

(091) Math 131:First Quiz Test-II (3.3-3.4-3.5-3.6): October 31. 2009

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Contents

Marks: 20; Time: 20 Minutes

NAME:.....

I.D.#:

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SERIAL# SECTION #: (Sec.05A)

Check ✓ or ○	Sc 05 11 am	Sc 06 01 pm	Sc 07 02 pm
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NOTE: SHOW ALL STEPS OF THE SOLUTION.

NO CREDIT FOR ANSWERS WITHOUT COMPLETE SOLUTION.

The questions are not in any order of difficulty at all.

Only the nonprogramable calculators are allowed.

Write the simplified answer of each question at the end of each question.

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Q.1.(Marks: 12). 167H23R9. If the supply and demand functions for a commodity are given by

$$p - q = 10$$

and

$$q(2p - 10) = 2100,$$

what is the equilibrium price (p) and what is the corresponding number of units (q) supplied and demanded?

Q.2. (Marks : 8). 197HR61. Maximum Profit.
Given

$$C(x) = 360 + 10x + 0.2x^2$$

and

$$R(x) = 50x - 0.2x^2,$$

find the level of production that gives maximum profit and find the maximum profit.

$$[\text{Profit} = P(x) = R(x) - C(x)].$$

$$x = \text{-----}$$

$$\text{Maximum Profit} = P(x) = \text{-----}$$

$$q =: \text{-----}$$

$$p =: \text{-----}$$