Student Name ..... Total Marks
Class ..... Subject ..... Roll No. .....
School / College .....

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B2 - Batch

CSE, CN Lab
0-8 : Distance vector Routing

Code:

```
#include<iostream>
#define TOP 10
int n;

class network{
    char adj[TOP], adj_old[TOP];
    int table[TOP], table_old[TOP];

  public:
    network(){
      for(int i=0; i<TOP; i++){
          table_old[i] = table[i] = 99;
    }

    void duplicate(){
      for(int j=0; j<n; j++){
          adjOld[j] = adj[i];
          table_old[j] = table[j];
    }}

    int equal(){
      for(int i=0; i<n; i++){
          if(table_old[i] != table[i] ||
              adj[i] != adjOld[i]){
                  return 0;
    return 1;
}
```

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```
void read(){
    cout<< " Enter 1 if corresponding router is
            adjacent to router " <<(char)('A'+j)
        << "else enter 99";

for(int i=0; i<n; i++){
    if (i != j){
        cout <<(char)('A'+i) <<"Enter Matrix");

for(i=0; i<n; i++){
    if (i == j)
        table[j] = 0;
  else
    cin>> table[i];
    adj[i]=(char)('A'+i);
}}
cout
void display(){
    cout<<" \n Destination Router: ";
    for(int i=0; i<n; i++){
        cout<< (char)('A'+1) << "Outgoing line: ";

for(inti=0; i<n; i++){
        cout<< " Hop count: ";}
for(int j=0; i<n; i++){
        cout<< table[i];
}
```

```
void builder(int j){

    for(int i=0; i<n; i++){
        for(int k=0; i!=j)&&(k<n); k++){
            if(table_old[i]!=99){
                if(table[i]+r[j].table[k]
                    <table_new[k]){
                table_new[k]=table_new[i]
                    +r[j].table_new[k]
                adj[k]=(char)('A'+i);
    }}
    r[j];
}

void tablebuild(){
    int i=0, int j=0;
    while(i!=n){
        for(i=j; i<n; i++){
            r[i].copy();
            r[i].build(i);
        }
    for(i=0; i<n; i++){
        if(!r[i].equal()){
            j=i
        break;
    }}}
```

```
void main(){
    cout<<"Enter no of routers"<<"(M.OP)" ;
    cin>>n;
    for(int i=0; i<n; i++){
            r[i].input(i);
            table build();
    for(i=0; i<n; i++){
        cout<<" Router table entries for router "
            <<(char)('A'+i)<<" :- ";
        r[i].display();
        cout<<endl;
    }
    getch();
}
```