Topic: WeeklyTest-I

Time Allowed: 45 Min   Maximum Marks:25

Read the following instructions carefully.

01. (i) Question Numbers 01 to 05 (05 questions) will carry one mark each.

   (ii) Question Numbers 06 to 15 (10 questions) will carry two marks each.

02.**Wrong answers carry 33% negative marks. In Q. 01 to Q.05, 1/3 mark will be deducted for each wrong answer and in Q. 06 to Q.15,2/3 mark will be deducted for each wrong answer. However, there is no negative marking for numerical answer Type questions.**

GROUP – I

Each question carries ONE mark

$$5 \times 1 = 5$$

1. What is the property that does not change from reservoir to laboratory?
(A) Porosity
(B) J function
(C) Contact angle
(D) Such property does not exist

2. Which of the following gas storage mechanism does Coal Bed Methane Exercise?
(A) Absorption
(B) Adsorption
(C) Compression
(D) None of the above

3. Which of the following Thermal recovery process is used for deep reservoirs ?
(A) Steam Drive
(B) Steam Stimulation
(C) Insitu Combustion
(D) Hot water Flooding

4. What type of Extinguishing agent should we use when we encounter Fire of this type of sign?

(A) Water
(B) Foam Spray
(C) Wet Chemical
(D) Dry Powder

5. A down hole tool that is used to impart a heavy blow or impact load to a down hole tool assembly. Commonly used in fishing operations to free stuck objects.

(A) Drill Collar
(B) Reamers
(C) Drilling Jars
(D) Stabilizers

GROUP – II

Each question carries TWO mark

$$10x2 = 20$$

1. Choose the Correct option?

A) Annular Preventer	1) Cuts the pipe
B) Shear Ram	2) Closes in open hole
C) Blind Ram	3) Closes on any object
D) Pipe Ram	4) Closes on drill pipe excluding tool joints

(A) A-3 B-1 C-2 D-4
(B) A-3 B-1 C-4 D-2
(C) A-4 B-1 C-2 D-3
(D) A-3 B-2 C-1 D-4

2. Choose the Correct option?

A) Spontaneous Potential	1) μsec/ft
B) Density log	2) seimien
C) Transit time	3) milli volt
D) conductivity	4) gm/cc

(A) A-4 B-3 C-2 D-1
(B) A-3 B-4 C-2 D-1
(C) A-4 B-3 C-1 D-2
(D) A-3 B-4 C-1 D-2

3. The equipment that is used to connect the floating drilling/production facility with subsea wells and are critical to safe field operations is ?
(A) Mooring lines
(B) Thrusters
(C) Riser
(D) Tethers

4. Select the correct sequence of torque transmission
(A) Rotarytable-Masterbushing-Kellybushing-Drillpipe -Kelly
(B) Rotary table-Master bushing-Kelly bushing-Kelly-Drill pipe
(C) Rotary table-Kelly bushing -Master bushing -Kelly-Drill pipe
(D) Rotarytable-Masterbushing-Kellybushing-Drillpipe

5. A well is to be acidized by using 5inch,19.5ppf grade G drill pipe and a botomhole packer is set at 13,000ft.a 15%HCL of density 67PCF will be pumped at a surface pressure of 8000psi.the drill pipe casing annulus is filled with 90PCF mud. Determine the Worst burst load on the drill pipe in psi?

6. Which of the following is **NOT** one of the Principles of Stratigraphy?

(A) Law of Super position
(B) Principle of Original horizontality
(C) Principle of Sedimentology
(D) Principle of Original lateral continuity

7. Calculate the amount of Water Required per sack in gallons to provide a slurry of 13ppg .the slurry contains cement G, water,8%bentonite. Specific gravity of cement G is 3.143 and specific gravity of bentonite is 2.644.density of water is 8.33ppg.

Note: 1 sack of cement G contains 94 lbs of it

8. Consider a sandstone formation has a resistivity of 80 Ωm when the formation is 100% saturated with Brine which has a resistivity of 0.8 Ωm .find the resistivity of the sandstone formation in Ωm. when it is 100% saturated with coffee which has a resistivity of 1.5 Ωm.

9. A well is producing from a saturated reservoir with an average reservoir pressure of 2500psia.stabilized production test data indicates that the stabilized rate and well bore pressure are 350 STB/day, and 2000psia respectively. Calculate oil flow in STB/day rate at 1850 psia .use vogels equation.

10. Assume a cubical reservoir under active water drive with oil production 1000bbl/day the flow can be approximated as linear flow whose water front has an average saturation of 55% the cross sectional area is the product of the 1320ft width and true formation thickness of 20ft for a porosity of 0.25 with the length between production and injection well is 750 ft and the connate water saturation before flooding is 24%. Calculate the breakthrough time in days of a water flood.