Tops. Assignment 1.

Module 1 st:- Overview of IT Industry.

Q.1 What is Software? what is software engineering.

→ Software :- Software is a set of instructions, data and programs used to operate computer & execute specific tasks:-

→ Software Engineering :- Software engineering is a systematic eng. approach to software development.

A software engineer is a person who applies principles of software engineering to design, develop, maintain, test & evaluate computer software.

Q.2 Types of Softwares.

1. System Software
   ↳ ex:- Windows, Mac OS, Android etc.

2. Application Software
   ↳ ex:- word, spreadsheet web browser, etc.

3. utility Software
   ↳ ex. Antivirus, security & optimisation program

Q2. SDLC :- Software Development Life Cycle

↳ SDLC PHASES :- 1. Planning & Analysis.
2. Designing
3. Developing
4. Testing
↑↓ 6. Maintanence
5. Deployment

1. Planning & Analysis → Find scope, solution, cost, efforts, Identify risks, benefits.
→ Focus on functional requirements, perform solution analysis, derive user needs.

2. Designing → Elaborate core specifications, features, functions, flows to meet req.

3. Developing → Actual developing begins here, following the designs. Code reviews, unit testing are done.

4. Testing → QA team tests the software for error/bugs & determines if the solution meets the bussiness goal. & then deployment.

6. Maintanence → After software passes all the stages it enters into.
↑↓ maintanence phase. the vendor here provides support for any. future upgrades & bug fixes.

5. Deployment → After successful testing, software gets deployed in production env. for user acceptance & approval.

A. DFD (Data Flow Diagram)

↳ It is a graphical or visual representation using a standardized set of symbols and notations to describe a operations through data movement

→ DFD for Flipkart.

Customer Management.

Online Shopping System. - Flipkart

Shopping Management.

Payment Management.

Order Management.

System user Management.

Login Management.
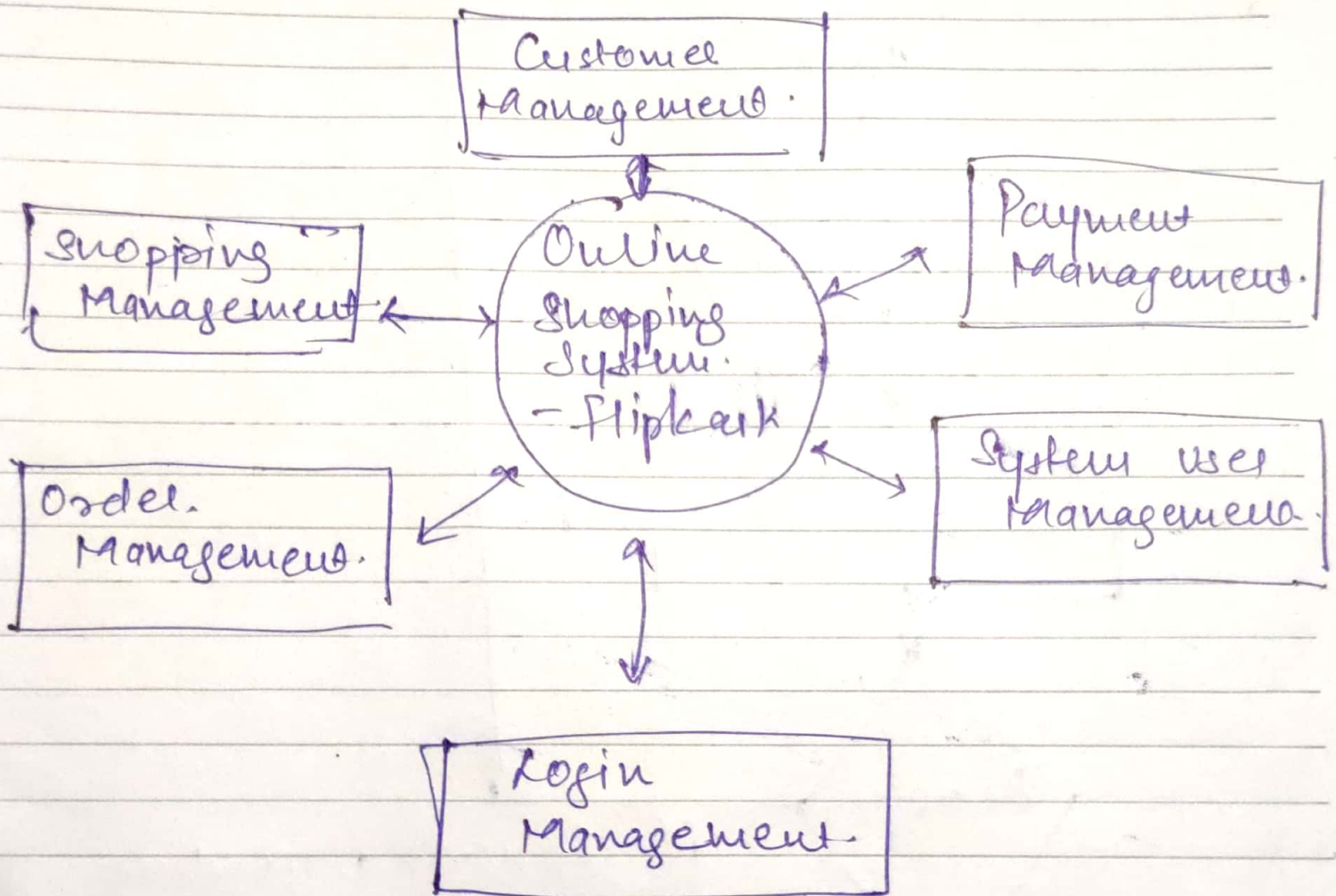
Q.5. Flowchart.

↳ It is a pictorial representation of Algorithm.

Flowchart for Addition of two no.
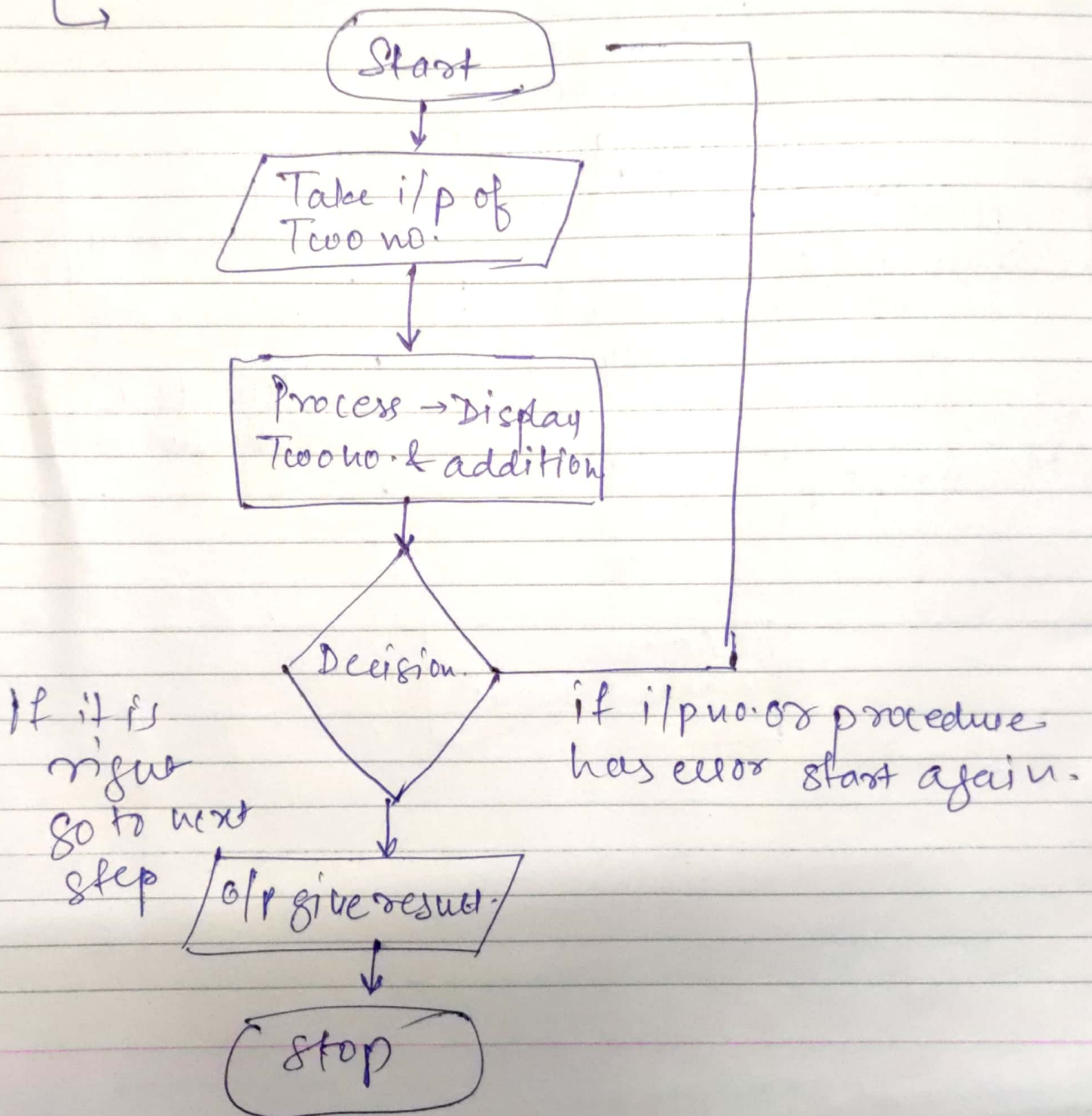
↳

```
                    ┌─────────────┐
                   ( Start        )─────────────────┐
                    └──────┬──────┘                 │
                           ↓                         │
                    ╱──────────────╱                 │
                   ╱ Take i/p of  ╱                  │
                  ╱  Two no.     ╱                   │
                 ╱──────────────╱                    │
                           ↓                          │
                    ┌────────────────────┐            │
                    │ Process → Display  │            │
                    │ Two no. & addition │            │
                    └─────────┬──────────┘            │
                              ↓                        │
                         ╱╲                            │
                        ╱  ╲                           │
                       ╱    ╲                          │
                      ╱Decision╲─────────────────────►┘
                       ╲      ╱
                        ╲    ╱
                         ╲  ╱
                          ╲╱
```

If it is
right
go to next
step

if i/p no. or procedure
has error start again.

```
          ╱────────────────╱
         ╱ o/p give result╱
        ╱────────────────╱
                 ↓
          ┌─────────────┐
         ( Stop         )
          └─────────────┘
```

Co.   Use Case diagram.

↳   Use case diagrams describe the high
    level functions & scope of system.
    these diagrams also identify the
    interactions between system & its
    actors.

↳ Use Case diagram of Billing system of paytm.

Login

Registeration

Login

Check bill

Provide service
no.

Pay Bill

Alert for
Payment

User.