

# **SEVEN ACADEMY**

First-class IT Training institute in Cameroon

# A. THEORY SECTION (30 marks)

# HTML & CSS (15 marks)

- What is the difference between relative and absolute positioning in CSS? (2 marks)
- Explain the difference between Grid and Flexbox. When would you use one over the other? (2 marks)
- In CSS Grid, explain what these terms mean:
  - grid-template-columns
  - grid-gap
  - grid-area (3 marks)
- Describe the purpose of the following table elements:
  - thead
  - colspan
  - caption (3 marks)
- What is z-index and how does it work with positioned elements? (2 marks)
- Explain the difference between grid-template-areas and grid-area. (3 marks)

#### Git & GitHub (15 marks)

• What is the difference between Git and GitHub? (2 marks)

- Explain these Git commands:
  - git checkout
  - git merge
  - git pull
- What is the purpose of .gitignore file? Provide three examples of what you might include in it. (3 marks)
- Describe the process of resolving a merge conflict. (3 marks)
- What is the difference between 'git merge' and 'git rebase'? (2 marks)
- Explain what a Pull Request is and its importance in collaborative development.
   (2 marks)

# **B. PRACTICAL SECTION (70 marks)**

#### HTML & CSS Practice (35 marks)

Create a responsive webpage that demonstrates your understanding of positioning, tables, and grid. Your page should include:

Navigation Section (10 marks)

html

Copy

- Create a fixed navigation bar at the top
- Include 4 navigation items
- On mobile, the navigation should become a hamburger menu
  - Grid Layout Section (15 marks)

html

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- Create a grid layout with 6 cards
- Each card should contain an image and text
- The grid should be 3 columns on desktop
- 2 columns on tablet
- 1 column on mobile

## Table Section (10 marks)

```
html
Copy
Create a responsive table showing:
- Student grades for 5 subjects
- Include thead, tbody
- Use colspan for header sections
- Make it scrollable on mobile
```

# Git & GitHub Practice (35 marks)

Complete the following practical tasks:

Repository Setup (10 marks)

```
bash
Copy
- Initialize a new Git repository
- Create a new remote repository on GitHub
- Connect your local repo to the remote
- Create a .gitignore file with appropriate rules
- Create a README.md with project description
```

## Branch Management (15 marks)

```
bash
Copy
- Create a feature branch called 'feature/add-login'
- Make 3 commits in this branch
- Create another branch 'feature/add-signup'
- Make 2 commits in this branch
- Merge 'feature/add-login' into main
- Rebase 'feature/add-signup' onto main
```

# Collaboration Simulation (10 marks)

```
bash
Copy
- Fork a given repository
- Clone your forked repository
- Create a new branch
- Make changes and commit them
- Create a Pull Request to the original repository
```

- Review and comment on a colleague's Pull Request

**Submission Guidelines:** 

Theory section should be submitted as a markdown file

Practical work should be pushed to a GitHub repository

• Include screenshots of your completed webpage

Submit all Git commands used in a separate file

**Grading Criteria:** 

• Code cleanliness and organization

Proper use of Git commits with meaningful messages

• Responsive design implementation

Proper implementation of positioning concepts

Correct usage of Git branching strategy

Documentation quality

Clone this (hehehehe):

Submit by git repo

Email: tatohmodest@gmail.com

