```
public class fabulous _digit (int num, int
                                         leng){

   if (num < 10){

   return num;

   }
   else{

   return (num % 10 + fabulous_ digit (num / 10) );

   }

   System.out print (num);

   }
```

2
(a) Given A, D, £, f, B,G,H I, J,L
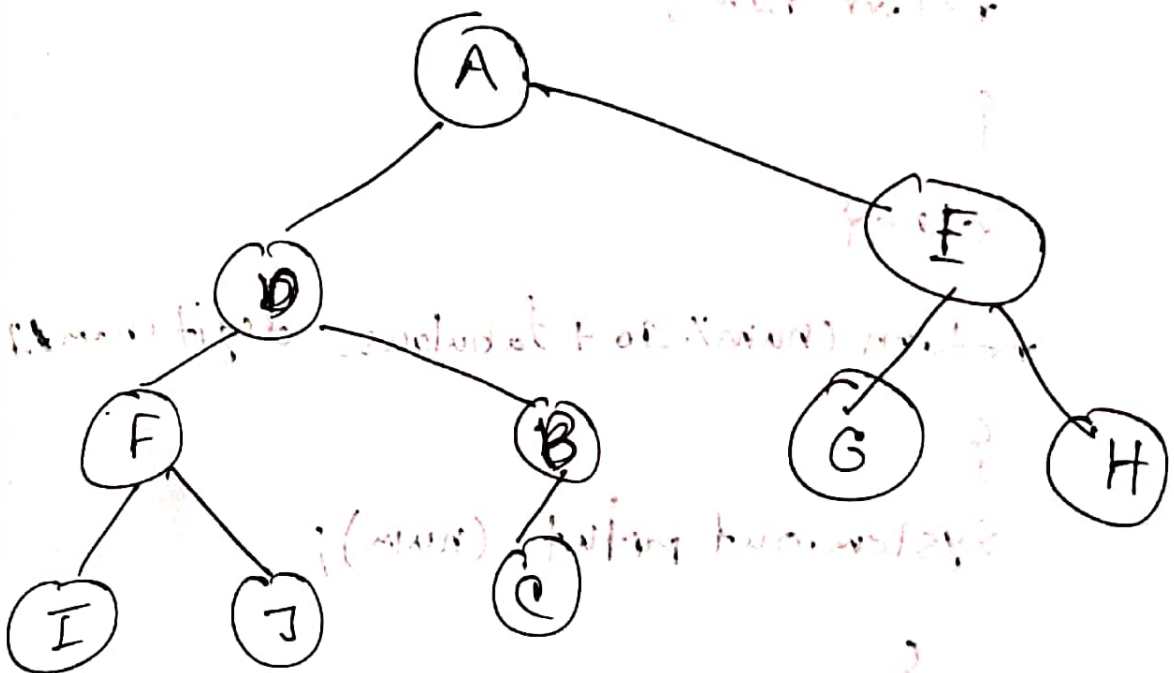
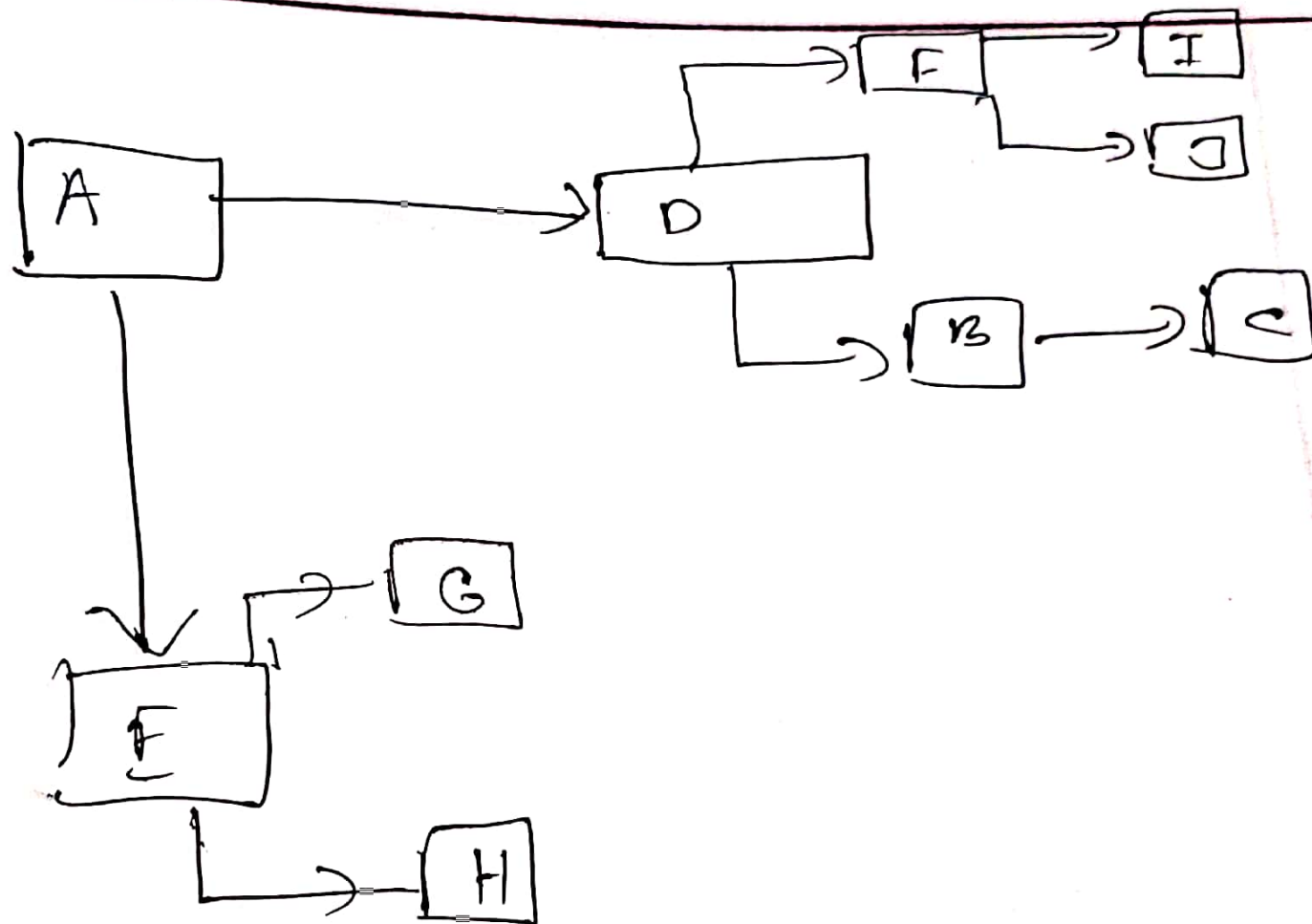(B) Pre Order :

A B F I J B C E G H

Inorder :

I F J D C B A G E H

2e

```
                                                              ┌───┐   ┌───┐
                                                          ──→ │ F │───│ I │
                                                              └───┘   └───┘
                                                              ┌───┐
                                                          ──→ │ J │
                                                              └───┘
┌─────────┐              ┌─────────┐
│    A    │─────────────→│    D    │
└─────────┘              └─────────┘
    │                         │
    │                         │     ┌─────┐      ┌─────┐
    │                      ──→│  B  │─────→│  C  │
    │                         └─────┘      └─────┘
    ↓
              ┌─────┐
          ──→ │  G  │
              └─────┘
┌─────────┐
│    E    │
└─────────┘
    │
    │      ┌─────┐
    └────→ │  H  │
           └─────┘
```

Adjacency list

3(b)

V □ → W → E ⊣

O □ → S → A → N →

L □ → S → W → G ⊣

K □ → A → E → W ⊣
S □ → O → L → G ⊣
W □ → V → L → E ⊣

A □ → O   K   N →

G □ → L → S ⊣

E □ → V → K → W → N ⊣

N □ → O → R → A → E ⊣

V
O
L
K
S
W
A
G
E
N

a)