PT 13 Reservoir Performance

1. The assumption and limitation considered to calculate diffusivity equation of compressible fluid is _____
   A) Homogeneous and isotropic porous medium
   B) Rock and fluid properties independent of pressure
   C) both a & b
   D) none of the above
2. _____ equation describes the transient flow of a slightly compressible liquid through porous media.
   A) diffusivity b) transmissivity c) compressibility d) all of the above
3. Discharge through a capillary or capillary flow can be calculated using _____
   A) Charle's law b) Darcy's law c) Poiseulle's law d) Newton's Law
4. Field development plan (FDP) considers _____
   a) Objective of development b) Petroleum engineering data c) Cost and manpower estimates d) All of the above
5. _____ is not a conventional recovery technique
   A) Artificial lift b) water flooding c) thermal recovery d) Gas injection
6. Pulse test is a type of _____ test.
   A) DST b) porosity c) interference d) All of the above
7. _____ test requires measurement at an observation well.
   A) Pressure drawdown b) pressure buildup c) DST d) pulse
8. Horner's time is used for _____
   A) single, constant rate flow period followed by a shut-in
   B) single, differential flow rate period followed by a shut-in
   C) mutilple, differential flow rate period followed by a shut-in
   D) All of the above
9. _____ can be estimated using DST analysis.
   A) Average effective permeability b) Wellbore damage c) Radius of investigation d) All of the above
10. Absolute permeability is measured when _____
    A) the medium is completely saturated with a multiple fluid.
    B) the medium is completely saturated with a single fluid.
    C) the medium is not saturated with any fluid.
    D) none of the above

PT-14-Formation Evaluation II

Q.1) When the density-derived porosity is much less than the sonic porosity, the difference is due to the …….
a. Primary porosity b. Global porosity c. Fracture porosity d. None of the above

Q.2) The bulk density cross-plotted with normalized ……. values is an effective discriminator and can be used to identify the source potential in a variety of formations.
a. Sonic b. Resistivity c. Neutron d. Porosity

Q.3) The neutron log provides a continuous record of a formation's reaction to fast neutron bombardment. It is quoted in terms of *neutron porosity units,* which are related to a formation's
a. Hydrogen b. Oxygen c. Nitrogen d. None of the above

Q.4) Neutron porosity is real porosity ……. but other lithologies require conversion.
a. Sandstones b. Shales c. Evaporites d. Clean limestones

Q.5) When …… combined with the density log on compatible scales, it is one of the best subsurface lithology indicators.
a. Density logs b. Sonic logs c. Neutron logs d. Micrologs

Q.6) ……. are very efficient at neutron capture.
a. Iodine and Calcium b. Boron and Calcium c. Chlorine and Calcium d. Boron and Chlorine

Q.7) One neutron API unit is …….. of the difference between the instrument zero with no radiation and the log deflection opposite the limestone.
a. 1/10 b. 1/100 c. 1/1000 d.1/10000

Q.8) The depth of investigation of the neutron tool in a tight formation with a low hydrogen index is only between …….
a. 20-30cms b. 50-60cms c. 10-20cms d. 30-40cms

Q.9) The neutron log can be used to distinguish between …….. on the basis of water of crystallization.
a. Sandstones b. Shales c. Evaporites d. Clean limestones

Q.10) A cross-plot of density-log values against neutron-log values will show a straight-line relationship, a point on the line corresponding to a particular porosity. This is the …….. line.
a. Clean limestone b. Sandstone c. Shale d. None of the above

PT-15: Production Operations II

1.) Most imp data for designing fracture treatment is.
a. In-situ Stress
b. Formation permeability
c. Fluid loss characteristics
d. All of the above

2.) To get optimum fracture treatment we need to know the effect of.
a. Fracture Conductivity
b. Fracture Length
c. Both a & b
d. None of the above

3.) Selection of Fracking fluid is dependent on.
a. Reservoir Temperature
b. Reservoir Pressure
c. Water sensitivity
d. All of the above

4.) Scales are mostly deposited by.
a. Brine
b. Crude Oil
c. Gas
d. All of the above

5.) Scale build up is mostly problematic because.
a. It can cause a Kick
b. It can cause a Blowout
c. It reduces Production
d. All of the above

6.) Scale deposition is based on.
a. Pressure change
b. Temperature change
c. PH
d. All of the above

7.) Most difficult environment for corrosion control is.
a. Low temperature
b. High temperature
c. Low pressure
d. High pressure

8.) Corrosion Control is a _____process in the oil field
a. Continuous
b. Rare
c. Expensive
d. Easy

9.) Corrosion can occur because of.
a. Co_2
b. H_2S
c. Oxygen
d. All of the above

10.) Chemicals used to stop corrosion are called.
a. Stoppers
b. Reducers
c. Inhibitors
d. Killers

PT-16: Mud logging and Engineering

1. Formation evaluation at any zone is based on.
a. Rock cuttings
b. LWD logs
c. Both a&b
d. None of the above

2. Which parameters of Gas are monitored by the logging team?
a. Gas components
b. Gas amount
c. Gas percentage
d. All of the above

3. Gas Hydrates are found in.
a. Permafrost
b. Desert
c. Forests
d. Sea Bed

4. Coal gas is also known as.
a. Black Gas
b. Pseudo Gas
c. Coal Bed methane
d. Flare gas

5. Which equipment is used to remove the gas from the drilling Mud?
a. Gas remover
b. Gas Scrubber
c. Gas rotator
d. De-gasser

6. H_2S gas on the field is the most.
a. Useful
b. Harmful
c. Expensive
d. Collected

7. Burning of the produced gas at the site is known as.
a . Flaring
b. Glaring
c. Firing
d. None of the above

8. The weight exerted by the mud column to the formation is known as.
a. Formation Pressure
b. Mud Pressure
c. Hydrostatic Pressure
d. Oil Pressure

9. D-exponent is the measure of.
a. Density of shale
b. Drill-ability of shale
c. Decomposition of shale
d. None of the above

10. Which of the following are indicators of a kick?
a. Increase in Flow rate
b. Gain in volume
c. Increase in Gas
d. All of the above