

(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). 167H23R10. If the supply and demand functions for a certain product are given by the equations

$$2p - q + 6 = 0$$

and

$$(p + q)(q + 10) = 3696,$$

respectively, find the price (p) and quantity (q) that give market equilibrium.

Q.2. (Marks : 8) . 168H23R26. The profit function for a certain firm making widgets is

$$P(x) = 88x - x^2 - 1200.$$

Find the number of units at which maximum profit is achieved, and find the maximum profit.

$$x = \underline{\hspace{2cm}}$$

$$\text{Maximum Profit} = P(x) = \underline{\hspace{2cm}}$$

$$q =: \underline{\hspace{2cm}}$$

$$p =: \underline{\hspace{2cm}}$$