

Autumn Break 2017
Exam Oriented Assignment
Class-XII D, Informatics and Practices

S.No.	Name of Chapter/Topic	HOT Questions	MLP Questions								
1	JAVA METHOS AND CLASSES OBJECTS	<p>1. What do you understand by member function? 2. Differentiate between local and global class with help of example.</p> <p>Define a class DanceAcademy in C++ with following description:</p> <p>Private Members</p> <ul style="list-style-type: none"> ● Enrollno of type int <p>● Name of type string ● Style of type string ● Fee of type float ● A member function chkfee() to assign the value of fee variable according to the style entered by the user according to the criteria as given below:</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="text-align: center;">Style</th> <th style="text-align: center;">Fee</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">Classical</td> <td style="text-align: center;">10000</td> </tr> <tr> <td style="text-align: center;">Western</td> <td style="text-align: center;">8000</td> </tr> <tr> <td style="text-align: center;">Freestyle</td> <td style="text-align: center;">11000</td> </tr> </tbody> </table> <p>Public Members</p> <ul style="list-style-type: none"> ● A function enrollment() to allow users to enter values for Enrollno,Name, Style and call function chkfee()to assign value of fee variable according to the Style entered by the user. ● A function display() to allow users to view the details of all the data members. 	Style	Fee	Classical	10000	Western	8000	Freestyle	11000	<ol style="list-style-type: none"> 1. What are static class members? 2. Differentiate between private and public members of a class in context of Object Oriented Programming. Also give a suitable example illustrating accessibility/no accessibility of each using a class and an object in C++. 3. WAP a program in java using method to calculate the factorial of a given number. 4. WAP a program to calculate the table of a given number. 5. Differentiate between actual and formal parameters? 6. Define the following terms in context to OOP: <ol style="list-style-type: none"> a. Class: b. Object c. Data members d. Methods / Member functions
Style	Fee										
Classical	10000										
Western	8000										
Freestyle	11000										

- (a) Observe the following table CANDIDATE carefully and write the name of the RDBMS operation out of (i) SELECTION (ii) PROJECTION (iii) UNION (iv) CARTESIAN PRODUCT, which has been used to produce the output as shown in RESULT. Also, find the Degree and Cardinality of the RESULT. **2**

TABLE : CANDIDATE

NO	NAME	STREAM
C1	AJAY	LAW
C2	ADITI	MEDICAL
C3	ROHAN	EDUCATION
C4	RISHAV	ENGINEERING

RESULT

NO	NAME
C3	ROHAN

- (b) Write SQL queries for (i) to (iv) and find outputs for SQL queries (v) to (viii), which are based on the tables : **6**

TABLE : BOOK

Code	BNAME	TYPE
F101	The priest	Fiction
L102	German easy	Literature
C101	Tarzan in the lost world	Comic
F102	Untold Story	Fiction
C102	War heroes	Comic

- What is DBMS?
- What is relational database model?
- Relation
- Tuples

- SQL
- DDL
- DML
- Relational Algebra
- Selection
- Projection
- Union
- Cartesian Product
- Domain
- Degree
- Cardinality
- Keys
- Candidate Key:
- Primary Key:
- Alternate Key:
- Super Key
- Structured Query Language (SQL)
- Advantages of using SQL:

- Types of SQL Statements

- Data Definition Language (DDL) statement
- Create table
- Drop table
- Alter table
- Data Manipulation Language (DML) statement
- Select
- Update
- Delete
- Insert
- Transaction Control Statement

- (a) What is the purpose of ORDER BY clause in MySql? How is it different from GROUP BY clause?
 (b) Table SCHOOL has 4 rows and 5 columns. What is the Cardinality and Degree of this table?

TABLE : MEMBER

MNO	MNAME	CODE	ISSUEDATE
M101	RAGHAV SINHA	L102	2016-10-13
M103	SARTHAK JOHN	F102	2017-02-23
M102	ANISHA KHAN	C101	2016-06-12

- (i) To display all details from table MEMBER in descending order of ISSUEDATE.
- (ii) To display the BNO and BNAME of all Fiction Type books from the table BOOK.
- (iii) To display the TYPE and number of books in each TYPE from the table BOOK.
- (iv) To display all MNAME and ISSUEDATE of those members from table MEMBER who have books issued (i.e. ISSUEDATE) in the year 2017.
- (v) **SELECT MAX (ISSUEDATE) FROM MEMBER;**
- (vi) **SELECT DISTINCT TYPE FROM BOOK;**
- (vii) **SELECT A.CODE, BNAME, MNO, MNAME
FROM BOOK A, MEMBER B WHERE A.CODE=B.CODE;**
- (viii) **SELECT BNAME FROM BOOK
WHERE TYPE NOT IN ("FICTION", "COMIC");**

5. Write the command for the following-

- a. Create table CUSTOMER as per following Table structure.

Column Name	CustID	CustName	CustAdd1	CustAdd2	CustPhone
Data Type	NUMBER	VARCHAR	VARCHAR	VARCHAR	VARCHAR
Length	7	30	20	30	10

- b. Add one column Email of data type VARCHAR and size 30 to table Customer.
- c. Add one more column CustIncomeGroup of data type VARCHAR(10).
- d. Insert few records with relevant information in the Customer table.
- e. Drop the column CustomerIncomeGroup from table Customer.

6. Write the commands for the followings:

- a. Create table CUSTOMER as per following Table structure

Col. name	EmpID	EmpName	EmpAdd	EmpPhone	EmpSal	DeptID
Key type	Primary					Foreign
Nulls /Unique		NOT NULL				
Fk Table						Department
Fk Column						Dept_ID
Datatype	NUMBER	VARCHAR	VARCHAR	VARCHAR	NUMBER	VARCHAR
Length	6	20	30	10	9,2	2

- b. Delete the Primary key constraints from the CUSTOMER table.
- c. Change the datatype of EmpSal to Number(10,2) from Number (9,2).

17. Given the following table:

TABLE: CLUB

COACH_ID	COACHNAME	AGE	SPORTS	DATOFAPP	PAY	SEX
1	KUKREJA	35	KARATE	1996-03-27	1000	M
2	RAVINA	34	KARATE	1998-01-20	1200	F
3	KARAN	34	SQUASH	1998-02-19	2000	M
4	TARUN	33	BASKETBALL	1998-01-01	1500	M
5	ZUBIN	36	SWIMMING	1998-01-12	750	M
6	KETAKI	36	SWIMMING	1998-02-24	800	F
7	ANKITA	36	SQUASH	1998-02-20	2200	F
8	ZAREEN	37	KARATE	1998-02-22	1100	F

Give the output of following SQL statements:

- (i) **SELECT LCASE (SPORTS) FROM Club;**
- (ii) **SELECT MOD (Age, 5) FROM CLUB WHERE Sex = 'F';**
- (iii) **SELECT POWER (3, 2) FROM CLUB WHERE Sports='KARATE';**
- (iv) **SELECT SubStr (CoachName, 1, 2) FROM CLUB WHERE Datofapp>'1998-01-31';**

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IT Applications

10. Mr. Thakare is working as a Manager in the Kendriya Vidyalaya. He wants to create a form with following functions. Choose appropriate required object type and write in the third column

Sno	Control used to :	Object Type
1.	Enter the First Term Marks	
2.	Enter the Second Term Marks	
3.	Enter the Third Term Marks	
4.	Enter the Percentage	
5.	To checked if student ia an NCC cadet	
6	TO provide Stream Information (medical or non medical)	
7	To calculate Percentage	
8	To calculate grade	
9	To clear the entered text To exit	

Develop a GUI application to perform data input operation using front-end and back-end tools

TYPE A: VERY SHORT ANSWER QUESTION

- Define the following-
 a) E-Governance b) E-Business c) E-Learning
- List any five web portal with their purposes involved in E-Governance.
- List any five web portal with their purposes involved in E-Commerce or Business.
- List any five web portal with their purposes involved in E-Learning
- Define the followings-
 1. Entity 2. Attribute 3. Relation 4. Relationship

9. Mr. Das is working as a Manager in the Shivam Enterprises. He wants to create a form with following functions. Choose appropriate controls from Text box, Label, Option button, Check box, List box, Combo box, Command button and write in the third column:

Sno	Control used to :	Control
1.	Enter the name, Address, Basic salary	
2.	Select the Gender (M/F)	
3.	Select the department from the available list	
4.	Choose type of employee (Permanent / Regular)	
5.	Display the picture of the employee	

Develop a GUI application to perform data input operation using front-end and back-end tools

TYPE B: SHORT ANSWER QUESTION

- How has society benefitted from e-governance? What are the limitations of e-governance?
- How has society benefitted for e-business? Discuss its limitations?
- How has society benefitted for e-learning? Discuss its societal impacts?
- Discuss some popular e-business types incorporated through e-business systems.
- What is meant by E-governance Model? How E-Government interacts Citizen, Business and Government.
- What do mean by Front-end and Back-end?
- What is GUI Interface? Discuss some guidelines be followed during design of Interface.
- What do you mean by DDLC? What are the major steps followed during design of a Database?
- What is ER-Diagram? How it helps you to model the database?
- What types of relationship are found among entities? Discuss with examples.

BEST OF LUCK