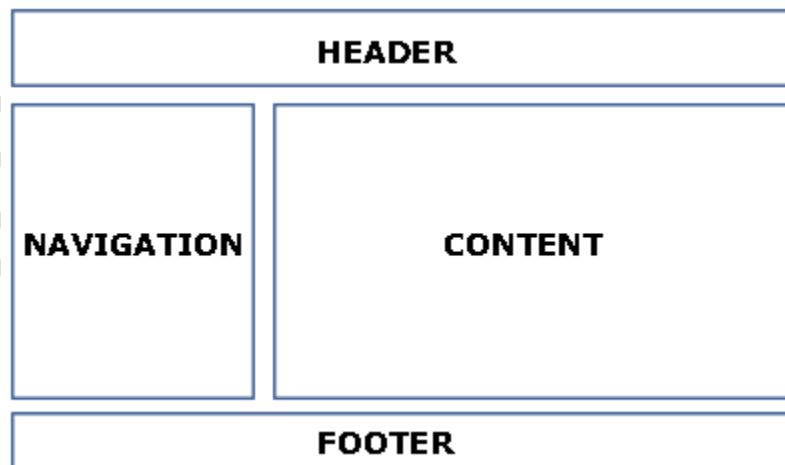


Part B

5. Illustrate the problems of using following two methods for negative and positive number representation
 - a. Sign Bit Magnitude Representation (SBM)
 - b. 1's Complement

6. Answer the following questions from SDLC process model
 - a. Two main disadvantages of SDLC approach
 - b. Two ways of conducting a feasibility study
 - c. What is done at system designing phase
 - d. Four implementation techniques

7. Use the HTML and CSS knowledge to answer the following questions
 - a. Write down and give examples for most common CSS selectors
 - b. Write down the HTML code with CSS to obtain the following web page layout



8. A large organization that does automobile repairs must keep track of its repair facilities or garages, the mechanics, and their qualifications in terms of the courses they have taken, the dates they took the courses, and the grade each earned for each course. Descriptions of these items are as follows:
- Garage: Garage's identification number and manager's name
 - Mechanic: Employee number and name
 - Course: Number, name, and duration (in weeks)
- a. Draw an ER diagram including all the entities and relevant key attributes and other attributes of each entity with their relationship cardinality.
- b. Explain the difference between candidate key and primary key fields.
- c. Identify and briefly explain the tasks of a database management system.