



قائمة الاسئلة

امتحان نهاية الفصل الدراسي الثاني - للعام الجامعي 1446 هـ - كلية البترول والموارد الطبيعية :: المعدات السطحية - (454 PNGE) - المستوى م / علي عباس

1) In well site Demulsifier needs to be injected in order to control high water cut in well stream



Choose the right answer T (true) or F (false) for each question

1)  TRUE.

2)  FALSE.

2) As long as there is a differential pressure across the SCSSV it will not open, regardless of the pressure on the control line.

1)  TRUE.

2)  FALSE.

3) Offshore drilling typically involves more complex and expensive equipment, as well as additional safety and environmental challenges compared to onshore drilling.

1)  TRUE.

2)  FALSE.

4) The less difference in weight of fluid compounds the better separation.

1)  TRUE.

2)  FALSE.

5) In Christmas tree, the swap valve used to open up and shut off the flow of crude oil to the production line

1)  TRUE.

2)  FALSE.

6) Light crude oil needs longer retention time in the separator, than heavy crude oil.

1)  TRUE.

2)  FALSE.

7) Chemicals MSDS gives a clear instruction about chemical handling and usage.

1)  TRUE.

2)  FALSE.

8) Pipeline pigging is the process of using a pig to inspect or clean a pipeline.

1)  TRUE.

2)  FALSE.

9) Needle valves are used in instrument systems for throttling of small volumes.

1)  TRUE.

2)  FALSE.

10) Gasoline is a mixture of volatile, flammable liquid hydrocarbons that have 13 to 16 carbon atoms in their molecular structure

1)  TRUE.

2)  FALSE.

11) The purpose of surface production Facilities is to :



Choose the best option

1)  - separate the well stream into three "phases" (oil, gas, and water)

2)  - To remove any impurities from well stream

3)  - To dispose produced water into injection wells

4)  All of the above

12) Gas-liquid separation is better when all below factors exist , except:

1)  - minimum turbulence movement in the separator





- 2) - Great gas-liquid weight difference
  - 3)  sand accumulation control
  - 4) - More residence time
- 13) Over-dosage of chemicals injected into well stream :
- 1) - The chemical will perform effectively.
  - 2)  may cause serious damage to the equipment and form deposits on valves etc.
  - 3) - may cause reduction in well stream flow rate
  - 4) - The product will be on standard specification
- 14) Conditions favoring hydrate formation is:
- 1) - High temperature and low pressure
  - 2) - High temperature and high pressure,
  - 3)  Low temperature and high pressure
  - 4) - High temperature and low gas velocity
- 15) In oil production fields the gathering stations are used to:
- 1) - Carry out wells maintenance if necessary
  - 2)  receive wells fluids from various well sites and direct it to main treatment station
  - 3) - both a & b
  - 4) - None of the above
- 16) The separator pressure is maintained by :
- 1) - Controlling the fluid entering the separator
  - 2)  controlling the amount of gas leaving the separator,
  - 3) - controlling the amount of liquid leaving the separator
  - 4) - all of the above
- 17) For most two-phase separator applications, retention times
- 1) - range between 30 seconds and 4 minutes
  - 2) - are dependent upon API gravity
  - 3) - are lower for horizontal separators
  - 4)  Both a) and b)
- 18) Which of the following criteria are important when sizing a three-phase separator?
- 1) - gas capacity
  - 2) - oil and water retention times
  - 3) - settling water droplets from the oil phase
  - 4)  all of the above
- 19) The indirect-fired heater differs from the direct-fired heater in that the indirect-fired heater
- 1) - is less expensive
  - 2) - is more expensive
  - 3)  has a process flow coil
  - 4) - None of the above
  - 5) -
- 20) \_\_\_\_\_ use centrifugal force to remove oil droplets from oily water.
- 1) - Skim tanks
  - 2)  Hydrocyclons
  - 3) - Heater-treater
  - 4) - wash tank with an internal gas boot
- 21) In \_\_\_\_\_ pumps energy is added to the fluid continuously through the rotary motion of the blades.
- 1) - Reciprocating
  - 2)  Dynamic





- 3) - Rotary  
4) - All of the above
- 22) \_\_\_\_\_ pumps are suitable for viscous applications
- 1)  Positive displacement  
2) - Centrifugal  
3) - Both a) and b)  
4) - None of the above
- 23) In order to reduce Bacterial growth in produced water that may cause H<sub>2</sub>S formation, \_\_\_\_\_ needs to be injected into produced water tanks regularly or monthly
- 1) - Demulsifier  
2) - Scale Inhibitor  
3) - Corrosion Inhibitor  
4)  Biocide
- 24) Multi-stage centrifugal pumps have multiple impellers in order to:
- 1)  Achieve a higher discharge pressure  
2) - Reduce power energy consumed by motor  
3) - Increase pumping flowrate  
4) - All of the above
- 25) The valve used to control flow where there is a large pressure drop is:
- 1) - Ball Valve  
2) - Gate valve  
3) - Check valve  
4)  Choke valve

