EXPERIMENT -7

9/3/17 IMPLEMENT STOP AND WAIT ARQ PROTOCOL

AIM: To implement noisy channel stop and wait automatic repeat request protocol

ALGORITHM: STOP and WAIT ARQ works by Sending a frame and waiting for acknowledgment When a frame is sent, sender starts a timer. Before timer goes off, if acknowledgement is not received, it means either the packet is lost or corrupted or acknowledgment is lost. If anyone occurs, frame is resent

CODE:

```
#include<stdio.h>
#include<conio.h>
void main()
{ int i,n, int ch;
  printf("Enter no of frames:");
    scanf("%d",&n);
  for(i=0;i<n;i++)
  {
    printf("\nframe %d sent from sender",i);
    printf("Is frame received(y/n)");
      scanf("%d",ch);
```

Scanned by CamScanner

```
while (ch==0)
{ printf("Frame %d sent again", i);
  printf("Is frame %d received
    uncorrupted ?", i);
  scanf("%d", &ch);
}
printf("Frame %d received by receiver", i);
printf("Ack/nak generated for frame %d sent", i);
printf("Is ack/nak not received or corrupted ?");
scanf("%d", &ch);

while (ch==1)
{ printf("Frame %d sent again", i);
  printf("Is frame %d received uncorrupted ?", i);
  scanf("%d", &ch);
  while (ch==0)
  { printf("Frame %d sent again", i);
    printf("Is frame %d received
      uncorrupted ?", i);
      scanf("%d", &ch);
  }
  printf("Frame %d received by receiver", i);
  printf("Ack for frame %d sent", i);
  printf("Is ack not received or corrupted ?");
  scanf("%d", &ch);
}
printf("Frame %d transmission successful");
}
```

O/P:

Enter no of frames: 4

Frame 0 sent from sender

Is frame received uncorrupted? 1

Frame 0 received by receiver

Acknowledgment from frame 0 sent

Is ack not received or timeout? 1

Frame 0 transmission successful

Frame 1 sent from sender

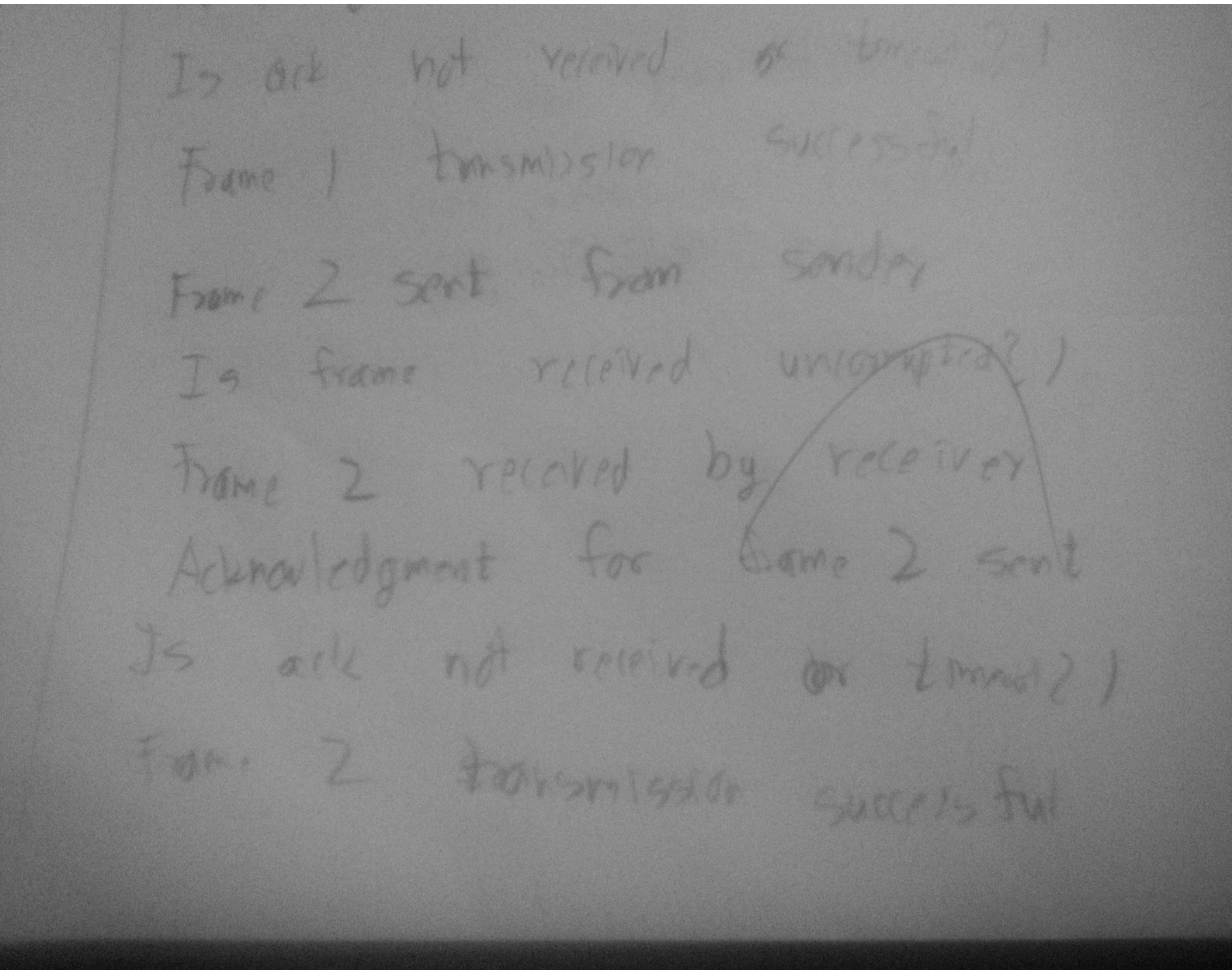
Is frame received uncorrupted? 1

Frame 1 received by receiver

Acknowledgment for frame 1 sent

Is ack not received or timeout? 1

Frame 1 transmission



Frame 3 sent from sender

Is frame received uncorrupted?

Frame 3 sent again

Is frame 3 received uncorrupted?

Frame 3 received by receiver

Acknowledgment for frame 3 sent

Is ack not received or timeout?

Frame 3 transmission successful