Microsoft Access Practical Assessment (Basic Level)

Instructions: This assessment will help you practice the basic and essential tasks in Microsoft Access. Follow each question carefully and complete the tasks in your database.

# Section A: Tables

1. Create a table named Students with the following fields:

- StudentID (AutoNumber, Primary Key)  
- FullName (Short Text)  
- Class (Short Text)  
- Gender (Short Text)  
- DateOfBirth (Date/Time)  
- Address (Short Text)  
- ContactNumber (Short Text)  
- Email (Short Text)

2. Create another table named Marks with the following fields:

- MarkID (AutoNumber, Primary Key)  
- StudentID (Number)  
- Subject (Short Text)  
- Score (Number)  
- Term (Short Text)  
- Year (Number)

3. Enter at least 10 records in the Students table.

4. Enter at least 20 records in the Marks table. Make sure some students appear more than once.

# Section B: Relationships

5. Create a one-to-many relationship between the Students and Marks tables using StudentID.

6. Enforce referential integrity when creating the relationship.

# Section C: Queries

7. Show all students who scored more than 70.

8. Show all students who scored less than 50.

9. Show all marks for the subject 'Mathematics'.

10. Show all marks for the subject 'English' in Term 1.

11. Show the average score of each student.

12. Show the highest score in each subject.

13. Show all students with their total score across all subjects.

14. Show students who have written more than one subject.

15. Show students who did not write any subject.

16. Show the number of students who wrote each subject.

17. Show all students in Class '8B'.

18. Show students who were born after the year 2010.

19. Show students and their scores for each subject in Term 2.

20. Create a query that lets the user enter a subject name and shows the marks for that subject.

21. Create a query that asks the user for a minimum score and displays students who scored above that.

22. Create a query that displays the full name, subject, and score of all students, sorted by score from highest to lowest.

23. Create a query that shows all students whose names start with the letter ‘M’.

24. Create a calculated field that adds 5 bonus marks to each score.

25. Create a query to show the age of each student based on their Date of Birth.

# Section D: Forms and Reports

26. Create a form for entering new student details into the Students table.

27. Create a form for entering student marks into the Marks table.

28. Create a report that shows all students and their average scores.

29. Create a report that shows students grouped by Class.

30. Create a printable report card showing a student’s name, class, subjects, scores, and total marks.