

King Saud University

Petroleum and Natural Gas Engineering

PGE 362: **Properties of Reservoir Fluids**

Due: **Thursday, January 4, 2016**

Homework One

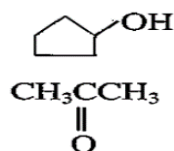
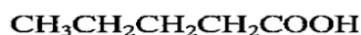
Q1

The table below gives the hydrocarbons which have been identified in the gasoline fraction of a crude oil. Identify the paraffins, naphthenes, and aromatics and draw the molecular structure of each.

Hydrocarbon
Cyclopentane
2,2-Dimethylbutane
2,3-Dimethylbutane
2-Methylpentane
3-Methylpentane
n-Hexane
Methylcyclopentane

Q2

Name the following compounds:



Q3

Draw structural formulas for:

- Pristane (2,6,10,14-tetramethylpentadecane)
- Phytane (2,6,10,14-tetramethylhexadecane)