																																																	
	iii) SELECT SNAME, GRADE FROM MARKS WHERE SNAME LIKE “%S” ;																																																	
	iv) UPDATE MARKS SET STIPEND = STIPEND*2 WHERE GRADE = ‘C’ ;																																																	
	v) SELECT STREAM, AVGMARK FROM MARKS WHERE AVGMARK > 90;																																																	

32. Consider the below given table and write queries for (i) & (ii) and output of (iii) –(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 name, owner and gender for all dogs.  
 ii) Display Name, owner and age of all pets whose age is more 2 years.  
 iii)select name, owner from pet where owner name like '%ya';  
 iv) select name, age from pet where species = dog and age between 1 and 3;  
 v) select \* from pets where species in ('horse', 'parrot');

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33. Choose appropriate answer with respect to the following code snippet.

```
CREATE TABLE student (
name CHAR(30),
student_id INT,
gender CHAR(1),
PRIMARY KEY (student_id));
```

- a) What will be the degree of student table?  
 i) 30 ii) 1 iii) 3 iv) 4
- b) What does 'name' represent in the above code snippet?  
 i) a table ii) a row iii) a column iv) a database
- c) What is true about the following SQL statement?  
 Select \* FROM student;  
 i) Displays contents of table 'student'  
 ii) Displays column names and contents of table 'student'  
 iii) Results in error as improper case has been used  
 iv) Displays only the column names of table 'student'
- d) What will be the output of following query?  
 INSERT INTO student  
 VALUES ("Suhana", 109,'F'), VALUES ("Rivaan", 102, 'M'),  
 VALUES ("Atharv", 103,'M'),  
 VALUES ("Rishika", 105,'F'),  
 VALUES ("Garvit", 104,'M'),  
 VALUES ("Shaurya", 109,'M');  
 i) Error ii) No Error  
 iii) Depends on compiler iv) Successful completion of the query

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e) In the following query how many rows will be deleted?  
 DELETE student  
 WHERE student\_id=109;  
 i) 1 row ii) All the rows where student ID is equal to 109  
 iii) No row will be deleted iv) 2 rows

**SECTION – E**

34. Match the following:

Column A	Column B
You got a reminder to take medication	Smart Parking
You got a SMS alert that you forgot to lock the door	Smart Wearable
You got the SMS alert that parking space is available near your block	Home Automation
You turned off your LED TV from your wrist watch	Smart Health

4

35. Answer the following questions based on the given table:

Admno	Name	Subject	Sex	Average
1001	Amit	Math	M	85.5
1002	Suman	English	F	90

- i. How many attributes are there in the above table?
- ii. How many tuples are there in the above table?
- iii. What is the degree of the above table?
- iv. What is the cardinality of the above table?

4