

DU MSc Environmental Studies

Topic:- DU_J18_MSC_ES

1) The most important constituent of water hardness is

[Question ID = 2576]

1. Nitrogen [Option ID = 10307]
2. Iron [Option ID = 10303]
3. Phosphorus [Option ID = 10301]
4. Calcium [Option ID = 10305]

Correct Answer :-

- Calcium [Option ID = 10305]

2) World's first national park was established in 1872 largely in response to the efforts of naturalist and writer John Muir who was a strong believer of: [Question ID = 2603]

1. Utilitarian conservationist approach [Option ID = 10409]
2. Biocentric preservationist approach [Option ID = 10410]
3. Anthropocentric approach [Option ID = 10411]
4. Cultural approach [Option ID = 10412]

Correct Answer :-

- Biocentric preservationist approach [Option ID = 10410]

3) Reverse sexual size dimorphism is often seen in: [Question ID = 2592]

1. Sarus Crane [Option ID = 10365]
2. Raptors [Option ID = 10367]
3. Indian Peafowl [Option ID = 10366]
4. Dabbling ducks [Option ID = 10368]

Correct Answer :-

- Raptors [Option ID = 10367]

4) Microbiome refers to: [Question ID = 2600]

1. Genetic material of the entire collection of microorganisms in a specific niche [Option ID = 10397]
2. Genetic material of all the members of a genus [Option ID = 10399]
3. Genetic material of all the members of a family [Option ID = 10400]
4. Genetic material of all the members of a population [Option ID = 10398]

Correct Answer :-

- Genetic material of the entire collection of microorganisms in a specific niche [Option ID = 10397]

5) Which of the following biomes is least suitable for agriculture? [Question ID = 2615]

1. Boreal forest [Option ID = 10457]
2. Grassland [Option ID = 10460]
3. Savanna [Option ID = 10458]
4. Deciduous forest [Option ID = 10459]

Correct Answer :-

- Boreal forest [Option ID = 10457]

6) Birds and mammals in the colder regions have larger body size compared to their con-specifics of the warmer regions. This phenomenon is also known as: [Question ID = 2591]

1. Jordan's Rule [Option ID = 10364]
2. Gloger's Rule [Option ID = 10363]
3. Allen's Rule [Option ID = 10361]
4. Bergman's Rule [Option ID = 10362]

Correct Answer :-

- Bergman's Rule [Option ID = 10362]

7) Lotka-Volterra model is associated with: [Question ID = 2620]

1. All of these [Option ID = 10480]
2. Plant-herbivore interaction [Option ID = 10477]
3. Herbivore-carnivore interactions [Option ID = 10479]
4. Host-parasite interaction [Option ID = 10478]

Correct Answer :-

- All of these [Option ID = 10480]

8) _____ niche of an organism is usually _____ than its _____ niche: [Question ID = 2612]

1. Fundamental, Broader, Realized [Option ID = 10446]
2. Fundamental, Narrower, Realized [Option ID = 10448]
3. Realized, Narrower, Fundamental [Option ID = 10447]
4. Realized, Broader, Fundamental [Option ID = 10445]

Correct Answer :-

- Fundamental, Broader, Realized [Option ID = 10446]
- Realized, Narrower, Fundamental [Option ID = 10447]

9) Living organisms change the chemical species of an inorganic element by a process called: [Question ID = 2602]

1. Biodegradation [Option ID = 10406]
2. Ecological transfer [Option ID = 10408]
3. Biotransformation [Option ID = 10407]
4. Trophic transfer [Option ID = 10405]

Correct Answer :-

- Biotransformation [Option ID = 10407]

10) When a detective interprets general habits of a stranger on the basis of isolated observations, he is exercising: [Question ID = 2601]

1. Both Deductive reasoning and Inductive reasoning [Option ID = 10403]
2. Neither Deductive reasoning nor Inductive reasoning [Option ID = 10404]
3. Deductive reasoning [Option ID = 10401]
4. Inductive reasoning [Option ID = 10402]

Correct Answer :-

- Inductive reasoning [Option ID = 10402]

11) The open surface water in a lake away from the shore is known as: [Question ID = 2581]

1. Benthic zone [Option ID = 10321]
2. Limnetic zone [Option ID = 10324]
3. Profundal zone [Option ID = 10322]
4. Littoral zone [Option ID = 10323]

Correct Answer :-

- Limnetic zone [Option ID = 10324]

12) In a human population of 20000, if there are 400 births per year and 200 deaths per year. What is the growth rate of the population? [Question ID = 2619]

1. 10 % [Option ID = 10474]
2. 2 % [Option ID = 10475]
3. 20 % [Option ID = 10476]
4. 1 % [Option ID = 10473]

Correct Answer :-

- 1 % [Option ID = 10473]

13) Kalpakkam is famous for: [Question ID = 2579]

1. Hydroelectricity plant [Option ID = 10314]
2. Coal Power plant [Option ID = 10315]

3. Thermal power plant [Option ID = 10313]
4. Nuclear Power Plant [Option ID = 10316]

Correct Answer :-

- Nuclear Power Plant [Option ID = 10316]

14) Human-driven changes to vegetation include: [Question ID = 2583]

1. All of these [Option ID = 10332]
2. Extinction [Option ID = 10330]
3. Range size change [Option ID = 10331]
4. Exotic species invasion [Option ID = 10329]

Correct Answer :-

- All of these [Option ID = 10332]

15) The largest mangrove habitats in India are in: [Question ID = 2598]

1. Andaman islands [Option ID = 10390]
2. Sunderbans [Option ID = 10389]
3. Gulf of Kutch [Option ID = 10392]
4. Gulf of Mannar [Option ID = 10391]

Correct Answer :-

- Sunderbans [Option ID = 10389]

16) Phytostimulation is widely used for degradation of hydrocarbons in the soil. The principle of this technology is:

[Question ID = 2616]

1. Stimulation of enzymes in leaves of plants which can degrade the contaminants [Option ID = 10461]
2. Stimulation of hydrocarbon degrading microbes in soil by plant root exudates [Option ID = 10462]
3. Stimulation of chemical reactions by plants which result in hydrocarbon degradation [Option ID = 10463]
4. Stimulation of growth of plant which accumulates hydrocarbons inside the leaves [Option ID = 10464]

Correct Answer :-

- Stimulation of hydrocarbon degrading microbes in soil by plant root exudates [Option ID = 10462]

17) Thermal power plant is considered as a: [Question ID = 2582]

1. Both Diffuse source of pollutants and Point source of pollutants [Option ID = 10327]
2. None of these [Option ID = 10328]
3. Point source of pollutants [Option ID = 10326]
4. Diffuse source of pollutants [Option ID = 10325]

Correct Answer :-

- Point source of pollutants [Option ID = 10326]

18) As per Carl Woese, the three domains of life are: [Question ID = 2608]

1. Crenarchaeota, Euryarchaeota, Bacteria [Option ID = 10431]
2. Extremophiles, Metallophilic, Thermophiles [Option ID = 10432]
3. Eukarya, Bacteria, Archaea [Option ID = 10429]
4. Animal, Fungi, Bacteria [Option ID = 10430]

Correct Answer :-

- Eukarya, Bacteria, Archaea [Option ID = 10429]

19) As per 2006 notification of Gazette of India, Environmental Impact Assessment report of a proposed river valley project after environmental clearance is applicable for a maximum period of: [Question ID = 2596]

1. 10 years [Option ID = 10382]
2. 30 years [Option ID = 10383]
3. 5 years [Option ID = 10381]
4. 2 years [Option ID = 10384]

Correct Answer :-

- 10 years [Option ID = 10382]

20) What is the source of energy for deep-sea organisms in hydrothermal vents? [Question ID = 2610]

1. Inorganic compounds [Option ID = 10440]
2. Sun [Option ID = 10437]
3. Ocean wave energy [Option ID = 10439]
4. Organic matter that settles at sea floor [Option ID = 10438]

Correct Answer :-

- Inorganic compounds [Option ID = 10440]

21) Identify the place of origin of river Narmada: [Question ID = 2578]

1. Narmdapur [Option ID = 10312]
2. Devpura [Option ID = 10311]
3. Narendra Nagar [Option ID = 10309]
4. Amarkantak [Option ID = 10310]

Correct Answer :-

- Amarkantak [Option ID = 10310]

22) Identify the incorrect match: [Question ID = 2614]

1. National Bureau of Soil Survey and Land Use Planning – Nagpur [Option ID = 10455]
2. National Bureau of Plant Genetic Resources (NBPGR) – New Delhi [Option ID = 10454]
3. National Bureau of Animal Genetic Resources – Mumbai [Option ID = 10453]
4. National Bureau of Fish Genetic Resources – Lucknow [Option ID = 10456]

Correct Answer :-

- National Bureau of Animal Genetic Resources – Mumbai [Option ID = 10453]

23) The particle size associated with ambient aerosols in the atmosphere is in the range of: [Question ID = 2590]

1. 100 – 150 μm [Option ID = 10359]
2. > 200 μm [Option ID = 10360]
3. 1 – 5 μm [Option ID = 10357]
4. 50 – 100 μm [Option ID = 10358]

Correct Answer :-

- 1 – 5 μm [Option ID = 10357]

24) In *r*-selected species, seed number, seed size, size of individuals and lifespan are ____, ____, ____, and ____, respectively.

[Question ID = 2644]

1. High, large, large, short [Option ID = 10576]
2. High, small, small, short [Option ID = 10573]
3. Low, large, large, long [Option ID = 10574]
4. High, large, large, long [Option ID = 10575]

Correct Answer :-

- High, small, small, short [Option ID = 10573]

25) Several factors affect population growth, such as (i) predation, (ii) disease, (iii) competition, and (iv) hurricane and fire. Identify the density-independent factors from the following options: [Question ID = 2599]

1. (ii) [Option ID = 10394]
2. (ii) and (iii) [Option ID = 10396]
3. (iv) [Option ID = 10395]
4. (i), and (iii) [Option ID = 10393]

Correct Answer :-

- (iv) [Option ID = 10395]

26) Phenograms are used to study [Question ID = 2827]

1. Pollination mechanisms in plants [Option ID = 11308]
2. Climate distribution of plants [Option ID = 11305]
3. Photosynthetic efficiency of plants [Option ID = 11306]

4. Life history events in plants [Option ID = 11307]

Correct Answer :-

- Life history events in plants [Option ID = 11307]

27) Climate change and warming can have these consequences: [Question ID = 2575]

1. Range expansion of diseases to new areas [Option ID = 10296]
2. All of these [Option ID = 10300]
3. Farmers distress [Option ID = 10298]
4. Loss of horticulture productivity [Option ID = 10294]

Correct Answer :-

- All of these [Option ID = 10300]

28) Which one of the following field of studies would be the most appropriate to study the broad scale environmental issues involving land management problems? [Question ID = 2609]

1. Community ecology [Option ID = 10435]
2. Invasion ecology [Option ID = 10433]
3. Landscape ecology [Option ID = 10434]
4. Population ecology [Option ID = 10436]

Correct Answer :-

- Landscape ecology [Option ID = 10434]

29) Which one of the following facilitates biodiversity in nutrient-poor soils? [Question ID = 2586]

1. Competition [Option ID = 10342]
2. Parasitism [Option ID = 10343]
3. Resource partitioning [Option ID = 10341]
4. Bioaccumulation [Option ID = 10344]

Correct Answer :-

- Resource partitioning [Option ID = 10341]

30) Which one of the following species of mercury accumulates easily in the living cells and is considered highly toxic? [Question ID = 2593]

1. Mercurous ion [Option ID = 10369]
2. Organomercurials [Option ID = 10371]
3. Mercuric ion [Option ID = 10370]
4. Atomic mercury [Option ID = 10372]

Correct Answer :-

- Organomercurials [Option ID = 10371]

31) Which of the following may not be an effect of climate change? [Question ID = 2618]

1. Range expansion of tropical diseases [Option ID = 10469]
2. None of these [Option ID = 10472]
3. Extreme weather events [Option ID = 10470]
4. Immense wildfires [Option ID = 10471]

Correct Answer :-

- None of these [Option ID = 10472]

32) Which of the following is correct about attributes in Geographic Information System (GIS)? [Question ID = 2595]

1. Can be analyzed to determine patterns of importance [Option ID = 10378]
2. Are entered directly into a database where it is associated with element data. [Option ID = 10379]
3. All of these [Option ID = 10380]
4. Pieces of data connected or related to the points, lines or polygons mapped in the GIS [Option ID = 10377]

Correct Answer :-

- All of these [Option ID = 10380]

33) Which of the following most realistically represents the flow of energy and material through an ecosystem? [Question ID = 2605]

1. Food web [Option ID = 10418]

2. Pyramid of biomass [Option ID = 10419]
3. Food chain [Option ID = 10417]
4. Pyramid of numbers [Option ID = 10420]

Correct Answer :-

- Food web [Option ID = 10418]

34) Redox potential in the soil is not regulated by: [Question ID = 2589]

1. Strong oxidizing agent [Option ID = 10355]
2. Soil particle size [Option ID = 10353]
3. Soil organic carbon [Option ID = 10354]
4. Weak oxidizing agent [Option ID = 10356]

Correct Answer :-

- Soil particle size [Option ID = 10353]

35) Groundwater mining in coastal areas can lead to: [Question ID = 2588]

1. Decreased salinity of groundwater [Option ID = 10351]
2. Increased water table [Option ID = 10350]
3. Increased salinity of groundwater [Option ID = 10352]
4. Reduced pollutant concentration in groundwater [Option ID = 10349]

Correct Answer :-

- Increased salinity of groundwater [Option ID = 10352]

36) Increased concentration of a chemical at a higher trophic level is known as: [Question ID = 2621]

1. Biopersistence [Option ID = 10481]
2. Biomagnification [Option ID = 10483]
3. Bioaccumulation [Option ID = 10482]
4. Biomineral [Option ID = 10484]

Correct Answer :-

- Biomagnification [Option ID = 10483]

37) Atmosphere on the Earth is maintained by: [Question ID = 2624]

1. All of these [Option ID = 10496]
2. Earth's rotation [Option ID = 10494]
3. Ozone [Option ID = 10493]
4. Earth's magnetic field [Option ID = 10495]

Correct Answer :-

38) Bioprospecting deals with the:

[Question ID = 2607]

1. Use of multiple ecological ideas for demarcation of protected areas [Option ID = 10427]
2. Use of multidisciplinary tools for a systematic search for genes, natural compounds, designs, and whole organisms for product development [Option ID = 10425]
3. Use of multiple tools for development of new crop varieties [Option ID = 10428]
4. Use of multi-disciplinary tools for conservation of ecosystems [Option ID = 10426]

Correct Answer :-

- Use of multidisciplinary tools for a systematic search for genes, natural compounds, designs, and whole organisms for product development [Option ID = 10425]

39) To prepare 1000 ml of a 10 ppm solution of NaOH, how much NaOH should be dissolved in water (NaOH Mol Wt. =40): [Question ID = 2585]

1. 4000 mg [Option ID = 10340]
2. 1000 mg [Option ID = 10339]
3. 40 mg [Option ID = 10338]
4. 10 mg [Option ID = 10337]

Correct Answer :-

- 10 mg [Option ID = 10337]

40) Which of the following processes affect the availability of organic content in soil: [Question ID = 2584]

1. Metal speciation [Option ID = 10335]
2. Sorption [Option ID = 10334]
3. All of these [Option ID = 10336]
4. Soil microbial activity [Option ID = 10333]

Correct Answer :-

- All of these [Option ID = 10336]

41) Which of the four Indian states decided to conduct a synchronized elephant census in May 2017? [Question ID = 2622]

1. West Bengal, Odisha, Chhattisgarh, Jharkhand [Option ID = 10487]
2. Odisha, Bihar, Jharkhand, Chhattisgarh [Option ID = 10488]
3. West Bengal, Odisha, MP, Chhattisgarh [Option ID = 10486]
4. West Bengal, Jharkhand, Bihar, Odisha [Option ID = 10485]

Correct Answer :-

- West Bengal, Odisha, Chhattisgarh, Jharkhand [Option ID = 10487]

42) Symbiosis is an intimate long-term relationship between two unlike organisms, where: [Question ID = 2613]

1. All of these [Option ID = 10452]
2. Both partners benefits [Option ID = 10449]
3. One partner benefits but other one is neither harmed nor helped [Option ID = 10450]
4. One partner benefits but the other one is harmed [Option ID = 10451]

Correct Answer :-

- All of these [Option ID = 10452]

43) Dobson unit is a measure of: [Question ID = 2606]

1. CO₂ concentration [Option ID = 10421]
2. CFC concentration [Option ID = 10422]
3. Ozone concentration [Option ID = 10423]
4. CO concentration [Option ID = 10424]

Correct Answer :-

- Ozone concentration [Option ID = 10423]

44) Inbreeding depression in a species is characterized by: [Question ID = 2611]

1. Reduced fitness [Option ID = 10441]
2. Fixation of useful genes [Option ID = 10442]
3. Speciation [Option ID = 10444]
4. Population explosion [Option ID = 10443]

Correct Answer :-

- Reduced fitness [Option ID = 10441]

45) An example of non-renewable, non-fossil energy resource is: [Question ID = 2587]

1. Tidal [Option ID = 10347]
2. Petrol [Option ID = 10345]
3. Uranium [Option ID = 10348]
4. Coal [Option ID = 10346]

Correct Answer :-

- Uranium [Option ID = 10348]

46) Identify the incorrect statement regarding IPAT model: [Question ID = 2597]

1. IPAT Model was proposed by Biologist Paul Ehrlich and Physicist John Holdren [Option ID = 10385]
2. It is a mathematical relationship between environmental impact and forces driving them [Option ID = 10386]
3. IPAT equation should be carefully interpreted as all the impacts of a particular technology on the complex environmental system are difficult to interpret [Option ID = 10388]
4. In IPAT, I= Industrial growth, P=Population, A=Affluence, T=Technology [Option ID = 10387]

Correct Answer :-

- In IPAT, I= Industrial growth, P=Population, A=Affluence, T=Technology [Option ID = 10387]

47) Identify the correct statement. When a tiger eats flesh and runs: [Question ID = 2604]

1. The chemical energy present in its food is not destroyed [Option ID = 10413]
2. All of these [Option ID = 10416]
3. None of the energy is lost from a thermodynamic point of view as this energy is still present in the physical environment [Option ID = 10415]
4. Some of the energy present in its food is released as heat, which cannot be reused for any biological work [Option ID = 10414]

Correct Answer :-

- All of these [Option ID = 10416]

48) Identify the random sampling method among the following : [Question ID = 2594]

1. Convenience sampling [Option ID = 10375]
2. Quota sampling [Option ID = 10374]
3. Judgment sampling [Option ID = 10373]
4. Stratified sampling [Option ID = 10376]

Correct Answer :-

- Stratified sampling [Option ID = 10376]

49) UN document 'Our Common Future' was related to: [Question ID = 2580]

1. Conservation of Biodiversity [Option ID = 10317]
2. Protection of Environment [Option ID = 10318]
3. Environmental Pollution [Option ID = 10319]
4. Sustainable Development [Option ID = 10320]

Correct Answer :-

- Sustainable Development [Option ID = 10320]

50) Red tides are cause and/or effect of: [Question ID = 2617]

1. Ecotoxicity in marine organisms [Option ID = 10466]
2. All of these [Option ID = 10468]
3. Blooms of pigmented algae [Option ID = 10465]
4. Reduced photosynthetic efficiency of aquatic plants [Option ID = 10467]

Correct Answer :-

- All of these [Option ID = 10468]