**ASSIGNMENT NO:-**

**PROGRAM NO:-**

%Program: SIMPSON’S 3/8TH RULE

%Name

%Roll No.:

%I/P: Function, lower limit, upper limit, n

function[]=PSJ\_SIMP3(fun,x0,xn,n)

h=(xn-x0)/n;

y0=feval(fun,x0);

yn=feval(fun,xn);

yr=0;

ys=0;

for i=1:1:n-1

yr=yr+feval(fun,x0+i\*h);

end

for j=3:3:n-1

ys=ys+feval(fun,x0+j\*h);

end

yt=yr-ys;

I=(3\*h/8)\*(y0+yn+2\*ys+3\*yt);

h

I

%PSJ\_SIMP3(@(x) exp(x)/x,1,2,8)

%h =0.1250

%I =3.0049