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DU PhD in Environmental Studie

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Topic:- DU_J19_PHD_ES

1) Which sampling method is thought to provide the most biased data?

[Question ID = 12645]

1. Simple Random sampling [Option ID = 20577]
2. Survey [Option ID = 20579]
3. Convenience sampling [Option ID = 20580]
4. Stratified sampling [Option ID = 20578]

Correct Answer :-

- Simple Random sampling [Option ID = 20577]

2) Which of the following correctly represents the inflection point in a population growth curve?

[Question ID = 12653]

1. $2\times K$ [Option ID = 20611]
2. $K/2$ [Option ID = 20610]
3. K [Option ID = 20609]
4. $3\times K$ [Option ID = 20612]

Correct Answer :-

- K [Option ID = 20609]

3) Which of the following sensor is *not* used in the remote sensing satellite?

[Question ID = 12673]

1. Biosensor [Option ID = 20692]
2. Thermal sensor [Option ID = 20691]
3. Electromagnetic sensor [Option ID = 20689]
4. Acoustic sensor [Option ID = 20690]

Correct Answer :-

- Electromagnetic sensor [Option ID = 20689]

4) Which of the following telescope arrays was used to take the first ever picture of a Black hole?

[Question ID = 12659]

1. Event Horizon telescope [Option ID = 20634]

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2. Allen telescope array [Option ID = 20636]
3. Hubble telescope [Option ID = 20635]
4. New horizon telescope [Option ID = 20633]

Correct Answer :-

- New horizon telescope [Option ID = 20633]

5) Which of the following indicators is used to determine the total hardness of water?

[Question ID = 12675]

1. Erichrome Black T [Option ID = 20699]
2. Murexide [Option ID = 20698]
3. Methyl Orange [Option ID = 20697]
4. Phenolphthalein [Option ID = 20700]

Correct Answer :-

- Methyl Orange [Option ID = 20697]

6) Which of the following measurements is likely to show a normal distribution?

[Question ID = 12643]

1. Body length [Option ID = 20569]
2. Percentage of time an animal spends foraging [Option ID = 20572]
3. Proportions of different species in a community [Option ID = 20571]
4. Exponential rates of litter decay [Option ID = 20570]

Correct Answer :-

- Body length [Option ID = 20569]

7) Which exotic species of *Prosopis* is highly invasive in India?

[Question ID = 12646]

1. *Prosopis glandulosa* [Option ID = 20583]
2. *Prosopis juliflora* [Option ID = 20582]
3. *Prosopis velutina* [Option ID = 20584]
4. *Prosopis cineraria* [Option ID = 20581]

Correct Answer :-

- *Prosopis cineraria* [Option ID = 20581]

8) Seed number, seed size, size of individuals, and life span (biological traits) of r-selected species in general are

[Question ID = 12630]

1. Low, large, large, and long [Option ID = 20518]
2. High, large, large, and long [Option ID = 20519]
3. High, large, large, and short [Option ID = 20520]

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4. High, small, small, and short [Option ID = 20517]

Correct Answer :-

- High, small, small, and short [Option ID = 20517]

9) GRIIS stands for:

[Question ID = 12634]

1. Global Register of Introduced and Invasive Species [Option ID = 20533]
2. Global Reduction of Introduced and Invasive Species [Option ID = 20535]
3. Global Red list of Introduced and Invasive Species [Option ID = 20534]
4. Global Research on Introduced and Invasive Species [Option ID = 20536]

Correct Answer :-

- Global Register of Introduced and Invasive Species [Option ID = 20533]

10) Which of the following exists as a polyploid species complex?

[Question ID = 12635]

1. *Knautia arvensis* (Dipsacaceae) [Option ID = 20539]
2. *Gymnadenia conopsea* (Orchidaceae) [Option ID = 20538]
3. *Lantana camara* (Verbenaceae) [Option ID = 20537]
4. All of these [Option ID = 20540]

Correct Answer :-

- *Lantana camara* (Verbenaceae) [Option ID = 20537]

11) Population of medicinal plants growing logistically can be harvested sustainably at

[Question ID = 12652]

1. Half of the carrying capacity [Option ID = 20605]
2. Double of the carrying capacity [Option ID = 20607]
3. None of these [Option ID = 20608]
4. The carrying capacity [Option ID = 20606]

Correct Answer :-

- Half of the carrying capacity [Option ID = 20605]

12) Which of the following signals might be best used by nocturnal forest animals for identifying their territory?

[Question ID = 12640]

1. Visual and olfactory [Option ID = 20557]
2. Auditory and olfactory [Option ID = 20558]
3. Tactile and olfactory [Option ID = 20559]
4. Tactile and auditory [Option ID = 20560]

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Correct Answer :-

- Visual and olfactory [Option ID = 20557]

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13) Mesothelioma is caused by the toxicity of

[Question ID = 12671]

1. Methane [Option ID = 20681]
2. Carbon monoxide [Option ID = 20684]
3. Sulphur di oxide [Option ID = 20682]
4. Asbestos [Option ID = 20683]

Correct Answer :-

- Methane [Option ID = 20681]

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14) In a pond ecosystem, which one of the following are the consumers in the heterotrophic layer?

[Question ID = 12664]

1. *Spirogyra* sp. [Option ID = 20654]
2. Fungi [Option ID = 20656]
3. Benthic insects [Option ID = 20655]
4. Diatoms [Option ID = 20653]

Correct Answer :-

- Diatoms [Option ID = 20653]

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15) The Folin-Ciocalteu method is used for determination of

[Question ID = 12648]

1. Nitrate content [Option ID = 20590]
2. Organic carbon content [Option ID = 20589]
3. Phosphate content [Option ID = 20591]
4. Total phenolic content [Option ID = 20592]

Correct Answer :-

- Organic carbon content [Option ID = 20589]

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16) According to the principle of _____, scientists avoid more complex explanations when a simple one will do.

[Question ID = 12654]

1. Authority [Option ID = 20615]
2. Parsimony [Option ID = 20613]
3. Falsifiability [Option ID = 20616]
4. Quota sampling [Option ID = 20614]

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- Parsimony [Option ID = 20613]

17) A range of measurements which includes the middle 50% of the measurements or observations in a sample, bounded by the lowest value of th value of the lowest 25% of measurements is called the

[Question ID = 12642]

1. 50% confidence interval [Option ID = 20565]
2. Standard error [Option ID = 20567]
3. Standard deviation [Option ID = 20566]
4. Interquartile range [Option ID = 20568]

Correct Answer :-

- 50% confidence interval [Option ID = 20565]

18) Unidirectional flow of energy in an ecosystem is governed by the

[Question ID = 12672]

1. First Law of thermodynamics [Option ID = 20685]
2. None of these [Option ID = 20688]
3. Second Law of thermodynamics [Option ID = 20686]
4. Both first and second laws of thermodynamics [Option ID = 20687]

Correct Answer :-

- First Law of thermodynamics [Option ID = 20685]

19) A community of species whose niches complement one another is more efficient in its use of resource than an equivalent set of monocultures i

[Question ID = 12636]

1. Niche divergence [Option ID = 20544]
2. Niche gradient [Option ID = 20542]
3. Niche complimentarity [Option ID = 20543]
4. Fundamental niche [Option ID = 20541]

Correct Answer :-

- Fundamental niche [Option ID = 20541]

20) Hardness of minerals is measured in

[Question ID = 12674]

1. Clastic Scale [Option ID = 20695]
2. Talc Scale [Option ID = 20693]
3. Moh's Scale [Option ID = 20694]
4. Beaufort's Scale [Option ID = 20696]

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- Talc Scale [Option ID = 20693]

21) Methemoglobinemia is caused due to pollution of

[Question ID = 12668]

1. Nitrate [Option ID = 20672]
2. Copper [Option ID = 20669]
3. Iron [Option ID = 20670]
4. Mercury [Option ID = 20671]

Correct Answer :-

- Copper [Option ID = 20669]

22) What does the steep slope of a rank-abundance plot indicate? [Question ID = 12639]

1. greater abundance of dominant species in the community [Option ID = 20554]
2. greater abundance of rare species in the community [Option ID = 20555]
3. greater dominance of common species over rare species in the community [Option ID = 20556]
4. greater dominance of rare species over common species in the community [Option ID = 20553]

Correct Answer :-

- greater dominance of rare species over common species in the community [Option ID = 20553]

23) An experiment that demonstrated the importance of spatial heterogeneity in stabilizing predator-prey interactions is called

[Question ID = 12650]

1. Allee's experiment [Option ID = 20597]
2. Huffaker's experiment [Option ID = 20598]
3. Organism interaction experiment [Option ID = 20600]
4. Ecosystem experiment [Option ID = 20599]

Correct Answer :-

- Allee's experiment [Option ID = 20597]

24) Walkley and Black's Rapid Titration Method is used to estimate

[Question ID = 12649]

1. Soil phenolic levels [Option ID = 20594]
2. Soil organic carbon [Option ID = 20595]
3. Soil phosphate levels [Option ID = 20593]
4. Soil microbial activity [Option ID = 20596]

Correct Answer :-

- Soil phosphate levels [Option ID = 20593]

25) When a mixture of *Azospirillum, Azotobacter,* and *Bacillus* was applied to rhizosphere, fixation of atmospheric nitrogen increased. This was due

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[Question ID = 12667]

1. *Azospirillum and Bacillus* [Option ID = 20666]
2. *Azotobacter and Azospirillum* [Option ID = 20668]
3. *Azotobacter and Bacillus* [Option ID = 20667]
4. *Bacillus* [Option ID = 20665]

Correct Answer :-
- *Bacillus* [Option ID = 20665]

26) When a doctor uses a stethoscope to count your pulse rate, the doctor is gathering information by using the_____:

[Question ID = 12644]

1. empirical method [Option ID = 20574]
2. rational method [Option ID = 20573]
3. method of authority [Option ID = 20576]
4. method of intuition [Option ID = 20575]

Correct Answer :-
- rational method [Option ID = 20573]

27) When noxious or dangerous animals advertize the fact by bright, conspicuous colors and patterns this is known as

[Question ID = 12647]

1. Allelopathy [Option ID = 20588]
2. Aposematism [Option ID = 20585]
3. Mimicry [Option ID = 20587]
4. Crypsis [Option ID = 20586]

Correct Answer :-
- Aposematism [Option ID = 20585]

28) Long distance mate attraction in the insect order Orthoptera primarily involves

[Question ID = 12641]

1. Visual cues [Option ID = 20564]
2. Tremulation [Option ID = 20562]
3. Pheromones [Option ID = 20563]
4. Acoustic signals [Option ID = 20561]

Correct Answer :-
- Acoustic signals [Option ID = 20561]

29) "Complete competitors cannot coexist" is true for

[Question ID = 12632]

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1. Primary succession [Option ID = 20525]
2. Character displacement [Option ID = 20528]
3. Secondary succession [Option ID = 20526]
4. Competitive exclusion [Option ID = 20527]

Correct Answer :-

- Primary succession [Option ID = 20525]

30) A plateau phase in growth curve of a population signifies _____.

[Question ID = 12656]

1. Population with an equal number of births and deaths [Option ID = 20622]
2. Population with higher deaths than the births [Option ID = 20623]
3. Population with zero births and high deaths [Option ID = 20624]
4. Population with rapidly growing individuals [Option ID = 20621]

Correct Answer :-

- Population with rapidly growing individuals [Option ID = 20621]

31) *'Naturalization-invasion continuum'* which conceptualizes the various barriers that a plant must overcome to become alien, casual, naturalized,

[Question ID = 12627]

1. Lambers and Poorter, 1999 [Option ID = 20507]
2. Zhou, 2013 [Option ID = 20508]
3. Richardson and Pyšek, 2006 [Option ID = 20505]
4. Simberloff *et al.* , 2012 [Option ID = 20506]

Correct Answer :-

- Richardson and Pyšek, 2006 [Option ID = 20505]

32) According to the "Aichi Biodiversity Targets" which strategic goal and target is pertinent to invasive alien species? [Question ID = 12628]

1. Goal A and Target 3 [Option ID = 20509]
2. Goal B and Target 9 [Option ID = 20510]
3. Goal C and Target 13 [Option ID = 20511]
4. Goal D and Target 16 [Option ID = 20512]

Correct Answer :-

- Goal A and Target 3 [Option ID = 20509]

33) Peptide bonds of which one of the following is not synthesized by ribosomes?

[Question ID = 12663]

1. Phytochelatins [Option ID = 20652]
2. Cytochrome C [Option ID = 20651]
3. Alkaline phosphatase [Option ID = 20650]
4. Salivary amylase [Option ID = 20649]

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Correct Answer :-

- Salivary amylase [Option ID = 20649]

34) Percentage of soil organic matter represented by carbon is

[Question ID = 12669]

1. 72% [Option ID = 20676]
2. 14% [Option ID = 20673]
3. 28% [Option ID = 20674]
4. 58% [Option ID = 20675]

Correct Answer :-

- 14% [Option ID = 20673]

35) "Program MARK" is a popular software used to analyze a variety of ecological data pertaining to breeding success, population size, etc. The und

[Question ID = 12676]

1. Base pair deletions [Option ID = 20703]
2. r and K selection [Option ID = 20704]
3. Lock and key mechanism [Option ID = 20701]
4. Mark-recapture [Option ID = 20702]

Correct Answer :-

- Lock and key mechanism [Option ID = 20701]

36) Who among the following is considered to be the foremost expert on chimpanzees?

[Question ID = 12662]

1. Ernst Mayr [Option ID = 20647]
2. Steve Irwin [Option ID = 20646]
3. Neil Shubin [Option ID = 20648]
4. Jane Goodall [Option ID = 20645]

Correct Answer :-

- Jane Goodall [Option ID = 20645]

37) Closely related species present in the same habitat are likely to experience

[Question ID = 12657]

1. Severe competition [Option ID = 20625]
2. No competition [Option ID = 20627]
3. High cooperation [Option ID = 20628]
4. Low competition [Option ID = 20626]

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- Severe competition [Option ID = 20625]

38) Species are put into groups and then groups are arranged into hierarchies to form a tree like arrangement called dendrogram for the hierarchic through

[Question ID = 12629]

1. Correlation analysis [Option ID = 20515]
2. Regression analysis [Option ID = 20513]
3. Twinspan analysis [Option ID = 20514]
4. Principle component analysis [Option ID = 20516]

Correct Answer :-

- Regression analysis [Option ID = 20513]

39) Null hypothesis and alternative hypothesis are often symbolized by ____ and _____, respectively.

[Question ID = 12655]

1. H1, H0 [Option ID = 20618]
2. H0, H1 [Option ID = 20617]
3. H0a, H0b [Option ID = 20620]
4. H1a, H1b [Option ID = 20619]

Correct Answer :-

- H0, H1 [Option ID = 20617]

40) Which of the following two areas would have greater species diversity?
Area 1: Species A- 10; Species B- 10; Species C- 10
Area 2:Species A- 1; Species B- 1; Species C- 28 [Question ID = 12638]

1. Area 1 and Area 2 have equal diversity [Option ID = 20551]
2. Area 1 and Area 2 have equal species evenness [Option ID = 20552]
3. Area 1 [Option ID = 20549]
4. Area 2 [Option ID = 20550]

Correct Answer :-

- Area 1 [Option ID = 20549]

41) .....is a measure of area of biologically productive land or sea required to produce food, material, and energy. [Question ID = 12

1. Living Planet Index (LPI) [Option ID = 20522]
2. Ecological Foot Print (EF) [Option ID = 20521]
3. Human Development Index (HDI) [Option ID = 20523]
4. Happy Planet Index (HPI) [Option ID = 20524]

Correct Answer :-

- Ecological Foot Print (EF) [Option ID = 20521]

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42) Interplanar spacing used in XRD analysis is calculated using

[Question ID = 12665]

1. First law of Thermodynamics [Option ID = 20657]
2. Second law of Thermodynamics [Option ID = 20658]
3. Brag's law [Option ID = 20659]
4. Newton's first law [Option ID = 20660]

Correct Answer :-

- First law of Thermodynamics [Option ID = 20657]

43) Which one of the following is referred to as nature's pesticide? [Question ID = 12666]

1. Heptachlor [Option ID = 20662]
2. Toxaphene [Option ID = 20663]
3. Aldrin [Option ID = 20661]
4. Pyrethrum [Option ID = 20664]

Correct Answer :-

- Aldrin [Option ID = 20661]

44) Physiognomy is a..... qualitative analytical character of a community.

[Question ID = 12633]

1. Synthetic [Option ID = 20531]
2. Species level [Option ID = 20530]
3. Stand level [Option ID = 20529]
4. Stand and species level [Option ID = 20532]

Correct Answer :-

- Stand level [Option ID = 20529]

45) Geostrophic wind occurs when pressure gradient force balances

[Question ID = 12670]

1. Centripetal force [Option ID = 20679]
2. Coriolis force [Option ID = 20677]
3. Frictional force [Option ID = 20678]
4. None of these [Option ID = 20680]

Correct Answer :-

- Coriolis force [Option ID = 20677]

46) Presenting someone else's ideas or work without their consent or without acknowledgement is

[Question ID = 12661]

1. An act of plagiarism [Option ID = 20643]

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2. An act of betrayal [Option ID = 20641]
3. An act of selfishness [Option ID = 20642]
4. An act of utilitarianism [Option ID = 20644]

Correct Answer :-

- An act of betrayal [Option ID = 20641]

47) The proposers of *'Lotka-Volterra model'* , Vito Volterra and Alfred Lotka were

[Question ID = 12651]

1. Ecologists [Option ID = 20602]
2. Biologists [Option ID = 20604]
3. Environmentalists [Option ID = 20603]
4. Mathematicians [Option ID = 20601]

Correct Answer :-

- Mathematicians [Option ID = 20601]

48) The scholarly Latin abbreviation "et al." stands for

[Question ID = 12660]

1. And remaining [Option ID = 20640]
2. And all [Option ID = 20639]
3. And more [Option ID = 20637]
4. And others [Option ID = 20638]

Correct Answer :-

- And more [Option ID = 20637]

49) The maximum per capita rate of increase achieved by a species under ideal environmental conditions is called the

[Question ID = 12637]

1. inherent rate of increase [Option ID = 20546]
2. inherent growth rate [Option ID = 20547]
3. intrinsic growth rate [Option ID = 20545]
4. intrinsic rate of increase [Option ID = 20548]

Correct Answer :-

- intrinsic growth rate [Option ID = 20545]

50) The newly discovered hominin species, *Homo luzonensis,* was discovered from a cave in

[Question ID = 12658]

1. Cambodia [Option ID = 20630]
2. Indonesia [Option ID = 20632]
3. Philippines [Option ID = 20631]

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4. Laos [Option ID = 20629]

Correct Answer :-

- Laos [Option ID = 20629]

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