

MID- TERM EXAMINATION 2023-24**Subject: INFORMATION TECHNOLOGY****SET -A****Time Allowed : 3 Hrs****Max. Marks: 60****General Instructions:**

- 1. Please read the instructions carefully**
- 2. This Question Paper is divided into 02 sections, viz., Section A, Section B**
- 3. Do as per the instructions given in the respective sections.**
- 4. Marks allotted are mentioned against each section/question.**
- 5. All questions must be attempted in the correct order**

SECTION A**Q1 Answer the following questions on Employability Skills****(1 x 4 = 4 marks)**

1	_____ is a trait, wherein, individuals show tendency towards anxiety, self-doubt, depression, shyness and other similar negative feelings. a) Consciousness b) Extraversion c) Agreeableness d) Neuroticism	1
2	What is the default alignment of numbers in a cell? a) Left aligned b) Right aligned c) Center aligned d) Randomly aligned	1
3	Ridhi owns a construction company and takes risky decisions in her work everyday. Ridhi is an _____. a) entrepreneur b) wage employed person c) labourer d) None of these	1
4	Mary believes that she will not have the ability to work with a team when she starts her business. The barrier she is facing is _____. a) getting capital b) self-doubt c) risk taking d) None of these	1

Q2	Answer any 6 out of the given 7 questions	(1X6=6)
i	_____command displays all the tables created in the current database.	1
ii	_____ symbol replaces a single character while matching a pattern with LIKE keyword. a) & b) * c) \$ d) None of these	1
iii	Rajan has written the following query but it is giving an error. Rectify the error and rewrite the query. SELECT * FROM EMPLOYEE SORT BY SALARY;	1
iv	The number of attributes in a relation is called the _____ of a relation. a) Tuple b) Degree c) Cardinality d) Relation	1
v	Define Front End, with respect to web-based application project.	1
vi	_____ offers free tutorials in all web development technologies like HTML, CSS, Javascript, PHPetc. a) w3schools.com b) ncert.com c) udacity.org d) None of these	1
vii	DEITY stands for _____ a) Department of Electronics and Information Technology b) Department of Electric and Information Technology c) Division of Electronics and Information Technology d) Department of Electronics and Information Television	1
Q3	Answer any 6 out of the given 7 questions	(1X6=6)
i	The expression $p = *9$ is same as $p = p * 9$. a) True b) False c) Maybe d) None of the above	1
ii	Choose the correct answer after evaluating the value of n, if value of $p=5, q=19$ $int\ n = (q-p) > (p-q) ? (q-p) : (p-q) ;$ a)12 b)13 c)14 d)-14	1
iii	Which of the following is not a jump statement in Java? a) break b) return c) jump d) continue	1

iv	<p>How many times will the following loop execute?</p> <pre>public static void main(String[] args) { int sum=0; for (int i=10; i>5;i++) { sum=sum +i; } System.out.println(sum); }</pre> <p>a) 5 b) 0 c) 15 d) Infinite loop</p>	1												
v	How can you write single line comment in Java?	1												
vi	<p>Write the SQL statement to eliminate the redundant values from the column city of the student table given below.</p> <p style="text-align: center;">Table Student</p> <table border="1"> <thead> <tr> <th>Sid</th><th>Sname</th><th>City</th></tr> </thead> <tbody> <tr> <td>101</td><td>Geeta</td><td>Jaipur</td></tr> <tr> <td>102</td><td>Smaira</td><td>Delhi</td></tr> <tr> <td>103</td><td>Ramesh</td><td>Jaipur</td></tr> </tbody> </table>	Sid	Sname	City	101	Geeta	Jaipur	102	Smaira	Delhi	103	Ramesh	Jaipur	1
Sid	Sname	City												
101	Geeta	Jaipur												
102	Smaira	Delhi												
103	Ramesh	Jaipur												
vii	_____ is the name of the memory location to store a value.	1												

Q4 Answer the following 5 questions out of the given 6 questions		(1 x5=5)
i	<p>Find the error in the following snippet</p> <pre>if(a>4?400:600) { System.out.println("It is correct"); }</pre>	1
ii	<p>Which of the following statement is correct to display all the cities whose humidity is in the range of 60 to 75 from the 'weather' table?</p> <p>a. SELECT * FROM weather WHERE humidity IN (60 to 75) b. SELECT * FROM weather WHERE humidity BETWEEN 60 AND 75 c. SELECT * FROM weather WHERE humidity NOT IN (60 AND 75) d. SELECT * FROM weather WHERE humidity NOT BETWEEN 60 AND 75</p>	1
iii	Define RDBMS.	1
iv	What is SQL?	1

v	What do you mean by the scope of a project?	1
vi	What is JVM?	1

SECTION B

Answer any 3 out of the given 5 questions on Employability Skills (2 x 3 = 6 marks) Answer each question in 20-30 words		
5	Entrepreneurship is an art and science. Explain	2
6	Ramesh wants to protect his spreadsheet from unauthorized access as it has some important data in it. What are the steps he can follow to protect the spreadsheet?	2
7	Define the term Intrinsic motivation.	2
8	What do you mean by SMART goals?	2
9	Define the term self-awareness.	2

Answer any 4 out of the given 5 questions (2 x 4= 8 marks) Answer the following questions in brief														
10	Define the term Program Data Independence.	2												
11	Differentiate between DDL and DML commands.	2												
12	<p>Consider the following table Teacher and answer the questions that follow: Table Teacher</p> <table border="1"> <thead> <tr> <th>Teacherid</th><th>Department</th><th>Periods</th></tr> </thead> <tbody> <tr> <td>T101</td><td>Science</td><td>32</td></tr> <tr> <td>T102</td><td>Null</td><td>30</td></tr> <tr> <td>T103</td><td>Mathematics</td><td>34</td></tr> </tbody> </table> <p>What will be the output of the following queries on the basis of the above table?</p> <p>a) Select count(Department) from Teacher;</p> <p>b) Select count(*)from Teacher;</p>	Teacherid	Department	Periods	T101	Science	32	T102	Null	30	T103	Mathematics	34	2
Teacherid	Department	Periods												
T101	Science	32												
T102	Null	30												
T103	Mathematics	34												

13	<p>Consider the following code for creating a table in the database:</p> <pre>CREATE TABLE Employee (EMP_ID INTEGER , First_Name VARCHAR(20) , Last_Name VARCHAR(20) , Dept_No INTEGER, FOREIGN KEY (Dept_No) REFERENCES Department (Dept_ID) ON DELETE CASCADE ON UPDATE CASCADE);</pre> <p>Explain the use of ON DELETE CASCADE ON UPDATE CASCADE in the above-mentioned code.</p>	2
14	Ramesh wants to change the default value of the Discount field in the structure of the Customer Table from 10 to 15. Write the SQL command for Ramesh.	2
Answer any 5 out of the given 6 questions (2X5=10)		
15	What are the precautions to be taken while performing Online Transactions?	2
16	What are the two broad categories of web-based online applications? Explain with examples.	2
17	Differentiate between if else and switch. Explain with syntax.	2
18	Define the concept of fall through situation in Java. Support your answer with suitable example.	2
19	Differentiate between for loop and while loop in Java. Elaborate with the help of an example.	2
20	<p>Predict the output of the following snippet</p> <pre>public static void main(String [] args) { int counter=50; while (true) { if(counter <5) break; counter=counter-5; } System.out.println(counter); }</pre>	2
Answer any 1 of the given 2 questions (3x1=3 marks)		
21	Define E-Governance. Explain its role and importance in empowering citizens by the Government.	3
22	<p>Find the errors in the following snippet:</p> <pre>char p,q; for (p=1;p<=5;p++) ; { Q=p*P*P System.out.Println(q); }</pre>	3

Answer the following questions**(4 x3=12 marks)**

23

a) What is the purpose of HAVING clause? How it is different from WHERE clause in SQL?

2+2

b) Consider the following table: Product and Client. Write the SQL commands for the statements i and ii.

Table Product

P_ID	Productname	Manufacturer	Price
TP01	TalcomPowder	LAK	40
FW05	Facewash	ABC	45
BS01	Bathsoap	ABC	55
SH06	Shampoo	XYZ	120
FW12	Facewash	XYZ	95

Table Client

C_ID	Clientname	City	P_ID
01	Cosmeticshop	Delhi	FW05
06	TotalHealth	Mumbai	BS01
12	LiveLife	Delhi	SH06
15	PrettyWoman	Delhi	FW12
16	Dreams	Banglore	TP01

i) To display the ClientName, City from table Client , productname and Price from table product, with their corresponding matching P_ID.

ii) To increase the price of all products by 10.

24

Write a program to demonstrate the use of post-increment and pre-decrement operators in Java.

4

25

Write a Java program to accept a number and display all even numbers till that number.

4