**ASSIGNMENT NO:-**

**PROGRAM NO:-**

%Program: SIMPSON’S 1/3RD RULE

%Name:

%Roll No.:

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

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

h=(xn-x0)/n;

y0=feval(fun,x0);

yn=feval(fun,xn);

yodd=0;

for i=1:2:n-1

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

end

yeven=0;

for j=2:2:n-1

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

end

I=(h/3)\*(y0+yn+2\*yeven+4\*yodd);

h

I

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

%h =

% 0.1250

%I =

% 3.0591