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
```