Crude oil and fractional distillation

Select the correct answer from the text below each question:

1. Compounds that contain only carbon and hydrogen atoms are called…
   - carbohydrogens
   - hydrocarbons
   - carbides
   - carbohydrates

2. A _______ consists of two or more elements or compounds that are not chemically bonded together.
   - molecule
   - compound
   - nucleus
   - mixture

3. __________ is a mixture of hydrocarbons.
   - Methane
   - Brine
   - Crude oil
   - Water

4. Crude oil is a thick, smelly dark brown liquid. Before it can be used it must be separated into __________.
   - fractions
   - test tubes
   - hydrogen and carbon

5. Distillation can be used to separate a pure liquid from a mixture of liquids with different ____________.
   - masses
   - colours
   - boiling points
   - viscosities

6. Different hydrocarbons in crude oil have different boiling points, so they can be separated by fractional ____________.
   - separation
   - distillation
   - partitioning
   - osmosis

7. The fractionating column is _______ at the bottom and _______ at the top.
   - cool / hot
   - hot / cool
   - red / blue

8. Small hydrocarbons with only a few carbon atoms have _______ boiling points.
   - low
   - high

9. _______ hydrocarbons containing _______ carbon atoms have high boiling points.
   - Small / few
   - Large / many

10. _______ hydrocarbons travel further up the fractionating column before they condense because they have _______ boiling points.
    - Smaller / lower
    - Larger / higher

11. Substances with ____ boiling points condense near the bottom of the fractionating column.
    - low
    - high

12. Bigger hydrocarbon molecules are _______ viscous than small molecules.
    - less
    - more

13. Bigger hydrocarbon molecules are _______ volatile than small molecules.
    - less
    - more

14. Bigger hydrocarbon molecules are _______ flammable than small molecules.
    - less
    - more

15. Which process allows large hydrocarbons to be broken down into smaller hydrocarbons?
    - polymerisation
    - cracking
    - fractional distillation

Use the “Crude Oil: bounce quiz” at the eChalk website to help you answer these questions.
16. Cracking requires a _____ temperature and a _______.
   low / battery   low / catalyst   high / hammer   high / catalyst

17. Materials like crude oil and coal, which formed from living things many years ago, are called _________.
   fossil fuels   renewable fuels   dinosaur juice   green fuels

18. Which of the following is not a fossil fuel?
   natural gas   uranium-235   oil   coal

19. Fossil fuels take a long time to form and we are using them up more quickly than they form.
    Fossil fuels are _________ energy resources.
    renewable   green   non-renewable   carbon-neutral

20. Present estimates are that our supplies of crude oil will run out in about _______ years time
    unless we use it more efficiently.
    1   50   500   5000

The prevailing scientific opinion on climate change is that "most of the warming observed over the last 50 years
is attributable to human activities."

Carbon dioxide gas is a significant contributor to the 'greenhouse effect'.

Have a look at these two charts. Do you think there's a link?

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    - 50
    - 500
    - 5000

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