FAST – National University of Computer & Emerging Sciences

Computer Science Department

QUIZ-2 Section E

Name :	NUMERICAL COMPUTING	Date: 25/3/2020
Time Allowed: 40 min	Spring 2020	Max. Marks: 15

Solve All the question :

Q-1 Find an approximation to the integral $\int_0^1 \frac{1}{\sqrt{2\pi}} e^{-x^2/2}\, dx$, $n = 6$, use composite

I. Trapoizadal rule

II. Simpson's $\frac{1}{3}rd$ rule

III. Simpson's $\frac{3}{8}th$ rule

Q-2 Consider the following table of data:

x	0.2	0.4	0.6	0.8	1.0
$f(x)$	0.9798652	0.9177710	0.8080348	0.6386093	0.3843735

a. Use Eq. (4.7) to approximate $f'(0.2)$.

b. Use Eq. (4.7) to approximate $f'(1.0)$.

c. Use Eq. (4.6) to approximate $f'(0.6)$.

Use Five point formulas