FirstRanker.com
Firstranker's choice
www.FirstRanker.com www.FirstRanker.com

Topic:- DU_J19_MPHIL_GEO

1) Specific capacity of a tubewell is a functions of: [Question ID = 2252]

1. Tubewell discharge [Option ID = 9005]
2. All of the above [Option ID = 9008]
3. Formation loss (BQ) [Option ID = 9006]
4. well loss (CQ^2) [Option ID = 9007]

Correct Answer :-

- Tubewell discharge [Option ID = 9005]

2) Distribution of isograds in Barrovian patterns can be considered to represent:

[Question ID = 2266]

1. Contact metamorphism [Option ID = 9061]
2. Regional metamorphism of burial type [Option ID = 9063]
3. Regional metamorphism of intermediate P series [Option ID = 9062]
4. Regional metamorphism of low P series [Option ID = 9064]

Correct Answer :-

- Contact metamorphism [Option ID = 9061]

3) The Pokharan boulder bed at the base of the Marwar supergroup is related to: [Question ID = 2271]

1. Glaciofluvial deposit [Option ID = 9083]
2. Alluvial fan deposit [Option ID = 9081]
3. Aeolian deposit [Option ID = 9084]
4. Submarine fan deposit [Option ID = 9082]

Correct Answer :-

- Alluvial fan deposit [Option ID = 9081]

4) The behaviour of ordinary (OR) and extraordinary (ER) ray through a Nicol prism is defined by: [Question ID = 2282]

1. The OR is totally reflected but ER emerges at the end [Option ID = 9126]
2. The ER is totally reflected but OR emerges at the end [Option ID = 9125]
3. Both OR and ER are totally reflected [Option ID = 9127]
4. Both OR and ER are transmitted [Option ID = 9128]

Correct Answer :-

- The ER is totally reflected but OR emerges at the end [Option ID = 9125]

5) Evaluate the two statements and choose the correct option from:
Statement I- In crystallization from a magma, early crystal will be composed of magnesian olivines, pyroxenes with a high Mg/Fe+2 ratio and calcic plagioclases

www.FirstRanker.com
FirstRanker.com
Firstranker's choice

FirstRanker.com
Firstranker's choice
www.FirstRanker.com www.FirstRanker.com

Statement II: Successive liquids formed from basaltic magma will be progressively enriched in (Na+K)/Ca, in Fe+2/Mg and in (Na+K)/Fe+2

[Question ID = 2263]

1. Statement I is correct and II incorrect [Option ID = 9049]
2. Statement II is correct and I incorrect [Option ID = 9050]
3. Statement I and II are incorrect [Option ID = 9052]
4. Statement I and II are correct [Option ID = 9051]

Correct Answer :-

- Statement I is correct and II incorrect [Option ID = 9049]

6) Which amongst the following represents crystal form of two non-parallel faces related by a twofold rotation? [Question ID = 2264]

1. Sphenoid [Option ID = 9056]
2. Pinacoid [Option ID = 9054]
3. Dome [Option ID = 9055]
4. Pedion [Option ID = 9053]

Correct Answer :-

- Pedion [Option ID = 9053]

7) Maximum separation of the reflectance value of vegetation, soil, and water is seen in: [Question ID = 2268]

1. Red band [Option ID = 9071]
2. Blue band [Option ID = 9069]
3. Green band [Option ID = 9070]
4. Infrared band [Option ID = 9072]

Correct Answer :-

- Blue band [Option ID = 9069]

8) If competent layers of different thickness are encased close to each other in a relatively incompetent material, which type of folds is most likely to be produced by layer-parallel shortening? [Question ID = 2247]

1. harmonic folds [Option ID = 8985]
2. polyharmonic folds [Option ID = 8987]
3. disharmonic folds [Option ID = 8986]
4. no folding of layers. [Option ID = 8988]

Correct Answer :-

- harmonic folds [Option ID = 8985]

9) The Cumbum Formation of the Cuddapah Supergroup is characterized by: [Question ID = 2278]

1. Shallow marine carbonates [Option ID = 9110]
2. Deep water facies with black shales [Option ID = 9109]
3. Fluvio-glacial sediments [Option ID = 9112]
4. Shallow water clastics [Option ID = 9111]

Correct Answer :-

- Deep water facies with black shales [Option ID = 9109]

firstranker.com
FirstRanker.com
Firstranker's choice
www.FirstRanker.com

FirstRanker.com
Firstranker's choice
www.FirstRanker.com www.FirstRanker.com

10) Saurischian dinosaurs are distinguished from ornithischian dinosaurs in having

[Question ID = 2260]

1. Tetraradiate pelvis [Option ID = 9037]
2. Triradiate pelvis [Option ID = 9038]
3. Locomotion [Option ID = 9039]
4. None of the above [Option ID = 9040]

Correct Answer :-

- Tetraradiate pelvis [Option ID = 9037]

11) Authigenic precipitation of K rich mica in shallow marine sediments during low sedimentation rate refers to: [Question ID = 2277]

1. Rapid fall of sea level [Option ID = 9107]
2. Large storm [Option ID = 9108]
3. Flow expansion [Option ID = 9105]
4. Glaucony [Option ID = 9106]

Correct Answer :-

- Flow expansion [Option ID = 9105]

12) In symmetry operations reflection in a point, reflection in a line and reflection in a plane can be represented respectively as: [Question ID = 2265]

1. Inversion, mirror reflection and reversal [Option ID = 9060]
2. Reversal, inversion and mirror reflection [Option ID = 9057]
3. Reversal, mirror reflection and inversion [Option ID = 9059]
4. Inversion, reversal and mirror reflection [Option ID = 9058]

Correct Answer :-

- Reversal, inversion and mirror reflection [Option ID = 9057]

13) Mr. Singh looks down onto a broad valley but can't find the stream that carved it. Mr. Singh (correctly!) concludes that this represents a(n)_____ stream valley: [Question ID = 2254]

1. youthful [Option ID = 9015]
2. misfit [Option ID = 9016]
3. impotent [Option ID = 9013]
4. overfit [Option ID = 9014]

Correct Answer :-

- impotent [Option ID = 9013]

14) As one moves away from MOR, the depth and age of the oceanic lithosphere .....due to compensation: [Question ID = 2286]

1. Both depth and age decrease [Option ID = 9143]
2. Depth decreases but age increases [Option ID = 9144]
3. Depth increases but age remains same [Option ID = 9141]
4. Both depth and age increase [Option ID = 9142]

Correct Answer :-

- Depth increases but age remains same [Option ID = 9141]

firstranker.com
www.FirstRanker.com
FirstRanker.com
Firstranker's choice

FirstRanker.com
Firstranker's choice

15) The carbon isotopic composition of the paleosol carbonates with $\delta^{13}C$ values ranging from -9.4‰ to -11.3‰ indicate: [Question ID = 2292]

1. Dominance of C3 type of vegetation [Option ID = 9165]
2. Dominance of C4 type vegetation [Option ID = 9166]
3. Dominance of a mixed vegetation [Option ID = 9168]
4. Dominance of CAM vegetation [Option ID = 9167]

Correct Answer :-

- Dominance of C3 type of vegetation [Option ID = 9165]

16) Stream saltation is: [Question ID = 2253]

1. a measure of the total dissolved solids in a stream [Option ID = 9012]
2. a jumping process in bed load [Option ID = 9011]
3. the dissolution of salty minerals by flowing water [Option ID = 9009]
4. the grinding of abrasion potholes in a stream bed [Option ID = 9010]

Correct Answer :-

- the dissolution of salty minerals by flowing water [Option ID = 9009]

17) The thrusting of the Lesser Himalayan rocks over the Sub-Himalayan rocks is defined by: [Question ID = 2290]

1. MCT [Option ID = 9158]
2. ITSZ [Option ID = 9157]
3. MFT [Option ID = 9160]
4. MBT [Option ID = 9159]

Correct Answer :-

- ITSZ [Option ID = 9157]

18) The last 4,200 years has been classified as the distinct age of our planet is: [Question ID = 2273]

1. Northgrippian [Option ID = 9091]
2. Greenlandian [Option ID = 9089]
3. Calabrian [Option ID = 9092]
4. Meghalayan [Option ID = 9090]

Correct Answer :-

- Greenlandian [Option ID = 9089]

19) A region is characterized by the following: few lakes or swamps, well-developed floodplains, upland divides with even slopes and with rounded-to-knife-edged summits within easy view of the stream margin. William Morrison Davis would have gazed upon this region and classified it as: [Question ID = 2255]

1. youthful [Option ID = 9019]
2. old age [Option ID = 9020]
3. adolescent [Option ID = 9017]
4. mature [Option ID = 9018]

Correct Answer :-

- adolescent [Option ID = 9017]

firstranker.com

FirstRanker.com
Firstranker's choice
www.FirstRanker.com www.FirstRanker.com

20) Mesozoic reefs are formed primarily by [Question ID = 2262]

1. Sponges [Option ID = 9045]
2. Rugose corals [Option ID = 9047]
3. Scleractinian corals [Option ID = 9048]
4. Archaeocyathids [Option ID = 9046]

Correct Answer :-

- Sponges [Option ID = 9045]

21) The kerogen consisting of woody terrestrial source material that typically generates gas is: [Question ID = 2272]

1. Type-I [Option ID = 9085]
2. Type-III [Option ID = 9087]
3. Type-IV [Option ID = 9088]
4. Type-II [Option ID = 9086]

Correct Answer :-

- Type-I [Option ID = 9085]

22) The braided channel is defined by: [Question ID = 2289]

1. Low width/depth ratio, steep slope, low bed load, low sinuosity [Option ID = 9155]
2. High width/depth ratio, gentle slope, high bed load, high sinuosity [Option ID = 9156]
3. Low width/depth ration, gentle slope, low bed load, high sinuosity [Option ID = 9154]
4. High width/depth ratio, steep slope, high bed load, low sinuosity [Option ID = 9153]

Correct Answer :-

- High width/depth ratio, steep slope, high bed load, low sinuosity [Option ID = 9153]

23) During the last glacial maxima (LGM) the global sea level was .....lower than it is today: [Question ID = 2279]

1. 400 m [Option ID = 9113]
2. 100 m [Option ID = 9114]
3. 300 m [Option ID = 9115]
4. 200 m [Option ID = 9116]

Correct Answer :-

- 400 m [Option ID = 9113]

24) During groundwater pumping through a tubewell at high discharge, the drawdown observed inside the tubewell: [Question ID = 2251]

1. Is generally more then expected drawdown in the aquifer [Option ID = 9001]
2. Is generally same as expected drawdown in the aquifer [Option ID = 9003]
3. None of the above [Option ID = 9004]
4. Is generally less then expected drawdown in the aquifer [Option ID = 9002]

Correct Answer :-

- Is generally more then expected drawdown in the aquifer [Option ID = 9001]

25) If there was no atmosphere, the average surface temperature of the Earth would have been: [Question ID = 2285]

firstranker.com

FirstRanker.com
Firstranker's choice
www.FirstRanker.com www.FirstRanker.com

1. -20°C [Option ID = 9138]
2. 15°C [Option ID = 9140]
3. 20°C [Option ID = 9137]
4. -8.5°C [Option ID = 9139]

Correct Answer :-

- 20°C [Option ID = 9137]

26) Well loss in pumping well leads to: [Question ID = 2248]

1. Full loss of drawdown [Option ID = 8991]
2. Increase in drawdown [Option ID = 8989]
3. Decrease in drawdown [Option ID = 8990]
4. Loss in recovery of pumping well [Option ID = 8992]

Correct Answer :-

- Increase in drawdown [Option ID = 8989]

27) A SOI toposheet 44D/11 has a stream stretch measured as 5.5 cm, this corresponds to .....km on land: [Question ID = 2281]

1. 5.75 km [Option ID = 9124]
2. 3.75 km [Option ID = 9121]
3. 4 .75km [Option ID = 9122]
4. 2.75 km [Option ID = 9123]

Correct Answer :-

- 3.75 km [Option ID = 9121]

28) Paired terraces form when _____ of the river channel: [Question ID = 2270]

1. none of the above [Option ID = 9080]
2. vertical incision is more rapid than lateral migration [Option ID = 9078]
3. lateral migration is more rapid than vertical incision [Option ID = 9077]
4. there is only lateral migration [Option ID = 9079]

Correct Answer :-

- lateral migration is more rapid than vertical incision [Option ID = 9077]

29) Which of the following data gives maximum vertical accuracy? [Question ID = 2269]

1. ASTER [Option ID = 9076]
2. SRTM [Option ID = 9075]
3. LiDAR [Option ID = 9073]
4. RADAR [Option ID = 9074]

Correct Answer :-

- LiDAR [Option ID = 9073]

30) The mean annual surface/subsurface temperature of dry base glaciers is about: [Question ID = 2291]

1. 0°C [Option ID = 9162]
2. -10°C [Option ID = 9161]
3. +20°C [Option ID = 9164]
4. -20°C [Option ID = 9163]

firstranker.com
www.FirstRanker.com
FirstRanker.com
Firstranker's choice

FirstRanker.com
Firstranker's choice
www.FirstRanker.com www.FirstRanker.com

Correct Answer :-

- -10°C [Option ID = 9161]

31) Estimation of Storativity using Theis equation for unsteady state radial flow to a tubewell in confined aquifer can be done using:

[Question ID = 2250]

1. Drawdown & time data of the observation well near pumping well [Option ID = 8997]
2. None of the above [Option ID = 9000]
3. Only after we estimate transmissivity value [Option ID = 8998]
4. Drawdown & time data of the observation well near pumping well and only after we estimate transmissivity value [Option ID = 8999]

Correct Answer :-

- Drawdown & time data of the observation well near pumping well [Option ID = 8997]

32) The river type defined by multiple channels, large stable islands and dominance of suspension load is: [Question ID = 2275]

1. Meandering River [Option ID = 9098]
2. Anastomosing river [Option ID = 9099]
3. Braided River [Option ID = 9100]
4. Straight river [Option ID = 9097]

Correct Answer :-

- Straight river [Option ID = 9097]

33) The sedimentary structures marked by mud drapes and bipolar cross stratification demarcate: [Question ID = 2276]

1. Deep water currents [Option ID = 9103]
2. Tidal current processes [Option ID = 9102]
3. Waves and storm processes [Option ID = 9101]
4. Fluvial processes [Option ID = 9104]

Correct Answer :-

- Waves and storm processes [Option ID = 9101]

34) The sedimentary shell of Earth is marked by ~50% of ..... [Question ID = 2288]

1. Limestone [Option ID = 9152]
2. Sandstone [Option ID = 9150]
3. Shale/mudrocks [Option ID = 9149]
4. Conglomerate [Option ID = 9151]

Correct Answer :-

- Shale/mudrocks [Option ID = 9149]

35) Amount of the bed load in the sedimentary flux from all rivers to ocean is commonly:

[Question ID = 2284]

1. More than suspended load [Option ID = 9134]
2. <10 % of the suspended load [Option ID = 9135]

FirstRanker.com
Firstranker's choice
www.FirstRanker.com

FirstRanker.com
Firstranker's choice
www.FirstRanker.com www.FirstRanker.com

3. > 10% of the suspended load [Option ID = 9134]
4. Equal to suspended [Option ID = 9133]

Correct Answer :-

- Equal to suspended [Option ID = 9133]

36) In a thrust sequence, the first (earliest) thrust forms ahead and successively younger thrusts form in the hanging wall of the preceding thrusts. The sequence is called: [Question ID = 2246]

1. none of the above. [Option ID = 8984]
2. a break-back sequence [Option ID = 8982]
3. an irregular sequence [Option ID = 8983]
4. a piggyback sequence [Option ID = 8981]

Correct Answer :-

- a piggyback sequence [Option ID = 8981]

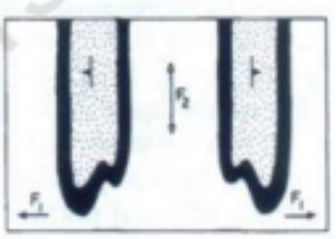
37) Assertion (A): The amount and character of strain can be assessed with greater precision in deformed fossils than in inorganic structures
Reasoning (R): Undeformed specimens of same species better preserve original Shape [Question ID = 2259]

1. A is false [Option ID = 9035]
2. R is false [Option ID = 9036]
3. R explains A [Option ID = 9033]
4. R does not explain A [Option ID = 9034]

Correct Answer :-

- R explains A [Option ID = 9033]

38)



The above figure shows a 'mirror-image' type symmetrical fold interference pattern. Such an interference pattern is characteristic of which type of superposed fold geometry?

[Question ID = 2243]

1. Non-plane, cylindrical [Option ID = 8971]
2. Non-plane, non-cylindrical [Option ID = 8970]
3. Plane, non-cylindrical [Option ID = 8969]
4. Plane cylindrical [Option ID = 8972]

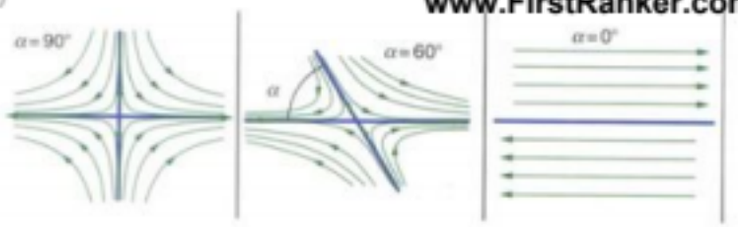
Correct Answer :-

- Plane, non-cylindrical [Option ID = 8969]

www.FirstRanker.com
FirstRanker.com
Firstranker's choice

FirstRanker.com
Firstranker's choice
www.FirstRanker.com www.FirstRanker.com

39)



The above figure shows the particle paths of flow characteristic of three different types of deformation. From left to right they are:

[Question ID = 2245]

1. Simple shear, General shear, Pure shear [Option ID = 8978]
2. Pure shear, General shear, Simple shear [Option ID = 8979]
3. Simple shear, Pure shear, General shear [Option ID = 8980]
4. Pure shear, Simple shear, General shear [Option ID = 8977]

Correct Answer :-

- Pure shear, Simple shear, General shear [Option ID = 8977]

40) The upstream geomorphic response of dam on a river profile is characterised by: [Question ID = 2274]

1. Flattening of the profile and deltaic deposition [Option ID = 9095]
2. Steepening of the profile and increased erosion [Option ID = 9093]
3. Steepening of the profile and increased deposition [Option ID = 9094]
4. Flattening of the profile and increased incision [Option ID = 9096]

Correct Answer :-

- Steepening of the profile and increased erosion [Option ID = 9093]

41) A polar wandering curve: [Question ID = 2256]

1. is a graph utilized to interpret the Richter Scale [Option ID = 9024]
2. shows that the continents wandered relative to generally-fixed pole positions [Option ID = 9023]
3. shows that the magnetic poles wandered relative to fixed continents [Option ID = 9021]
4. shows that the rotational poles wandered to fixed continents [Option ID = 9022]

Correct Answer :-

- shows that the magnetic poles wandered relative to fixed continents [Option ID = 9021]

42) Which of the following facies is absent in the low P series of metamorphism of mafic rocks? [Question ID = 2267]

1. Epidote hornfels facies [Option ID = 9068]
2. Epidote amphibolite facies [Option ID = 9067]
3. Greenschist facies [Option ID = 9065]
4. Sanidintie facies [Option ID = 9066]

Correct Answer :-

- Greenschist facies [Option ID = 9065]

43) Which of the following oceanic processes accounts for most of the earth's sedimentary rock containing phosphate? [Question ID = 2258]

www.FirstRanker.com
FirstRanker.com
Firstranker's choice

FirstRanker.com
Firstranker's choice
www.FirstRanker.com www.FirstRanker.com

1. Subtropical convergence [Option ID = 9032]
2. Equatorial divergence [Option ID = 9031]
3. Coastal upwelling [Option ID = 9030]
4. Thermohaline circulation [Option ID = 9029]

Correct Answer :-

- Thermohaline circulation [Option ID = 9029]

44) Which of the following is considered as the largest extinction in Earth's history that killed 90-96% of the species? [Question ID = 2280]

1. Ordovician-Silurian [Option ID = 9117]
2. Late Devonian [Option ID = 9118]
3. Cretaceous-Paleogene [Option ID = 9120]
4. Permian-Triassic [Option ID = 9119]

Correct Answer :-

- Ordovician-Silurian [Option ID = 9117]

45) The Skolithos assemblage of Ichnofacies defined by vertical tube-like features refer to: [Question ID = 2283]

1. Sandy shore [Option ID = 9129]
2. Sub-littoral [Option ID = 9130]
3. Bathyal zone [Option ID = 9131]
4. Abyssal Zone [Option ID = 9132]

Correct Answer :-

- Sandy shore [Option ID = 9129]

46) ———————— structures indicate evolution from a common ancestor

[Question ID = 2261]

1. Analogous [Option ID = 9041]
2. Homologous [Option ID = 9042]
3. vestigial [Option ID = 9043]
4. None of the above [Option ID = 9044]

Correct Answer :-

- Analogous [Option ID = 9041]

47) A fold-mullion structure is typically the surface expression of hinges of

[Question ID = 2244]

1. cuspate-lobate folds [Option ID = 8974]
2. chevron folds [Option ID = 8975]
3. none of the above. [Option ID = 8976]
4. ptygmatic folds [Option ID = 8973]

Correct Answer :-

- ptygmatic folds [Option ID = 8973]

48) Ekman transport occurs in which part of the ocean [Question ID = 2257]

www.FirstRanker.com
FirstRanker.com
Firstranker's choice

FirstRanker.com
Firstranker's choice
www.FirstRanker.com www.FirstRanker.com

1. Upper ocean [Option ID = 9025]
2. Meso pelagic layer [Option ID = 9026]
3. Ocean bottom [Option ID = 9028]
4. Bathy pelagic layer [Option ID = 9027]

Correct Answer :-

- Upper ocean [Option ID = 9025]

49) The significant water level fluctuation is generally:

[Question ID = 2249]

1. Both Inversely related to change of atmospheric pressure in confined aquifers and directly related to change of Tidal amplitude in unconfined and confined aquifers [Option ID = 8995]
2. Directly related to change of Tidal amplitude in unconfined and confined aquifers [Option ID = 8994]
3. Inversely related to change of atmospheric pressure in confined aquifers [Option ID = 8993]
4. None of the above [Option ID = 8996]

Correct Answer :-

- Inversely related to change of atmospheric pressure in confined aquifers [Option ID = 8993]

50) The solar radiation/electromagnetic spectrum provides .....of all energy received by the Earth: [Question ID = 2287]

1. 80.98% [Option ID = 9147]
2. 99.98% [Option ID = 9148]
3. 10.98% [Option ID = 9145]
4. 50.98% [Option ID = 9146]

Correct Answer :-

- 10.98% [Option ID = 9145]

firstranker.com
www.FirstR

FirstRanker.com
Firstranker's choice
www.FirstRanker.com