

COMPLETION EQUIPMENT

EXERCISE COMPLETION EQUIPMENT 1

1. What are two most common types of Down-Hole Safety Valves [DHSVs] which are available for a well completion? (TWO ANSWERS)
 - a) Permanent
 - b) Tubing Retrievable
 - c) Temporary
 - d) Coiled Tubing Retrievable
 - e) Wireline Retrievable

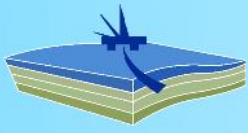
2. What are main functions of a Polished Bore Receptacle? (TWO ANSWERS)
 - a) It supports the weight of the completion tubing
 - b) It allows tubing to be pulled up from the packer
 - c) It compensates for contraction and/or elongation of tubing

3. When using a Polished Bore Receptacle and the tubing is not anchored, how is the tubing length affected when a well is started up for production?
 - a) The tubing string will become longer
 - b) The tubing string will become shorter

4. When using a Polished Bore Receptacle and the tubing is not anchored, how is the tubing length affected when a well is stimulated or started up for water injection?
 - a) The tubing string will become longer
 - b) The tubing string will become shorter

5. What are the main functions of a Tubing Hanger? [TWO ANSWERS]
 - a) It suspends the weight of the completion string
 - b) It allows communication from inside the tubing to the casing/tubing annulus through the control line ports
 - c) It isolates the completion from the casing/tubing annulus
 - d) It is the place where the well can be shut-in with control line pressure





6. What is the main purpose of Sliding Sleeve [SSD]?
 - a) To close off the tubing bore
 - b) To provide a communication path between the annulus and tubing and the other way around
 - c) To close off the annulus

7. Does a Down-Hole Safety Valve [DHSV] prevent the flow in both directions when it is closed?
 - a) No
 - b) Yes

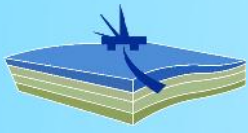
8. When a Gas Lift Mandrel is installed, but not in use, what equipment must be installed to achieve a positive closure (i.e to prevent flow from both directions)?
 - a) Gate Valve
 - b) Chemical Injection Valve
 - c) Dummy Valve
 - d) Circulating Valve
 - e) Gas Lift Valve

9. Which of the following statements show the main purposes of having a Side Pocket Mandrel in the completion string? (TWO ANSWERS)
 - a) To provide a profile for landing some flow control devices
 - b) To provide a communication path between tubing and the casing annulus
 - c) To plug off the bore of the tubing
 - d) To act as a receptacle for gas lift, chemical injection, circulating or dummy valves
 - e) To act as a receptacle for a Wireline Retrievable DHSV

10. We want to use a surface controlled Wireline Retrievable DHSV. How do we establish hydraulic communication with the control line once the DHSV has been set and locked inside the Tubing Retrievable DHSV profile?
 - a) Through a hydraulic stab-in feature.
 - b) Between two packing seal stacks once the lock mandrel is set.
 - c) Through the SSD when the sleeve is opened.

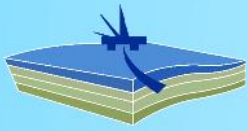
11. Which of the following statements are true about Xmas tree? (TWO ANSWERS)
 - a) When we close the valves, it is necessary to close them as tightly as possible.
 - b) All valves on the Xmas Tree take 25 turns to open and close
 - c) After closing a manual valve, it should be backed out part of a turn.
 - d) Counting turns while operating the valve can indicate if there is an obstruction across the valve.
 - e) There is an indicator which shows how many turns remain to fully close the valve.





12. Which of the following statements are true with regards to the Circulating Devices in a well killing operation? (TWO ANSWERS)
- a) Check that the circulating device is fully opened
 - b) Check that the catcher is installed below the SSD
 - c) Check that the pressure rating is adequate for the job
 - d) Check that the pressure is equalized before opening
 - e) Check that the tail pipe plug is in place before opening the sleeve
13. To prevent the formation fluids or gases from flowing, how are Down-Hole Safety Valve [DHSV] designed?
- a) To hold pressure from below
 - b) To hold pressure from below and above
 - c) To hold pressure from above
14. How can we set a Hydraulic Set Packer? (TWO ANSWERS)
- a) Apply pressure from the tubing side
 - b) Apply pressure from the annulus side
 - c) Set a positive plug below the packer





WORKBOOK COMPLETION EQUIPMENT – ANSWER KEYS

| EXERCISE COMPLETION EQUIPMENT-1 | |
|---------------------------------|------|
| 1. | b, e |
| 2. | b, c |
| 3. | a |
| 4. | b |
| 5. | a, c |
| 6. | b |
| 7. | a |
| 8. | c |
| 9. | b, d |
| 10. | b |
| 11. | c, d |
| 12. | a, d |
| 13. | a |
| 14. | a, c |

| EXERCISE COMPLETION EQUIPMENT-2 | |
|---------------------------------|-------------|
| 1. | b, d |
| 2. | a |
| 3. | c |
| 4. | b |
| 5. | 224 minutes |
| 6. | c |
| 7. | a, e |
| 8. | 2500 psi |
| 9. | b |
| 10. | c |
| 11. | d |
| 12. | b |
| 13. | d |
| 14. | a, b |
| 15. | d, e |

