Marking Scheme (2018-19)
DATABASE
MANAGEMENT APPLICATIONS (795)
XII

Time Allowed: 2.5hours   Maximum marks: 50

SECTION – A

Attempt any ten from the following   **10 x 1=10**

1. The number of attributes in a relation is called the _____of a relation.
a. Tuple
b. Table
c. Cardinality
d. Degree

Ans Degree

2. In order to restrict the values of an attribute within a range, _____constraint to be used.
a. Check
b. NULL
c. Default
d. NOT NULL

Ans Check

3. _____ command is used to eliminate duplicate values of an attribute in the select query
a. Update
b. Unique
c. Distinct
d. No Duplicate

Ans Distinct

4. _____ command is used to delete the structure of the table
a. Drop Table
b. Drop Database
c. Delete Table
d. Alter Table

Ans Drop Table

5. _____is the use of electronic i.e. information and communication technology (ICT) tools for governance by the government for the citizens
a. E Learning

b. e Commerce
c. E-Governance
d. E payment

Ans E-Governance

6. E business offers advantages and opportunities, there are also risks and barriers. These include
(a) Violation of customer privacy
(b) Spikes causing websites to fail at peak times
(c) Internet hackers penetrating company security
d) All of the above

Ans: All of the above

7. Which segment do Flip Kart belong to ?
(i) B2B (Business to Business)
(ii) C2C (Consumer to Consumer)
(iii) C2B (Consumer to Business)
(iv) B2C (Business to Consumer)

Ans B2C (Business to Consumer)

8. _____ translates the byte code into machine code and then executes it.

Ans: Java Virtual Machine (JVM)

9. _____ is a method to convert the string into its integer equivalent.
a. Integer.toString()
b. Integer.valueOf()
c. Integer.parseInt()
d. Float.parseFloat()

Ans: Integer.parseInt()

10. Which of the following statements is false about objects?
a. Object is an instance of a class
b. Object is capable of storing data
c. Each object has its own copy of methods
d. None of the above

Ans: None of the above

11. _____ statement is used to use a prebuilt class and associated methods in those class from the package
a. Include
b. Public

C. Extend

d. Import

Ans Extend

12. _____ method of a String class converts all of the characters in this String to lower case
   a) e. Lcase()
   b)toLowerCase()
   c)oLcase()
   d) isLower()

   Ans toLowerCase()

(1 Mark each for correct answer)

Very short Answer Questions   (5X2=10)

13. Sana has given the following query but she is unable to execute it successfully. Write the correct query after rectifying the error   (2)
Select Name, Marks
from student Table
Where Name ="P%"

Select Name, Marks
from student
Where Name like "P%"
(1 Mark for each correction)

14. Differentiate between DDL and DML.   (2)
DDL is a language which is used to define structure and constraints of data
DML is used to insert, modify and delete data in a database.
DDL – Create table, Alter table, Drop table
DML- Insert, Update Delete
(2 Marks for difference with example)

15. Name one front end and one Back end application to create Web Applications   (2)
Front end Java NetBeans
Back end MySQL
(1 Mark for each Application)

16. List advantages of Work Integrated Learning with a suitable example.   (2)
   Ans Allows user to Integrate front end and back end Applications
   Example Database can be created in any RDBMS package and Front End can be created in Java NetBeans
   (2 Marks for correct explanation with valid example)

17. (a) Categorize the following as e-Governance and e-Learning applications. `   (2)
   i) On-line experiments in a virtual Chemistry lab of a college.
   ii) On-line application submission for change of address in the passport.

iii) On-line bill payment of electricity Charges.
iv) On-line tutorials on w3schools.com

Ans e-Learning – I, iv
e- Governance – ii, iii
(1/2 Mark for each correct answer)

18. Describe any one social and economic impact of eCommerce.   (2)
    Ans The biggest positive social impact is easier and broader access to that product.
        Economic impact – It is reshaping the method of doing business
(1 Mark each for any valid point)

19. Describe how Database management applications can be used in the Banking sector   (2)
        Database for the Customers (Saving/ Current)
        Loan/ Type of Loan
        (2 Marks for correct explanation)

Short Answer Questions (5X3=15)

20. Explain main phases of Web Application Development.   (3)
Ans Phases in a Web Application Project

Following are four main phases of development:

 1) Requirements Definition Phase

2) Design Phase

3) Implementation Phase

4) Testing Phase

Additionally, for all these phases there is a Planning and Monitoring phase

(1 Mark for each correct name)

21. Pragya has registered herself on www.swayam.gov.in for a free online course on elementary education.
Mention any three advantages of eLearning.   (3)
Ans Advantages

1. It provides freedom to the learner to learn at their convenient location, convenient time and at their own pace of learning.
2. There is no discrimination of age, caste, gender, background, or the qualification of the learner.
3. The tutorials may be enriched with audio and video information, which makes learning more enjoyable and attractive.

Also, tutorials and tests are available for almost all topics, sometimes in regional languages also.

(1 Mark for each advantage)

22. Predict the output generated by the following code Categorize the loop as entry control or exit control

(2+1)

```
int x =10, b=30;
while (x<=40)
{
x+=b;
b-=2;
System.out.println(" "+x);
}
```

Ans: 40

       68

Entry Control Loop

(2 Marks for output and 1 mark for identification)

23. Write a JAVA program to input a number. If the number is even then Display its square otherwise its cube.

Ans

(3)

```
int a, result;

a=Integer.parseInt(jTextField1.getText());

if(a%2==0)

        result=a*a;

else if(a%2!=0)

        result=a*a*a;

System.out.println(" " +result);
```

(1 Mark for correct declaration of variables
1 Mark for checking even/odd
1 Mark for calculating result)

24. What are exceptions in Java? Describe the keywords used for handling Exceptions in JAVA (3)
Ans An error situation that is unexpected in the program execution and causes it to terminate unexpectedly is called
     an exception.
Java provides the following keywords to handle an exception:
try - A try block surrounds the part of the code that can generate exception(s).

catch – The catch blocks follow a try block. A catch block contains the exception handler - specific code that is executed when the exception occurs. Multiple catch blocks following a try block can handle different types of exceptions.

(1 Mark for correct definition, 1 each for try and catch)

25. Explain User Interface with a suitable example (3)

Ans   User Interface is a design of an application with which user interacts or communicates with the program. It must be user friendly, easy to interact. For example

(1 Mark for explanation, 2 marks for example)

26. Illustrate Work Integrated learning with reference to Education Sector (3)

Ans: For storing information such as student details, marks and result.

For storing information about faculty and staff members.

For storing details about school/college such as infrastructure details, department and offered course details.

Any of the above mentioned points can be explained in detail with suitable front end interface.

(3 Marks for explanation with suitable example)

SECTION B
Long Answer Questions (3X5=15)

27. Consider the following table **Doctor** and answer the following Queries in SQL (5)

ID	Department	OPD_DAYS	Doctor_Name	Fee
H201	ENT	MWF	Akaash Arora	400
H308	Oncology	TTS	Dharma Sharma	600

H907	Paediatrics	MWF	Sanjay Singh	500
H896	ENT	TTS	Praveen Sethi	400
H675	Gynecology	TTS	Kavita Sharma	450
H357	Haematology	MWF	Dinesh Chaudhry	600

I.   To display the name of all Doctors who visit OPD on 'MWF'
     Ans :
     Select Doctor_Name
     from Doctor
     where OPD_DAYS = "MWF";

II. To display the all the details of Doctors whose Department ends with 'y'
     Ans:
     Select *
     from Doctor
     where Department Like '%y';

III. To count the Number of Doctors in ENT Department
     Ans:
     Select Count(*)
     From Doctor
     Where Department = 'ENT';

IV. To display names and the fee of doctors in the descending order of fee
     Ans:
     Select Doctor_Name, Fee
     From Doctor
     Order by Fee Desc;

V.   To add a new column Phone No to a table Doctor
     Ans :
     Alter Table Doctor
     Add Phone_No char(10);

(1 Mark each for correct query
½ Mark each for partially correct Query)

28. What is eGovernance? Write advantages of eGovernance.   (2+3)
     Ans: E-Governance or electronic governance is the use of electronic i.e. information and communication technology (ICT) tools for governance by the government for the citizens

     Advantages

     E-governance empowers the citizens socially and economically, and enhances their lives by providing them with quality information and better services.

It enables citizens to access information directly, without paying any money to a middleman or a tout.

It ushers transparency in the system.

(2 Marks for correct definition, 3 Marks for any 3 Advantages)

29. Ananya is trying to Book online railway ticket. Mention two precautions she has to take while making online transaction; also write three advantages of online payment. (5)

Ans: Precautions

Use a strong password like mix case, use numbers and special characters. This decreases ability of automated attacks by trying different character combinations.

Be cautious not to leave passwords around and do not share them with friends. Never use names of near and dear ones as passwords.

Open site on authentic system

Delete History and cookies while working on public network.

Advantages

Doesn't have to stand in long queues.

No Bribes

Can make payment at own ease.

(2 Marks for any 2 precautions, 3 Marks for any 3 Advantages)

30. (i) Write a JAVA program (method) to develop an application to accept sales of a company for four quarters. Calculate the total yearly sale and display the same.

Ans :

```
float  q1,q2,q3,q4,total;
q1=Float.parseFloat(jTextField1.getText());
q2=Float.parseFloat(jTextField2.getText());
q3=Float.parseFloat(jTextField3.getText());
q4=Float.parseFloat(jTextField4.getText());
total=q1+q2+q3+q4;
jTextField5.setText(Float.toString(total));
```

(1 Marks for variable declaration and getText()
1 Mark for Total
1 Mark for displaying the result)

(ii) Explain any two methods of String Class (3+2)

Ans- String toLowerCase()

Converts all of the characters in this String to lower case String.toLowerCase ( )

String concat (String str)

Concatenate the specified string at the end of this string

(Any two String class functions)

(2 Marks for Any 2 Functions)

31. (i) Write a JAVA program (method) to develop an application in JAVA to calculate Marks in 5 subjects and show the percentage of Students.
Ans :

```
float  m1,m2,m3,m4,m5,total,perc;
m1=Float.parseFloat(jTextField1.getText());
m2=Float.parseFloat(jTextField2.getText());
m3=Float.parseFloat(jTextField3.getText());
m4=Float.parseFloat(jTextField4.getText());
m5=Float.parseFloat(jTextField5.getText());
total=m1+m2+m3+m4+m5;
perc=(total/500)*100;
jTextField6.setText(Float.toString(perc));
```

(1 Marks for variable declaration and getText()
1 Mark for Total
1 Mark for Displaying the result)

(ii) Differentiate between Class and Object with a suitable example

Ans :   A class is a physical or logical entity that has certain attributes.

A program is collection of objects that interact with other objects to solve a problem. Each object is an instance of a class.

Once the class is defined, we can create objects of the class and access its members. To create an object of a class we use the keyword new. We can create objects of the class Book in a Java class file of our package

(2 Marks for correct Difference with example)