



قائمة الاسئلة

تحليل الاحواض الرسوبية - (444 GEOS) - المستوى الرابع - قسم جيولوجيا البترول - الكل - كلية البترول والموارد الطبيعية - الفترة الثانية - درجة الا

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- 1) Ocean-ocean boundaries consist of an ocean trench with an associated continental magmatic arc with intense plutonic activity.
  - 1)  TRUE.
  - 2)  FALSE.
- 2) Several different mechanisms can produce subsidence, but they can be grouped into
  - 1)  two main categories
  - 2)  three main categories
  - 3)  one main categories
  - 4)  six main categories
- 3) is a useful concept for classifying basins.
  - 1)  plate tectonic
  - 2)  geosyncline
  - 3)  folding
  - 4)  no answer
- 4) failed rifts occur at high angle to continental margin filled with non-marine to deep marine sediments.
  - 1)  no Answer
  - 2)  Acolacogen
  - 3)  Aluacogens
  - 4)  Aulacogens
- 5) The exercise of partitioning the subsidence due to tectonics and that due to sediment loading is termed
  - 1)  tectonic subsidence
  - 2)  total subsidence
  - 3)  decompacted subsidence
  - 4)  compacted subsidence
- 6) a graphical representation of the vertical movement of a stratigraphic horizon in a sedimentary basin as an indicator of subsidence and uplift history in the basin since the horizon was deposited.
  - 1)  geohistory analysis
  - 2)  geohistory curves
  - 3)  backstripping
  - 4)  basin analysis
- 7) what remains after the effects of sea-level and sediments are removed
  - 1)  tectonic subsidence
  - 2)  total subsidence
  - 3)  thermal subsidence
  - 4)  compacted subsidence
- 8) the background subsidence caused by stretching and thermal cooling of the lithosphere.
  - 1)  tectonic subsidence
  - 2)  total subsidence
  - 3)  thermal subsidence
  - 4)  compacted subsidence
- 9) is rigid enough to act as a coherent plate.
  - 1)  lithosphere
  - 2)  asthenospher
  - 3)  continental crust
  - 4)  oceanic crust





- 10) are regions of prolonged subsidence of the Earth's surface
- 1) - mountain
  - 2)  basins
  - 3) - subsidence
  - 4) - syncline
- 11) the integrated study of sedimentary basins as geodynamic entities
- 1) - provenance
  - 2)  basin analysis
  - 3) - basin subsidence
  - 4) - sequence stratigraphy
- 12) There are three main compositional units of the earth interior
- 1)  the crust, mantle, and core
  - 2) - lithosphere and asthenosphere
  - 3) - lithosphere, mantle and core
  - 4) - lithosphere, asthenosphere and core
- 13) The main rheological boundary is
- 1) - between crust, mantle, and core
  - 2)  between the lithosphere and the asthenosphere
  - 3) - between the lithosphere and the mantle
  - 4) - between the crust and the mantle
- 14) Ocean--continent boundaries are characterized by
- 1) - ocean trench
  - 2)  subduction zone
  - 3) - strike slip faults
  - 4) - MOR
- 15) Isostatic movements in the earth are due to
- 1) - the more dense continents floating on a less dense mantle
  - 2)  the less dense continents floating on a more dense mantle
  - 3) - sea level change
  - 4) - no answer
- 16) Back-arc basins are associated with
- 1) - conservative plate boundaries
  - 2) - convergent plate boundaries
  - 3)  divergent plate boundaries
  - 4) - bothe convergent and divergent
- 17) The Arrhenius equation suggests that
- 1) - reaction rates should decrease exponentially with temperature
  - 2) - reaction rates should equal temperature
  - 3)  reaction rates should increase exponentially with temperature
  - 4) - no answer
- 18) A low area in the Earth's crust, of tectonic origin, in which sediments accumulate.
- 1)  sedimentary basin
  - 2) - subsided region
  - 3) - geosyncline
  - 4) - No Answer
- 19) Key factors for basin evolution include
- 1) - Nature of sedimentary fill in space and time
  - 2) - Basin configuration
  - 3) - Position in the geotectonic framework





- 4)  all answers are correct
- 20) large, ovate downwarps within stable cratonic shields
- 1)  interior basin
- 2)  foreland basin
- 3)  backarc basin
- 4)  Aulacogens
- 21) narrow, fault-bounded valleys of various dimensions
- 1)  passive margin basin
- 2)  foreland basin
- 3)  rift basin
- 4)  Aulacogens
- 22) All basins contain more than one rock (sediments or facies)
- 1)  TRUE.
- 2)  FALSE.
- 23) All sedimentary basins formed and ended by tectonic force and isostasy processes
- 1)  TRUE.
- 2)  FALSE.
- 24) Study of sedimentary basin is necessary for studying of tectonics, paleoclimate and paleoenvironments of an area in the geologic history.
- 1)  TRUE.
- 2)  FALSE.
- 25) The type of basin is indicated according to nature of the
- 1)  underlying crusts
- 2)  the type of past plates movement involved during basin formation
- 3)  Both of them
- 4)  No Answer
- 26) small pull-apart basins in response to lateral fault movement
- 1)  passive margin basin
- 2)  Strike-Slip basins
- 3)  rift basin
- 4)  ocean basin
- 27) Convergent boundaries occur where the adjoining plates are moving parallel to each other and are therefore dominated by strike-slip or transform faults.
- 1)  TRUE.
- 2)  FALSE.
- 28) Sedimentary basins are regions of prolonged subsidence and uplift of the Earth's surface.
- 1)  TRUE.
- 2)  FALSE.
- 29) The driving mechanisms of subsidence are principally related to processes within the relatively rigid, cooled thermal boundary layer of the Earth known as the asthenosphere.
- 1)  TRUE.
- 2)  FALSE.
- 30) The lithosphere is composed of a number of plates which are in motion with respect to each other.
- 1)  TRUE.
- 2)  FALSE.
- 31) There are three main compositional units; the crust, mantle, and core
- 1)  TRUE.
- 2)  FALSE.
- 32) The most important compositional boundary is between crust, mantle, and core.





- 1)  TRUE.  
2)  FALSE.
- 33) The main rheological boundary is between the lithosphere and the asthenosphere.  
1)  TRUE.  
2)  FALSE.
- 34) P wave velocities decrease markedly beneath the Moho, but decrease in a low velocity zone representing the weak asthenosphere.  
1)  TRUE.  
2)  FALSE.
- 35) The asthenosphere is rigid enough to act as a coherent plate.  
1)  TRUE.  
2)  FALSE.
- 36) The mechanical or rheological divisions of the interior of the Earth do not necessarily match the compositional zones.  
1)  TRUE.  
2)  FALSE.
- 37) The vertical motions (subsidence, uplift) in sedimentary basins are principally a response to the deformation of the uppermost rheological zone of the Earth.  
1)  TRUE.  
2)  FALSE.
- 38) The lithosphere is weaker than the asthenosphere and is able to undergo deformation relatively easily by flow.  
1)  TRUE.  
2)  FALSE.
- 39) Ocean--continent boundaries are characterized by a well-developed ocean trench and volcanic island arcs.  
1)  TRUE.  
2)  FALSE.
- 40) Oceanic lithosphere may override continental lithosphere attached to subducting oceanic lithosphere, this is more common  
1)  TRUE.  
2)  FALSE.
- 41) Basin analysts use the same methods to study modern and ancient basins.  
1)  TRUE.  
2)  FALSE.
- 42) According to the principle of isostasy the Earth's crust is floating in equilibrium with the more dense mantle below  
1)  TRUE.  
2)  FALSE.
- 43) is the most important control on sedimentation  
1)  Tectonics  
2)  Climate  
3)  Both of them  
4)  No Answer
- 44) Which of these indicates that the crust is being stretched or extended?  
1)  anticlines  
2)  normal faults  
3)  reverse faults  
4)  synclines
- 45) The important effects of tectonics on sedimentation, direct or indirect, include the following except:  
1)  nature of sediment





- 2) - rate of sediment supply
  - 3) - depositional environment
  - 4) - nature of source rocks
  - 5)  tectonic setting
- 46) the important criteria that could be used to classify sedimentary basins
- 1) - nature of fill
  - 2) - geometry paleogeography
  - 3) - tectonic setting
  - 4)  All of them
  - 5) - No Answer
- 47) Nowadays sedimentary basins are classified by tectonic (and, specifically, plate-tectonic) setting
- 1)  TRUE.
  - 2) - FALSE.
- 48) Volcanoes are least likely to be associated with:
- 1) - subduction zones
  - 2) - "hot spots"
  - 3)  transform faults
  - 4) - mid-ocean ridges
- 49) The main reservoirs in block S1 are (Alif Sand) and (Lam Sand).
- 1)  TRUE.
  - 2) - FALSE.
- 50) The Paleozoic basins include the following except one
- 1) - Southern flanks of the Rub' Al-Khali basin
  - 2) - the San'a basin
  - 3) - the southern offshore Suqatra (island) basin
  - 4)  No Answer

