Name: Course Preferred:

                                           Course Provided:

                                           Marks Scored:

Trainer's Name: Counsellor's Name:

Aptitude : _____   HTML & CSS : _____   JS: _____   MySQL:_____

1. A train traveling from Station A to Station B takes 6 hours to cover the distance at a constant speed. If the speed of the train were increased by 20 km/h, it would take 4.5 hours to cover the same distance. What is the distance between Station A and Station B?

2. If A can complete a job in 10 days and B can complete the same job in 12 days, how long will it take to complete the job if they work together?

3. Complete the series: 2, 6, 14, 30, ___.

4. A box contains 4 red and 6 green balls. Two balls are drawn at random without replacement. What is the probability that both balls are red?

5. Ramesh said, "That boy playing cricket is the younger of the two brothers of my wife's mother." What is Ramesh's relation to that boy?

6. In a kilogram, there are 5 packets of Equal weight. Each packet can make any 4 notebooks of 180 pages each. What is the maximum number of 300-page notebooks that can be made from 3 kg of the same type of paper?

7. If a man is standing and a train of length 125 m long passes him, at a speed of 5 km/hr in the same direction in 10 seconds. Find at what speed the train is moving?

8. Which word does NOT belong with the others?

9. In certain code, Book is written as 4300, Mate is written as 3900. Which word is 2400

10. How do you center a div element in CSS?

11. 1How do you make a responsive navigation bar?

12. How do you show/hide a section when a button is clicked?

13. Write a JavaScript function to:

- Change the background color of the card to green.

- Change the button text to "Added to Cart".

- Disable the button to prevent multiple clicks.

14. How do you create a button that changes color when hovered using js?

15. How do you add an event listener to a button using js

16. What will typeof null return?

17. What is the output of: console.log(2 + "2")?

18. Scenario: Display a List of Students with Their Marks using JS

Use an array of student objects, each having name, rollNo, and marks.

- Print all students
- Filter those who passed (marks ≥ 40)
- Calculate average marks
- Sorting students by marks
- Highlighting toppers (e.g., marks > 80)
- Counting how many passed vs failed
- Converting it into an interactive HTML page

Write a sql queries based on the table

1. Employee Table

Column	Data Type	Description
emp_id	INT	Employee ID (Primary Key)
emp_name	VARCHAR	Employee Name
salary	DECIMAL	Employee Salary
dept_id	INT	Department ID (Foreign Key)
manager_id	INT	Manager's Employee ID (Nullable)

2. Department Table

Column	Data Type	Description
dept_id	INT	Department ID (Primary Key)
dept_name	VARCHAR	Department Name

3. Customers Table

Column	Data Type	Description
customer_id	INT	Customer ID (Primary Key)
customer_name	VARCHAR	Customer Name

4. Orders Table

Column	Data Type	Description
order_id	INT	Order ID (Primary Key)
customer_id	INT	Customer ID (Foreign Key)
order_amount	DECIMAL	Order Amount
order_date	DATE	Date of the Order

19. Find the second highest salary in the Employee table

20. Find employees who earn more than the average salary of their department(Employee table)

21. Find employees who have a salary greater than their manager's salary(Employee table)

22. Write a query to find the top 3 customers with the highest total order amount

Tables:

- Customers(customer_id, customer_name)
- Orders(order_id, customer_id, order_amount)

Find employees who earn more than the average salary of their department

Tables:

- Employee(emp_id, emp_name, salary, dept_id)
- Department(dept_id, dept_name)

23. a) Add a Foreign Key Constraint

Note:Add a foreign key on Employee.dept_id referencing Department.dept_id:

24. Drop a Foreign Key Constraint

Note:Assuming the foreign key name is fk_dept:

25. Delete employees who have no projects assigned (using NOT EXISTS).