



قائمة الاسئلة

امتحان نهاية الفصل الدراسي الثاني - للعام الجامعي 1446 هـ - كلية البترول والموارد الطبيعية :: الكربونات والمنتخرات - (475 GEOS) -
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- 1) Mudstones are composed of at least carbonate mud
 - 1) + 90%
 - 2) - 10%
 - 3) - 5%
- 2) Carbonate mud originates through :
 - 1) - Algal disaggregation.
 - 2) - Mechanical and biological erosion
 - 3) - Direct precipitation from sea water
 - 4) + all of the above
- 3) Five major types of carbonate platforms having particular pattern of facies and facies succession are recognized :
 - 1) + Ramp.
 - 2) - Horizontal zonatio .
 - 3) - Carbonate platform
- 4) The type of carbonate platform developed is determined largely by :
 - 1) - Tectonics.
 - 2) - Relative sea-level change.
 - 3) + All answers are true.
- 5) Formed by the precipitation of calcium carbonate within caves :
 - 1) - pedogenic carbonates.
 - 2) - palustrine carbonares.
 - 3) + cave carbonates, karst.
- 6) Sedimentation of fine-grained, wind-born sand-sized carbonate material:
 - 1) - Eolian carbonate.
 - 2) - Glacial carbonate.
 - 3) + Cave carbonate, karst
- 7) Typically, diagenesis includes
 - 1) - compaction and progressive pore occlusion
 - 2) - dissolution and cementation
 - 3) - transformation of metastable carbonates
 - 4) - dolomitization
 - 5) + all of the above
- 8) Two main diagenetic environments can be distinguished in marine realm:
 - 1) + Neritic / Slope and basin
 - 2) - Slope and basin
 - 3) - None of the above
- 9) Typical marine phreatic cements
 - 1) - aragonitic crusts and botryoidal cements
 - 2) - crusts of radiaxial fibrous cements
 - 3) - peloidal cement made of high magnesium calcite
 - 4) + all of the above
- 10) Mg-calcite cement types
 - 1) - micrite-size cement crystals
 - 2) - fibrous cements
 - 3) - blocky or equant crystals
 - 4) + all of the above



- 11) Most of ancient carbonates, regardless their original mineralogy are now
- 1) low-Mg calcite
 - 2) high-Mg calcite
 - 3) low calcite
- 12) Marine vadose cements are
- 1) pendant and meniscus cements,
 - 2) aragonitic
 - 3) micritic
 - 4) all of the above
 - 5) None of the above
- 13) Travertine, calcareous tufa, careous sinter
- 1) Lacustrine carbonates
 - 2) Freshwater carbonate
 - 3) Fluvial carbonate
- 14) Total dissolved salts (salinity) in seawater
- 1) 35000 ppm
 - 2) 4.7 ppm
 - 3) 207 ppm
- 15) Aragonite components are
- 1) completely dissolved
 - 2) Calcitization
 - 3) all of the above
 - 4) None of the above
- 16) Dolostone type and their origins
- 1) Synsedimentary
 - 2) Early & late diagenetic
 - 3) Late diagenetic
 - 4) all of the above
- 17) Dolomitization can be induced by:
- 1) Bryne reflux
 - 2) Hydrothermal circulation
 - 3) all of the above
- 18) Refers to the space within the grains
- 1) Intraparticle pores
 - 2) Interparticle pores
 - 3) Intercrystalline and intracrystalline porosity
- 19) Develops following selctive dissolution of some of the components of a carbonate rock/sediment.
- 1) Moldic porosity
 - 2) Fenestral porosity
 - 3) Shelter porosity
- 20) The sulfate may be derived from
- 1) the decomposition of rocks that contain sulates
 - 2) from the leaching of buried beds of sulfates
 - 3) all of the above
- 21) One of them below is not part of the group of potash deposits
- 1) sylvite
 - 2) kieserite
 - 3) Kainite
 - 4) Langbeinite





- 22)is the most abundant because of seawater
- 1) - Na⁺
 - 2) Cl⁻
 - 3) - Mg²⁺
 - 4) - Ca²⁺
- 23) Precambrian evaporite deposits are scarces, either because:
- 1) - they were not deposits
 - 2) - they have been dissolved away during diagenesis through geologic time
 - 3) all of the above
- 24) The greatest evaporite deposits are formed during
- 1) - Jurassic and Miocene periods.
 - 2) Permian and miocene periods
 - 3) - Permian and Jurassic periods.
- 25) Most o the sodium carbonate has been derived directly by
- 1) - Decomposition of volcanic rocks
 - 2) - Complex chemical reactions
 - 3) - Algae
 - 4) all of the above
- 26) The potassium carbonate is considered to be the indirect product of the work of organisms.
- 1) TRUE.
 - 2) - FALSE.
- 27) Perennial lakes which are lakes that appear only during certain seasons.
- 1) - TRUE.
 - 2) FALSE.
- 28) Gypsum precipitates if 80 -90 % of seawater has been removed
- 1) TRUE.
 - 2) - FALSE.
- 29) Wackstone are mud-supporrtd carbonate rocks.
- 1) TRUE.
 - 2) - FALSE.
- 30) playa lakes which are lakes that are there year-round.
- 1) - TRUE.
 - 2) FALSE.
- 31) An allochem is a carbonate particle that has been transported a short distance and deposited as sediment.
- 1) TRUE.
 - 2) - FALSE.
- 32) Intraclasts are intraformational lithic fragments derived through the erosion of previously deposited carbonate sediment.
- 1) TRUE.
 - 2) - FALSE.
- 33) Rates of evaporite deposition are fast compared to other sediments.
- 1) TRUE.
 - 2) - FALSE.
- 34) Ooids are spherical carbonate grains consisting of concentric laminations and are typically less than 1 mm in diameter.
- 1) TRUE.
 - 2) - FALSE.
- 35) Boundstone are carbonate rocks in which components have been bound together through organic processes.
- 1) TRUE.





- 2) - FALSE.
- 36) 1000 m (1 km) of seawater will produce 17 m of evaporites.
1) TRUE.
2) - FALSE.
- 37) Pelloids are composed of micro-to crystalline carbonate mud.
1) TRUE.
2) - FALSE.
- 38) Floatstone are packstones in which at least 10% o the grains are gravel size.
1) TRUE.
2) - FALSE.
- 39) Rudstones are grainstones in which at least 10% o the grains are gravel size.
1) TRUE.
2) - FALSE.
- 40) The original character of most evaporite has been destroyed through geologic time.
1) TRUE.
2) - FALSE.
- 41) The Marine environment are coastal, sabkhs, salt pans, barred basins, salt lake
1) - TRUE.
2) FALSE.
- 42) Shelter porosity is what may develop when shells are deposited in a convex-up position.
1) TRUE.
2) - FALSE.
- 43) Syndimentary dolomite can form in saline waters and the process normally involves microbial activity.
1) TRUE.
2) - FALSE.
- 44) Micrite is equivalent to mudstone in dunham classification.
1) TRUE.
2) - FALSE.
- 45) Biolithites are formed by organisms that bind sediment as part of their growth process.
1) TRUE.
2) - FALSE.
- 46) Pores are cavities in the rock and can be related to depositional, diagenetic and tectonic processes.
1) TRUE.
2) - FALSE.
- 47) Calcite forms scalenohedron with pointy terminations, but it is rarely idiomorphic.
1) TRUE.
2) - FALSE.
- 48) Secondary moldic porosity consists of open space within allochems produced through dissolution.
1) TRUE.
2) - FALSE.
- 49) Major variables controls on carbonate deposition into : Turbulence of wateroxyen , Co2 , clarity.
1) TRUE.
2) - FALSE.
- 50) 90% of the modren carbonate production is related to the deposition of calcitic plankton in the deep.
1) TRUE.
2) - FALSE.

