King Fahd University of Petroleum and Minerals
Department of Math & Stat
Math 132, Sections 1, 2 (101)
Quiz 5(a)

Time: 20 minutes Marks: _____/9

Name: _____ Section #: _____

ID #: _____ Serial #: _____

1. For the function $f(x, y) = 3x^3 + y^2 - 9x + 4y$, find relative maximum, relative minimum and saddle point.

2. Sketch the surface $2x + 6y + 3z = 12$.

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Quiz 5(b)

Time: 20 minutes Marks: _____/9

Name: _____ Section #: _____

ID #: _____ Serial #: _____

1. Find trace of the surface $x^2 - y^2 + z^2 = 1$ in xy-plane.

2. For $f(x, y, z) = \sin(3x + yz)$, find $f_{xxyz}(0, 0, 0)$.

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Quiz 5(c)

Time: 20 minutes Marks: _____/9

Name: _____ Section #: _____

ID #: _____ Serial #: _____

1. Find local maximum, local minimum and saddle point for the function $f(x, y) = xy - y^2 - x^3$.

2. Find equation of a plane that is parallel to xz-plane and passes through $(7, -4, -2)$.