

72 Environmental Sciences ICAR SEPT 2022

Topic:- GEN KNOW COMMON PHD

1) Colour of the tag used on certified seed bags is[Question ID = 16958][Question Description = 101_221_GKD_SEP22_Q01]

1. Blue [Option ID = 37829]
2. Purple [Option ID = 37830]
3. White [Option ID = 37831]
4. Golden Yellow [Option ID = 37832]

2) Following are the statements regarding the Usar soil -

- A. It is reclaimed by adding lime.
- B. This soil has pH more than seven.
- C. Paddy crop can be grown in this soil.

Choose the *correct* answer from the options given below:

[Question ID = 16959][Question Description = 102_221_GKD_SEP22_Q02]

1. A and B only [Option ID = 37833]
2. B and C only [Option ID = 37834]
3. C only [Option ID = 37835]
4. A only [Option ID = 37836]

3) When total utility of a commodity increases, marginal utility will be

[Question ID = 16960][Question Description = 103_221_GKD_SEP22_Q03]

1. Negative but increasing
[Option ID = 37837]
2. Positive but decreasing
[Option ID = 37838]
3. Constant
[Option ID = 37839]
4. Either positive or negative
[Option ID = 37840]

4) Where is the headquarter of International Fund for Agriculture Development located?

[Question ID = 16961][Question Description = 104_221_GKD_SEP22_Q04]

1. Vienna, Austria
[Option ID = 37841]
2. Rome, Italy
[Option ID = 37842]
3. New York, USA
[Option ID = 37843]
4. Berlin, Germany
[Option ID = 37844]

5) Mid-Oceanic Ridges are one of the important divisions of the ocean floor. In this respect, point out the incorrect statement regarding the 'Mid-Oceanic Ridges'. [Question ID = 16962][Question Description = 105_221_GKD_SEP22_Q05]

1. It is the largest mountain chain on the surface of the earth [Option ID = 37845]
2. It is a series of interconnected chain within the ocean. [Option ID = 37846]
3. It is characterised by a central rift system [Option ID = 37847]
4. The rift system at the crest is the zone of very low volcanic activity. [Option ID = 37848]

6) Consider the following facts about the union territory of India and point out the one which is incorrect in relation to union territory.[Question ID = 16963][Question Description = 106_221_GKD_SEP22_Q06]

1. These are the areas under the direct control of central government. [Option ID = 37849]
2. Also known as the 'centrally administered territories. [Option ID = 37850]

3. These territories constitute a conspicuous departure from the unitary feature of India. [Option ID = 37851]
4. There is no uniformity in their administrative systems. [Option ID = 37852]

7) Variety of flora and fauna are found in the different types of forest in India. In this regard, species of trees like teak, *sal shisham*, *sandalwood*, etc. are found in which of the following type of forests in India?[Question ID = 16964][Question Description = 107_221_GKD_SEP22_Q07]

1. Tropical evergreen forests [Option ID = 37853]
2. Tropical thorn forests [Option ID = 37854]
3. Tropical deciduous forests [Option ID = 37855]
4. Montane forests [Option ID = 37856]

8) The Marginal Preference Theory of consumption behaviour was proposed by

[Question ID = 16965][Question Description = 108_221_GKD_SEP22_Q08]

1. Armstrong
[Option ID = 37857]
2. J.K.Hicks
[Option ID = 37858]
3. Neumann
[Option ID = 37859]
4. Edmund Cannon
[Option ID = 37860]

9) Point out the incorrect statements regarding the service sector in India.[Question ID = 16966][Question Description = 109_221_GKD_SEP22_Q09]

1. It is the highest contributor to GDP [Option ID = 37861]
2. It requires skilled labour [Option ID = 37862]
3. It is the fastest growing sector [Option ID = 37863]
4. It is restricted to very few sectors. [Option ID = 37864]

10) Consider the statements regarding the agriculture sector in India and point out the incorrect statement.[Question ID = 16967][Question Description = 110_221_GKD_SEP22_Q10]

1. Agriculture sector is the largest employer of workforce [Option ID = 37865]
2. It has contributed to the Gross Value Added (GVA) [Option ID = 37866]
3. Growth in allied sectors is the major drivers of overall growth in the sector. [Option ID = 37867]
4. Minimum Support Price (MSP) policy is used as to promote crop uniformity. [Option ID = 37868]

11) In case of related goods, the cross elasticity of demand is[Question ID = 16968][Question Description = 111_221_GKD_SEP22_Q11]

1. Low [Option ID = 37869]
2. High [Option ID = 37870]
3. Zero [Option ID = 37871]
4. Unity [Option ID = 37872]

12) With reference to organic farming in India, consider the following statements :

- A. The National Programme for Organic Production' (NPOP) is operated under the guidelines and directions of the Union Ministry of Rural Development.
- B. The Agricultural and Processed Food Products Export Development Authority' (APEDA) functions as the Secretariat for the implementation of NPOP.
- C. Sikkim has become India's first fully organic state.

Choose the *correct* answer from the options given below:

[Question ID = 16969][Question Description = 112_221_GKD_SEP22_Q12]

1. A and B only
[Option ID = 37873]
2. B and C only
[Option ID = 37874]
3. C only
[Option ID = 37875]
4. A, B and C

[Option ID = 37876]

13) With reference to the circumstances in Indian agriculture, the concept of "Conservation Agriculture" assumes significance. Which of the following falls under the Conservation Agriculture ?

- A. Avoiding the monoculture practices.
- B. Adopting minimum tillage.
- C. Avoiding the cultivation of plantation crops.
- D. Using crop residues to cover soil surface.
- E. Adopting spatial and temporal crop sequencing/ crop rotations.

Choose the *correct* answer from the options given below:

[Question ID = 16970][Question Description = 113_221_GKD_SEP22_Q13]

- 1. A, C and D only [Option ID = 37877]
- 2. B, C, D and E only [Option ID = 37878]
- 3. B, D and E only [Option ID = 37879]
- 4. A, B, C and E only [Option ID = 37880]

14) Consumers are likely to get a variety of goods in which kind of market competition[Question ID = 16971][Question Description = 114_221_GKD_SEP22_Q14]

- 1. Monopoly [Option ID = 37881]
- 2. Duopoly [Option ID = 37882]
- 3. Oligopoly [Option ID = 37883]
- 4. Monopolistic [Option ID = 37884]

15) What is the correct chronological order of the following laws enacted for the conservation and protection of environment ?

- A. Environment (Protection) Act.
- B. Water (Prevention & Control of Pollution) Act.
- C. Air (Prevention & Control of pollution) Act.
- D. National Green Tribunal Act.

Choose the *correct* answer from the options given below:

[Question ID = 16972][Question Description = 115_221_GKD_SEP22_Q15]

- 1. B, C, A, D [Option ID = 37885]
- 2. A, B, C, D [Option ID = 37886]
- 3. C, B, A, D [Option ID = 37887]
- 4. D, C, B, A [Option ID = 37888]

16) The scientific study of soil is[Question ID = 16973][Question Description = 116_221_GKD_SEP22_Q16]

- 1. Earth Study [Option ID = 37889]
- 2. Soil Science [Option ID = 37890]
- 3. Pedology [Option ID = 37891]
- 4. Soil Chemistry [Option ID = 37892]

17) *Triticum aestivum*, the common bread wheat is -

[Question ID = 16974][Question Description = 117_221_GKD_SEP22_Q17]

- 1. Tetraploid
[Option ID = 37893]
- 2. Hexaploid
[Option ID = 37894]
- 3. Haploid
[Option ID = 37895]
- 4. Diploid
[Option ID = 37896]

18) Sectoral inflation refers to[Question ID = 16975][Question Description = 118_221_GKD_SEP22_Q18]

- 1. Running inflation [Option ID = 37897]

2. Comprehensive inflation [Option ID = 37898]
3. Sporadic inflation [Option ID = 37899]
4. Creeping inflation [Option ID = 37900]

19) Keynes Liquidity trap refers to[Question ID = 16976][Question Description = 119_221_GKD_SEP22_Q19]

1. Speculative demand for money [Option ID = 37901]
2. Transactions motive of money is inelastic [Option ID = 37902]
3. Precautionary motive of money is inelastic [Option ID = 37903]
4. Transactions motive of money is constant [Option ID = 37904]

20) A business is solvent if[Question ID = 16977][Question Description = 120_221_GKD_SEP22_Q20]

1. Total receipts exceed total expenditures [Option ID = 37905]
2. Total debt exceeds total equity [Option ID = 37906]
3. Total sales exceed total cash expense [Option ID = 37907]
4. Total assets exceed total liabilities [Option ID = 37908]

Topic:- Natural Resource Mgmt 1_PHD

1) A tensiometer reading of 10-25 centibar indicates

[Question ID = 15953][Question Description = 101_148_NR1_SEP22_Q01]

1. Saturation water content [Option ID = 33809]
2. Field capacity water content [Option ID = 33810]
3. Water content between field capacity and wilting point [Option ID = 33811]
4. Wilting point water content [Option ID = 33812]

2) Following are the facts about soil temperature

- A. It oscillates as a pure harmonic function of time around an average value
- B. Soil temperature and air temperature changes happen at the same pace
- C. Application of charcoal over the surface enhance the soil temperature
- D. Conduction is the primary mode of heat transfer in soil

Choose the *correct* answer from the options given below:

[Question ID = 15954][Question Description = 102_148_NR1_SEP22_Q02]

1. A, B and D only [Option ID = 33813]
2. A and C only [Option ID = 33814]
3. B, C and D only [Option ID = 33815]
4. A, C and D only [Option ID = 33816]

3) Given below are two statements, one is labelled as Assertion A and the other is labelled as Reason R

Assertion A : When a sandy layer is overlying a clay loam layer, a “perched water table” develops in the sandy layer during infiltration, just above its boundary with the clay loam layer

Reason R : Sandy soil has higher saturated hydraulic conductivity compared to clay loam layer

In light of the above statements, choose the *correct* answer from the options given below

[Question ID = 15955][Question Description = 103_148_NR1_SEP22_Q03]

1. Both A and R are true and R is the correct explanation of A [Option ID = 33817]
2. Both A and R are true but R is NOT the correct explanation of A [Option ID = 33818]
3. A is true but R is false [Option ID = 33819]
4. A is false but R is true [Option ID = 33820]

4) Which of the following is NOT true?

[Question ID = 15956][Question Description = 104_148_NR1_SEP22_Q04]

1. Emissivity relates to Planck's law [Option ID = 33821]
2. Emissivity has no unit [Option ID = 33822]
3. For a perfect black body, emissivity has the highest value [Option ID = 33823]
4. The emissivity of soil decreases when its water content becomes higher [Option ID = 33824]

5) Which of the following is NOT an active remote sensing sensor.[Question ID = 15957][Question Description = 105_148_NR1_SEP22_Q05]

1. Radar [Option ID = 33825]
2. Lidar [Option ID = 33826]

3. SONAR [Option ID = 33827]
4. Microwave radiometer [Option ID = 33828]

6) The earth behaves as a blackbody with mean average temperature of[Question ID = 15958][Question Description = 106_148_NR1_SEP22_Q06]

1. 65 °F [Option ID = 33829]
2. 300 °K [Option ID = 33830]
3. 15 °C [Option ID = 33831]
4. 25 °C [Option ID = 33832]

7) Which of the following thermometers placed inside the Stevenson screen in a meteorological observatory is used to measure humidity?

[Question ID = 15959][Question Description = 107_148_NR1_SEP22_Q07]

1. Wet bulb thermometer and dry bulb thermometer [Option ID = 33833]
2. Wet bulb thermometer, dry bulb thermometer and normal thermometer [Option ID = 33834]
3. Wet bulb thermometer and normal thermometer [Option ID = 33835]
4. Wet bulb thermometer, dry bulb thermometer, maximum thermometer and minimum thermometer [Option ID = 33836]

8) Which of the following instrument is used to measure global solar radiation?[Question ID = 15960][Question Description = 108_148_NR1_SEP22_Q08]

1. Pyrheliometer [Option ID = 33837]
2. Pyranometer [Option ID = 33838]
3. Pyradiometer [Option ID = 33839]
4. Albedometer [Option ID = 33840]

9) In relational database management system (RDBMS) of geographical information system (GIS) environment, number of rows and columns are called as[Question ID = 15961][Question Description = 109_148_NR1_SEP22_Q09]

1. Attribute and tuple, respectively [Option ID = 33841]
2. Cardinality and degree, respectively [Option ID = 33842]
3. Tuple and cardinality, respectively [Option ID = 33843]
4. Tuple and attribute, respectively [Option ID = 33844]

10) Which one is correct in cylindrical equal area projection system, which is also known as Lambert's projection system

[Question ID = 15962][Question Description = 110_148_NR1_SEP22_Q10]

1. View of pole is distorted [Option ID = 33845]
2. The shape of the area at high latitude is distorted [Option ID = 33846]
3. Both area and all four edges are distorted [Option ID = 33847]
4. All four edges are distorted [Option ID = 33848]

11) The time interval after a pulse has occurred during which the counter is insensitive to further ionizing events is called as[Question ID = 15963][Question Description = 111_148_NR1_SEP22_Q11]

1. Dead time [Option ID = 33849]
2. Resolving time [Option ID = 33850]
3. Ionizing time [Option ID = 33851]
4. Sensitive time [Option ID = 33852]

12) First law of thermodynamics for isothermal expansion of an ideal gas can be expressed as

[Question ID = 15964][Question Description = 112_148_NR1_SEP22_Q12]

1. $\Delta Q = \Delta W$ [Option ID = 33853]
2. $\Delta Q = \Delta U$ [Option ID = 33854]
3. $\Delta U = \Delta W$ [Option ID = 33855]
4. $\Delta Q = \Delta T$ [Option ID = 33856]

13) The statement "two systems in thermal equilibrium with a third system separately are in thermal equilibrium with each other" represents

[Question ID = 15965][Question Description = 113_148_NR1_SEP22_Q13]

1. First law of thermodynamics [Option ID = 33857]
2. Second law of thermodynamics [Option ID = 33858]
3. Zeroth law of thermodynamics [Option ID = 33859]
4. Third law of thermodynamics [Option ID = 33860]

14) Match List I with List II

List I	List II
Physical quantity	SI unit
A. Momentum	I. Volt
B. Viscosity	II. kg m^{-3}
C. Density	III. $\text{kg m}^{-1}\text{s}^{-1}$
D. Electromotive force	IV. kg ms^{-1}

Choose the correct answer from the options given below:

[Question ID = 15966][Question Description = 114_148_NR1_SEP22_Q14]

1. A-IV, B-III, C-II, D-I [Option ID = 33861]
2. A-III, B-I, C-IV, D-II [Option ID = 33862]
3. A-III, B-II, C- IV, D-I [Option ID = 33863]
4. A-I, B-II, C-III, D-IV [Option ID = 33864]

15) Given below are two statements, one is labelled as Assertion A and the other is labelled as Reason R
Assertion A : Characteristic X-rays are produced with specific energies

Reason R : Continuous X-rays have broad spectrum of photon energies

In light of the above statements, choose the *correct* answer from the options given below

[Question ID = 15967][Question Description = 115_148_NR1_SEP22_Q15]

1. Both A and R are true and R is the correct explanation of A [Option ID = 33865]
2. Both A and R are true but R is NOT the correct explanation of A [Option ID = 33866]
3. A is true but R is false [Option ID = 33867]
4. A is false but R is true [Option ID = 33868]

16) Due to rising CO_2 in the atmosphere, the C/N ratio of C3 plants is likely to [Question ID = 15968][Question Description = 116_148_NR1_SEP22_Q16]

1. Increase [Option ID = 33869]
2. Decrease [Option ID = 33870]
3. No change [Option ID = 33871]
4. First decrease then increase [Option ID = 33872]

17) Crop model 'CERES' stands for [Question ID = 15969][Question Description = 117_148_NR1_SEP22_Q17]

1. Crop Environment Resource Synthesis [Option ID = 33873]
2. Crop Environment Resource Simulation [Option ID = 33874]
3. Crop Engineered for Resource Synthesis [Option ID = 33875]
4. Crop Environment Interaction Research [Option ID = 33876]

18) Large Aperture Scientillometer directly measures [Question ID = 15970][Question Description = 118_148_NR1_SEP22_Q18]

1. Latent heat flux [Option ID = 33877]
2. Sensible heat flux [Option ID = 33878]
3. Water Vapour flux [Option ID = 33879]
4. Methane flux [Option ID = 33880]

19) Practical measurement of gaseous flux in turbulent atmosphere requires at the order of [Question ID = 15971][Question Description = 119_148_NR1_SEP22_Q19]

1. One minute [Option ID = 33881]
2. One second [Option ID = 33882]
3. One mili-second [Option ID = 33883]
4. One-tenth of second [Option ID = 33884]

20) IBSNAT stands for [Question ID = 15972][Question Description = 120_148_NR1_SEP22_Q20]

1. International Beureau of Sites Network for Agrotechnology Transfer [Option ID = 33885]
2. International Benchmark Sites Network for Agrotechnology Transfer [Option ID = 33886]
3. International Books System Network for Agrotechnology Transfer [Option ID = 33887]
4. International Books System Network for Agroecology Transfer

[Option ID = 33888]

21) Which type of relationship is there between El Nino and Indian summer monsoon rainfall in general? [Question ID = 15973][Question Description = 121_148_NR1_SEP22_Q21]

1. Positive [Option ID = 33889]
2. Negative [Option ID = 33890]
3. Neutral [Option ID = 33891]

4. Nonsense [Option ID = 33892]

22) What information is given through 'Damini' App of IMD ?

A. Lightning and thunderstorm

B. Name of the clouds

C. Rainfall analysis

D. Weather based Agroadvisory

Choose the *correct* answer from the options given below:

[Question ID = 15974][Question Description = 122_148_NR1_SEP22_Q22]

1. A only [Option ID = 33893]
2. B and C only [Option ID = 33894]
3. C and D only [Option ID = 33895]
4. A and D only [Option ID = 33896]

23) What is the normal date of onset of south west monsoon at mainland of India?[Question ID = 15975][Question Description = 123_148_NR1_SEP22_Q23]

1. 10th May [Option ID = 33897]
2. 25th May [Option ID = 33898]
3. 1st June [Option ID = 33899]
4. 7th June [Option ID = 33900]

24) By which process frosting occur on leaves of the plant?[Question ID = 15976][Question Description = 124_148_NR1_SEP22_Q24]

1. Condensation [Option ID = 33901]
2. Sublimation [Option ID = 33902]
3. Evaporation [Option ID = 33903]
4. Transpiration [Option ID = 33904]

25) By which instrument the outgoing longwave radiation from the Earth surface can be measured?[Question ID = 15977][Question Description = 125_148_NR1_SEP22_Q25]

1. Pyranometer [Option ID = 33905]
2. Pyrhelimeter [Option ID = 33906]
3. Pyrgeometer [Option ID = 33907]
4. Line Quantum sensor [Option ID = 33908]

26) About 50% of atmospheric mass lies within the altitude of

[Question ID = 15978][Question Description = 126_148_NR1_SEP22_Q26]

1. 10.4 km [Option ID = 33909]
2. 15.5 km [Option ID = 33910]
3. 5.6 km [Option ID = 33911]
4. 22.4 km [Option ID = 33912]

27) The word "klima" means and derived from

[Question ID = 15979][Question Description = 127_148_NR1_SEP22_Q27]

1. Atmosphere, Greek word [Option ID = 33913]
2. Slope, Greek word [Option ID = 33914]
3. Earth, Latin word [Option ID = 33915]
4. Climate, Latin word [Option ID = 33916]

28) Match List I with List II

List I	List II
Cloud	Characteristics
A. Cirrus	I. Silky appearance
B. Altostratus	II. Medium cloud
C. Nimbostratus	III. Cloud with vertical development
D. Cumulus	IV. Rainfall producing cloud

Choose the correct answer from the options given below:

[Question ID = 15980][Question Description = 128_148_NR1_SEP22_Q28]

1. A - I, B - II, C - IV, D - III [Option ID = 33917]

2. A - II, B - IV, C - I, D - III [Option ID = 33918]
3. A - IV, B - II, C - III, D - I [Option ID = 33919]
4. A - II, B - IV, C - III, D - I [Option ID = 33920]

29) Monitoring meteorological drought using SPI (Standardized Precipitation Index) requires

[Question ID = 15981][Question Description = 129_148_NR1_SEP22_Q29]

1. Moisture data [Option ID = 33921]
2. Precipitation data [Option ID = 33922]
3. Rainfall and humidity data [Option ID = 33923]
4. Rainfall and evapotranspiration data [Option ID = 33924]

30) Which of the following wind system or zone is observed between 5 degree North to 5 degree South Latitude?[Question ID = 15982][Question Description = 130_148_NR1_SEP22_Q30]

1. Trade wind belt [Option ID = 33925]
2. Easterlies [Option ID = 33926]
3. Westerlies [Option ID = 33927]
4. Doldrum [Option ID = 33928]

31) The first issue of the journal 'The Indian Forester' was published in which year?

[Question ID = 15983][Question Description = 131_148_NR1_SEP22_Q31]

1. December, 1863 [Option ID = 33929]
2. July, 1875 [Option ID = 33930]
3. January, 1906 [Option ID = 33931]
4. October, 1827 [Option ID = 33932]

32) As per the India State of Forest Report-2021, highest average net annual gains in forest cover for the period 2010-2020 has been recorded in the country:[Question ID = 15984][Question Description = 132_148_NR1_SEP22_Q32]

1. Australia [Option ID = 33933]
2. Pakistan [Option ID = 33934]
3. China [Option ID = 33935]
4. India [Option ID = 33936]

33) Given below are two statements

Statement I: The Indian Forest (Amendment) Bill, 2017 was introduced in Lok Sabha by Mr. Harsh Vardhan, then Minister of Environment, Forest, and Climate Change on December 18, 2017.

Statement II: The Bill replaces the Indian Forest (Amendment) Ordinance, 2017 and amends the Indian Forest Act, 1927. The Act consolidates laws relating to forests, transit of forest-produce and the duty to be levied on them.

In light of the above statements, choose the *correct* answer from the options given below

[Question ID = 15985][Question Description = 133_148_NR1_SEP22_Q33]

1. Both Statement I and Statement II are true [Option ID = 33937]
2. Both Statement I and Statement II are false [Option ID = 33938]
3. Statement I is true but Statement II is false [Option ID = 33939]
4. Statement I is false but Statement II is true [Option ID = 33940]

34) Forestry Statistics India- 2021 an important document compilation of important time series data on forestry aspects from 2010-11 to 2021-21 and is published by

[Question ID = 15986][Question Description = 134_148_NR1_SEP22_Q34]

1. Forestry Survey of India, Dehradun [Option ID = 33941]
2. Indian Council of Forestry Research and Education, Dehradun [Option ID = 33942]
3. National Sample Survey Organization, Govt. of India [Option ID = 33943]
4. Regional office, World Agroforestry Centre, New Delhi [Option ID = 33944]

35) Match List I with List II

List I	List II
International Day of Forests	Theme
A. 2022	I. Forests and Biodiversity: Too precious to loose
B. 2021	II. Forests and Education
C. 2020	III. Forest restoration: a path to recovery and well being
D. 2019	IV. Forests and sustainable production and consumption

Choose the correct answer from the options given below:

[Question ID = 15987][Question Description = 135_148_NR1_SEP22_Q35]

1. A - I, B - II, C - III, D - IV [Option ID = 33945]
2. A - IV, B - III, C - I, D - II [Option ID = 33946]
3. A - III, B - I, C - II, D - IV [Option ID = 33947]
4. A - II, B - IV, C - III, D - I [Option ID = 33948]

36) Forest Research Institute (FRI), Dehradun has its roots in the erstwhile Imperial Forest Research Institute established in the year

[Question ID = 15988][Question Description = 136_148_NR1_SEP22_Q36]

1. 1894 [Option ID = 33949]
2. 1906 [Option ID = 33950]
3. 1927 [Option ID = 33951]
4. 1947 [Option ID = 33952]

37) The headquarter of International Tropical Timber Organization (ITTO) is located at

[Question ID = 15989][Question Description = 137_148_NR1_SEP22_Q37]

1. Vienna, Austria [Option ID = 33953]
2. Sydney, Australia [Option ID = 33954]
3. Yokohama, Japan [Option ID = 33955]
4. Nairobi, Kenya [Option ID = 33956]

38) Based on the analysis of robust data pertaining to forest fires for fairly long period as reported in India State of Forest Report (ISFR) 2021, ____ % of the forest cover of the country is in the category of 'less fire prone'.

[Question ID = 15990][Question Description = 138_148_NR1_SEP22_Q38]

1. 64.54 [Option ID = 33957]
2. 53.39 [Option ID = 33958]
3. 37.67 [Option ID = 33959]
4. 23.59 [Option ID = 33960]

39) Advanced Research Centre for Bamboo and Rattan is located at.....[Question ID = 15991][Question Description = 139_148_NR1_SEP22_Q39]

1. Aizawal, Mizoram [Option ID = 33961]
2. Barapani, Meghalaya [Option ID = 33962]
3. Jorhat, Assam [Option ID = 33963]
4. Imphal, Manipur [Option ID = 33964]

40) Which of the following protocol is related to ozone depletion?[Question ID = 15992][Question Description = 140_148_NR1_SEP22_Q40]

1. Copenhagen Protocol [Option ID = 33965]
2. Kyoto Protocol [Option ID = 33966]
3. Montreal Protocol [Option ID = 33967]
4. Doha Protocol [Option ID = 33968]

41) Eco-auditing focuses on[Question ID = 15993][Question Description = 141_148_NR1_SEP22_Q41]

1. Assessment of actual effects of existing activities [Option ID = 33969]
2. Assessment of project decisions [Option ID = 33970]
3. Policy assessment [Option ID = 33971]
4. Post project assessment [Option ID = 33972]

42) Under the Climate Change Action Plan of Government of India, which of the renewable source of energy has been identified as a priority for exploitation?[Question ID = 15994][Question Description = 142_148_NR1_SEP22_Q42]

1. Solar energy [Option ID = 33973]
2. Wind energy [Option ID = 33974]
3. Geothermal energy [Option ID = 33975]
4. Tidal energy [Option ID = 33976]

43) According to the Bureau of Indian Standards (BIS), the upper limit of total dissolved solids (TDS) levels in drinking water supply should not exceed[Question ID = 15995][Question Description = 143_148_NR1_SEP22_Q43]

1. 250 ppm [Option ID = 33977]
2. 500 ppm [Option ID = 33978]
3. 350 ppm [Option ID = 33979]
4. 600 ppm [Option ID = 33980]

44) Michael Carsson in her book Silent Spring has raised concern on[Question ID = 15996][Question Description = 144_148_NR1_SEP22_Q44]

1. Economical & social impacts [Option ID = 33981]
2. Deforestation [Option ID = 33982]
3. Climate Change [Option ID = 33983]
4. Environmental harm caused by the indiscriminate use of pesticides [Option ID = 33984]

45) Which one of the following air pollution control device has the highest efficiency in controlling dust?[Question ID = 15997][Question Description = 145_148_NR1_SEP22_Q45]

1. Wet Scruber [Option ID = 33985]
2. Electrostatic precipitator [Option ID = 33986]
3. Venturi Scruber [Option ID = 33987]
4. Cyclonic spray scrubber [Option ID = 33988]

46) In which year the Ganga Action Plan (GAP) was launched?[Question ID = 15998][Question Description = 146_148_NR1_SEP22_Q46]

1. 1985 [Option ID = 33989]
2. 1987 [Option ID = 33990]
3. 1990 [Option ID = 33991]
4. 1995 [Option ID = 33992]

47) Seawater is a solution of?

[Question ID = 15999][Question Description = 147_148_NR1_SEP22_Q47]

1. 0.5 N NaCl and 0.05 N MnSO_4 [Option ID = 33993]
2. 0.5 N NaCl and 0.05 N MgSO_4 [Option ID = 33994]
3. 0.5 M NaCl and 0.05 M MnSO_4 [Option ID = 33995]
4. 0.5 M NaCl and 0.05 M MgSO_4 [Option ID = 33996]

48) In a catalytic converter, what is the correct order of reactions?

[Question ID = 16000][Question Description = 148_148_NR1_SEP22_Q48]

1. First reduction (NO) and after oxidation (HCs) [Option ID = 33997]
2. First oxidation (NO) and after reduction (HCs) [Option ID = 33998]
3. First oxidation (HCs) and after Reduction (NO) [Option ID = 33999]
4. First reduction (HCs) and after oxidation (NO) [Option ID = 34000]

49) Which detector is used for the analysis of peroxyacetyl nitrate (PAN) in gas chromatography?[Question ID = 16001][Question Description = 149_148_NR1_SEP22_Q49]

1. Flame ionization detector (FID) [Option ID = 34001]
2. Electron capture detector (ECD) [Option ID = 34002]
3. Flame photometric detector (FPD) [Option ID = 34003]
4. Thermal conductivity detector (TCD) [Option ID = 34004]

50) Which pollutant is responsible for the hardening of rubber?

[Question ID = 16002][Question Description = 150_148_NR1_SEP22_Q50]

1. Ozone [Option ID = 34005]
2. Peroxyacetyl nitrate [Option ID = 34006]
3. SO_2 [Option ID = 34007]
4. Hydrocarbons [Option ID = 34008]

Topic:- 72 Environmental Sciences_PHD

1) The Gaussian plume model is the most common air pollution model

A. Generally used for the point source

B. Assume the windspeed is constant both in time and variable with elevation

C. Suitable for flat terrain

Choose the correct answer from the options given below:

[Question ID = 16908][Question Description = 101_151_EVS_SEP22_Q01]

1. A and B only [Option ID = 37629]
2. A and C only [Option ID = 37630]
3. B and C only [Option ID = 37631]
4. A, B and C [Option ID = 37632]

2) Given below are two statements, one is labelled as Assertion A and the other is labelled as Reason R

Assertion A : Radon is an indoor air pollutant.

Reason R : Radon is a radioactive gas that is part of a natural decay chain.

In light of the above statements, choose the *correct* answer from the options given below

[Question ID = 16909][Question Description = 102_151_EVS_SEP22_Q02]

1. Both A and R are true and R is the correct explanation of A [Option ID = 37633]
2. Both A and R are true but R is NOT the correct explanation of A [Option ID = 37634]
3. A is true but R is false [Option ID = 37635]
4. A is false but R is true [Option ID = 37636]

3) Match the following Convention on Biological Diversity (CBD) Conference of the parties (COP) with focused area

Match List I with List II

List I	List II
Conference of the parties	Focused area
A. COP 4	I. Aichi targets
B. COP 6	II. Agricultural biodiversity
C. COP 9	III. Forest ecosystem
D. COP 10	IV. Inland water ecosystem

Choose the correct answer from the options given below:

[Question ID = 16910][Question Description = 103_151_EVS_SEP22_Q03]

1. A-IV, B-I, C-III, D-II [Option ID = 37637]
2. A-IV, B-III, C-II, D-I [Option ID = 37638]
3. A-IV, B-I, C-II, D-III [Option ID = 37639]
4. A-IV, B-II, C-III, D-I [Option ID = 37640]

4) What is the correct increasing order of atmospheric lifetime of halocarbons?

[Question ID = 16911][Question Description = 104_151_EVS_SEP22_Q04]

1. $\text{CHF}_2\text{Cl} < \text{CCl}_4 > \text{CFCl}_3 < \text{CF}_4$

[Option ID = 37641]

2. $\text{CCl}_4 < \text{CHF}_2\text{Cl} < \text{CFCl}_3 < \text{CF}_4$

[Option ID = 37642]

3. $\text{CF}_4 < \text{CHF}_2\text{Cl} < \text{CCl}_4 < \text{CFCl}_3$

[Option ID = 37643]

4. $\text{CFCl}_3 < \text{CHF}_2\text{Cl} < \text{CCl}_4 < \text{CF}_4$

[Option ID = 37644]

5) What are the CO and HC+NO_x emission norms for passenger cars fixed in BS-IV?

[Question ID = 16912][Question Description = 105_151_EVS_SEP22_Q05]

1. 2.3 g/km & 0.35 g/km [Option ID = 37645]
2. 2.2 g/km & 0.50 g/km [Option ID = 37646]
3. 1 g/km & 0.18 g/km [Option ID = 37647]
4. 1 g/km & 0.97 g/km [Option ID = 37648]

6) Who coined the term ecological succession?

[Question ID = 16913][Question Description = 106_151_EVS_SEP22_Q06]

1. E. P. Odum [Option ID = 37649]
2. Ragnar Hult [Option ID = 37650]
3. Clement [Option ID = 37651]
4. E. Haeckel [Option ID = 37652]

7) Which of the following is the correct order of the components in fly ash from coal combustion?

[Question ID = 16914][Question Description = 107_151_EVS_SEP22_Q07]

1. $\text{SiO}_2 > \text{K}_2\text{O} > \text{Al}_2\text{O}_3 > \text{Fe}_2\text{O}_3$ [Option ID = 37653]
2. $\text{SiO}_2 > \text{Al}_2\text{O}_3 > \text{Fe}_2\text{O}_3 > \text{K}_2\text{O}$ [Option ID = 37654]
3. $\text{SiO}_2 > \text{Al}_2\text{O}_3 > \text{K}_2\text{O} > \text{Fe}_2\text{O}_3$ [Option ID = 37655]
4. $\text{SiO}_2 > \text{Fe}_2\text{O}_3 > \text{K}_2\text{O} > \text{Al}_2\text{O}_3$ [Option ID = 37656]

8) All the statements are true regarding soil and water contamination related problems except

[Question ID = 16915][Question Description = 108_151_EVS_SEP22_Q08]

1. Methaemoglobinemia due to drinking of nitrate contaminated water [Option ID = 37657]
2. Eutrophication due to accumulation of N & P in water bodies [Option ID = 37658]
3. *Itai-itai* disease due to eating of rice and drinking water contaminated with cadmium [Option ID = 37659]
4. Minamata disease due to ingestion of fish contaminated with methylcobalamin [Option ID = 37660]

9) Sometimes due to alteration in local conditions such as soil properties, the process of succession becomes diverted in different directions, known as

[Question ID = 16916][Question Description = 109_151_EVS_SEP22_Q09]

1. Deflected succession [Option ID = 37661]
2. Retrogressive succession [Option ID = 37662]
3. Heterotrophic succession [Option ID = 37663]
4. Seasonal succession [Option ID = 37664]

10) The ISO 22000 standard related to?

[Question ID = 16917][Question Description = 110_151_EVS_SEP22_Q10]

1. Food safety management [Option ID = 37665]
2. Organization management [Option ID = 37666]
3. Energy management [Option ID = 37667]
4. Guiding principles for environmental labels [Option ID = 37668]

11) What is the correct order of successive stages in the invasion process during succession?

[Question ID = 16918][Question Description = 111_151_EVS_SEP22_Q11]

1. Migration → Ecesis → Aggregation [Option ID = 37669]
2. Ecesis → Migration → Aggregation [Option ID = 37670]
3. Ecesis → Aggregation → Migration [Option ID = 37671]
4. Aggregation → Migration → Ecesis [Option ID = 37672]

12) Which one is correct relation between alpha (α), beta (β) and gamma biodiversity (γ)?

[Question ID = 16919][Question Description = 112_151_EVS_SEP22_Q12]

1. $\gamma = \alpha / \beta$ [Option ID = 37673]
2. $\gamma = \alpha + \beta$ [Option ID = 37674]
3. $\gamma = \alpha \times \beta$ [Option ID = 37675]
4. $\gamma = \beta / \alpha$ [Option ID = 37676]

13) Given below are two statements, one is labelled as Assertion A and the other is labelled as Reason R

Assertion A : Over 80% of total CO emissions are from the transportation sector.

Reason R : When CO inhaled, it readily binds to haemoglobin to form carboxyhaemoglobin (COHb).

In light of the above statements, choose the *correct* answer from the options given below

[Question ID = 16920][Question Description = 113_151_EVS_SEP22_Q13]

1. Both A and R are true and R is the correct explanation of A [Option ID = 37677]
2. Both A and R are true but R is NOT the correct explanation of A [Option ID = 37678]
3. A is true but R is false [Option ID = 37679]
4. A is false but R is true [Option ID = 37680]

14) The change in diversity along major climatic or other physical gradients in a large landscape known as

[Question ID = 16921][Question Description = 114_151_EVS_SEP22_Q14]

1. Alpha diversity [Option ID = 37681]
2. Beta diversity [Option ID = 37682]
3. Gamma diversity [Option ID = 37683]
4. Delta diversity [Option ID = 37684]

15) Given below are two statements, one is labelled as Assertion A and the other is labelled as Reason R

Assertion A : Fluidized-bed combustion (FBC) is one of the most promising clean coal technologies.

Reason R : In FBC boiler, crushed coal mixed with limestone is held in suspension by fast rising air injected from the bottom of the bed.

In light of the above statements, choose the *correct* answer from the options given below

[Question ID = 16922][Question Description = 115_151_EVS_SEP22_Q15]

1. Both A and R are true and R is the correct explanation of A [Option ID = 37685]
2. Both A and R are true but R is NOT the correct explanation of A [Option ID = 37686]
3. A is true but R is false [Option ID = 37687]
4. A is false but R is true [Option ID = 37688]

16) The ratio between energy flow at different points along a food chain expressed as percentage is called?

[Question ID = 16923][Question Description = 116_151_EVS_SEP22_Q16]

1. Ecological efficiency [Option ID = 37689]
2. Energy efficiency [Option ID = 37690]
3. Ecosystem efficiency [Option ID = 37691]
4. Habitat efficiency [Option ID = 37692]

17) Which one is NOT a primary air pollutant?

[Question ID = 16924][Question Description = 117_151_EVS_SEP22_Q17]

1. H_2S [Option ID = 37693]
2. SiF_4 [Option ID = 37694]
3. $\text{HF}_{(g)}$ [Option ID = 37695]
4. H_2CO_3 [Option ID = 37696]

18) Which one is correct about ISO 14000?

[Question ID = 16925][Question Description = 118_151_EVS_SEP22_Q18]

1. Guide to Environmental management Principles, systems and supporting techniques [Option ID = 37697]
2. Environmental management system-specification with guidance for use [Option ID = 37698]
3. Guidelines for Environmental Auditing [Option ID = 37699]
4. Environmental Labeling [Option ID = 37700]

19) Match List I with List II

List I	List II
Disaster	Agency for early warning
A. Cyclone	I. India Meteorological Department, New Delhi
B. Tsunami	II. Central Water Commission (CWC)
C. Floods	III. Indian National Centre for Ocean Information Services, Hyderabad
D. Landslides	IV. Geological Survey of India

Choose the correct answer from the options given below:

[Question ID = 16926][Question Description = 119_151_EVS_SEP22_Q19]

1. A -I , B -III , C -IV , D -II [Option ID = 37701]
2. A -IV , B -III , C -I , D -II [Option ID = 37702]
3. A -III , B -IV , C -I , D -II [Option ID = 37703]
4. A -I , B -III , C -II , D -IV [Option ID = 37704]

20) How much chlorines are sufficient to disinfect one litre of water?

[Question ID = 16927][Question Description = 120_151_EVS_SEP22_Q20]

1. 0.2 mg [Option ID = 37705]
2. 0.7 mg [Option ID = 37706]
3. 1.0 mg [Option ID = 37707]
4. 1.2 mg [Option ID = 37708]

21) The plume rise during unstable conditions is?

[Question ID = 16928][Question Description = 121_151_EVS_SEP22_Q21]

1. Directly proportional to buoyancy flux parameter ($F^{0.5}$) [Option ID = 37709]
2. Directly proportional to buoyancy flux parameter (F^1) [Option ID = 37710]
3. Directly proportional to buoyancy flux parameter ($F^{1/3}$) [Option ID = 37711]
4. Directly proportional to buoyancy flux parameter ($F^{2/3}$) [Option ID = 37712]

22) Which form of nitrogen is non-reactive nitrogen species?

[Question ID = 16929][Question Description = 122_151_EVS_SEP22_Q22]

1. NH_3 [Option ID = 37713]
2. NO_3^- [Option ID = 37714]
3. N_2O [Option ID = 37715]
4. N_2 [Option ID = 37716]

23) Which greenhouse gas (GHG) has the highest global warming potential (GWP)?

[Question ID = 16930][Question Description = 123_151_EVS_SEP22_Q23]

1. SF_6 [Option ID = 37717]
2. PFCs [Option ID = 37718]
3. HFCs [Option ID = 37719]
4. SF_4 [Option ID = 37720]

24) On which day, MoEFCC promulgated an EIA notification making Environmental Clearance (EC) mandatory for expansion or modernization of any activity or for setting up new projects listed in Schedule 1 of the notification?

[Question ID = 16931][Question Description = 124_151_EVS_SEP22_Q24]

1. January 1994 [Option ID = 37721]
2. September 1994 [Option ID = 37722]
3. January 2006 [Option ID = 37723]
4. September 2006 [Option ID = 37724]

25) Given below are two statements

Statement I: Exostosis is a malformation on the bone surface.

Statement II: Arsenic contamination in drinking water is responsible for Exostosis.

In light of the above statements, choose the *most appropriate* answer from the options given below

[Question ID = 16932][Question Description = 125_151_EVS_SEP22_Q25]

1. Both Statement I and Statement II are correct [Option ID = 37725]
2. Both Statement I and Statement II are incorrect [Option ID = 37726]
3. Statement I is correct but Statement II is incorrect [Option ID = 37727]
4. Statement I is incorrect but Statement II is correct [Option ID = 37728]

26) What are the recommended noise levels as per World Health Organization for daytime and nighttime respectively?

[Question ID = 16933][Question Description = 126_151_EVS_SEP22_Q26]

1. 45 and 35 dB [Option ID = 37729]
2. 55 and 35 dB [Option ID = 37730]
3. 45 and 40 dB [Option ID = 37731]
4. 55 and 40 dB [Option ID = 37732]

27) Match List I with List II

List I	List II
Biogeographic region	Country
A. Nearctic	I. Eurasia
B. Neotropic	II. North America
C. Oceanic	III. South America
D. Palaearctic	IV. Pacific Ocean

Choose the correct answer from the options given below:

[Question ID = 16934][Question Description = 127_151_EVS_SEP22_Q27]

1. A -III , B -II , C -IV , D -I [Option ID = 37733]
2. A -III , B -I , C -II , D -IV [Option ID = 37734]
3. A -I , B -III , C -IV , D -II [Option ID = 37735]
4. A -II , B -III , C -IV , D -I [Option ID = 37736]

28) What are the constituents of the producer gas?

[Question ID = 16935][Question Description = 128_151_EVS_SEP22_Q28]

1. Carbon dioxide and oxygen [Option ID = 37737]
2. Carbon dioxide and nitrogen [Option ID = 37738]
3. Carbon monoxide and nitrogen [Option ID = 37739]

4. Carbon monoxide and oxygen [Option ID = 37740]

29) Match List I with List II

List I	List II
Biomedical waste category	Types of waste
A. Category No. 2	I. Incineration Ash
B. Category No. 5	II. Disposables
C. Category No. 7	III. Discarded medicines
D. Category No. 9	IV. Animal and slaughterhouse waste

Choose the correct answer from the options given below:

[Question ID = 16936][Question Description = 129_151_EVS_SEP22_Q29]

1. A -I , B -II , C -IV , D -III [Option ID = 37741]
2. A -III , B -I , C -II , D -IV [Option ID = 37742]
3. A -IV , B -III , C -II , D -I [Option ID = 37743]
4. A -IV , B -I , C -III , D -II [Option ID = 37744]

30) In environmental auditing, the development of an audit plan comes under which stage?

[Question ID = 16937][Question Description = 130_151_EVS_SEP22_Q30]

1. Pre-audit stage [Option ID = 37745]
2. On-site audit stage [Option ID = 37746]
3. Post audit stage [Option ID = 37747]
4. During all stages [Option ID = 37748]

31) Which factors are responsible for photochemical smog formation?

[Question ID = 16938][Question Description = 131_151_EVS_SEP22_Q31]

1. Oxides of nitrogen, ozone, peroxy acetyl nitrate [Option ID = 37749]
2. Oxides of sulphur, particulates [Option ID = 37750]
3. Sunlight, ozone [Option ID = 37751]
4. Oxides of nitrogen and sulphur, peroxy acetyl nitrate [Option ID = 37752]

32) Which of the following sentence(s) are correct about the disaster management cycle?

A. It has 7 stages

B. The continuum of stages as Disaster →Responses →Rehabilitation →Reconstruction →Development →Prevention →Mitigation →Preparedness

C. Poorer are more vulnerable due to disasters strike

D. Disaster = (Hazard × Vulnerability / Capacity)

Choose the *correct* answer from the options given below:

[Question ID = 16939][Question Description = 132_151_EVS_SEP22_Q32]

1. A and B only [Option ID = 37753]
2. B, C and D only [Option ID = 37754]
3. A, C and D only [Option ID = 37755]
4. A, B, C and D [Option ID = 37756]

33) Raunkiaer classified plant communities into six types of classes on the basis of?

[Question ID = 16940][Question Description = 133_151_EVS_SEP22_Q33]

1. Leaf size [Option ID = 37757]
2. Position of bud [Option ID = 37758]
3. Bud condition [Option ID = 37759]
4. Bud age [Option ID = 37760]

34) In cities, tall buildings provide multiple surfaces for the reflection and adsorption of solar radiation, which increases temperature, this effect is known as?

[Question ID = 16941][Question Description = 134_151_EVS_SEP22_Q34]

1. Urban effect [Option ID = 37761]
2. Albedo [Option ID = 37762]
3. Canyon effect [Option ID = 37763]
4. Dimming effect [Option ID = 37764]

35) Match List I with List II

List I	List II
Act	Year
A. The Plastic (Management & Handling) Rules	I. 2010
B. National Environment Tribunal Act	II. 2011
C. Batteries (Management & Handling) Rules	III. 1995
D. E-waste (Management & Handling) Rules	IV. 2001

Choose the correct answer from the options given below:

[Question ID = 16942][Question Description = 135_151_EVS_SEP22_Q35]

1. A -II , B -III , C -IV , D -I [Option ID = 37765]
2. A -III , B -II , C -IV , D -I [Option ID = 37766]
3. A -I , B -III , C -II , D -IV [Option ID = 37767]
4. A -I , B -IV , C -II , D -III [Option ID = 37768]

36) Given below are two statements

Statement I: Leopold matrix method used for the environmental impact evaluation of a project activity.

Statement II: It uses matrix of human action and environmental factors and evaluated on a 1-10 scale.

In light of the above statements, choose the *correct* answer from the options given below

[Question ID = 16943][Question Description = 136_151_EVS_SEP22_Q36]

1. Both Statement I and Statement II are true [Option ID = 37769]
2. Both Statement I and Statement II are false [Option ID = 37770]
3. Statement I is true but Statement II is false [Option ID = 37771]
4. Statement I is false but Statement II is true [Option ID = 37772]

37) Which one is the false statement?

[Question ID = 16944][Question Description = 137_151_EVS_SEP22_Q37]

1. 1 Curie = 3.7×10^{10} disintegrations per second [Option ID = 37773]
2. Radiation Absorbed Dose (RAD) = absorption of 10 erg/g of the absorbing material [Option ID = 37774]
3. Roentgen is a measure of a quantity of ionizing radiation [Option ID = 37775]
4. Roentgen Equivalent Man (REM) is the quantity of radiation that produces the same biological damage in man as one Roentgen Equivalent Physical (REP) of γ -radiation [Option ID = 37776]

38) Match List I with List II

List I	List II
Project	Year of enforcement
A. Project Tiger	I. 1973
B. Project Snow Leopard	II. 1975
C. Project Crocodile	III. 2009
D. Project Hangul	IV. 1970

Choose the correct answer from the options given below:

[Question ID = 16945][Question Description = 138_151_EVS_SEP22_Q38]

1. A -I , B -II , C -IV , D -III [Option ID = 37777]
2. A -III , B -I , C -II , D -IV [Option ID = 37778]
3. A -IV , B -III , C -II , D -I [Option ID = 37779]
4. A -IV , B -I , C -III , D -II [Option ID = 37780]

39) Which of the following missions come under National Action Plan on Climate Change (NAPCC)?

- A. National Bioenergy Mission
- B. National Solar Mission
- C. National Mission of Forest conservation
- D. National Water Mission

Choose the *correct* answer from the options given below:

[Question ID = 16946][Question Description = 139_151_EVS_SEP22_Q39]

1. A, B, C and D [Option ID = 37781]
2. A, B and C only [Option ID = 37782]

3. B, C and D only [Option ID = 37783]
4. A, B and D only [Option ID = 37784]

40) Who discovered the catalytic converter?

[Question ID = 16947][Question Description = 140_151_EVS_SEP22_Q40]

1. Frederick Gardner Cottrell
[Option ID = 37785]
2. Eugene Houdry
[Option ID = 37786]
3. Michael Faraday
[Option ID = 37787]
4. Engr. Marino C. Martinez
[Option ID = 37788]

41) According to the India State of Forest Report (ISFR) 2021

- A. Around 113 countries have mangrove forests covering an estimated area of 14.79 Mha
- B. Total tree cover of the country has been estimated at around 95,748 sq. km
- C. The carbon stock for 2021 has been estimated at around 7204 Mt
- D. A & N Islands have a maximum bamboo bearing area

Choose the *correct* answer from the options given below:

[Question ID = 16948][Question Description = 141_151_EVS_SEP22_Q41]

1. A, B and C only [Option ID = 37789]
2. A, C and D only [Option ID = 37790]
3. A, B and D only [Option ID = 37791]
4. A, B, C and D [Option ID = 37792]

42) The standard 5-day BOD (BOD_5) at 20°C, when compared to the ultimate BOD (BOD_u) is about?

[Question ID = 16949][Question Description = 142_151_EVS_SEP22_Q42]

1. 58% [Option ID = 37793]
2. 68% [Option ID = 37794]
3. 98% [Option ID = 37795]
4. 100% [Option ID = 37796]

43) Which of the following are the components of Zero Budget Natural Farming (ZBNF)?

- A. Jeevamrutha
- B. Bijamrita
- C. Acchadana
- D. Whapasa

Choose the *correct* answer from the options given below:

[Question ID = 16950][Question Description = 143_151_EVS_SEP22_Q43]

1. A, B and D only [Option ID = 37797]
2. A, B and C only [Option ID = 37798]
3. B, C and D only [Option ID = 37799]
4. A, B, C and D [Option ID = 37800]

44) The sound unit Decibel is based on the?

[Question ID = 16951][Question Description = 144_151_EVS_SEP22_Q44]

1. Logarithmic scale [Option ID = 37801]
2. Arithmetic scale [Option ID = 37802]
3. Antilogarithmic scale [Option ID = 37803]
4. Log and antilog scale [Option ID = 37804]

45) Given below are two statements, one is labelled as Assertion A and the other is labelled as Reason R

Assertion A : The sludge which is made powerful by the process of aeration is known as activated sludge.

Reason R : It contains high content of oxygen and a high number of aerobic bacteria.

In light of the above statements, choose the *correct* answer from the options given below

[Question ID = 16952][Question Description = 145_151_EVS_SEP22_Q45]

1. Both A and R are true and R is the correct explanation of A [Option ID = 37805]
2. Both A and R are true but R is NOT the correct explanation of A [Option ID = 37806]
3. A is true but R is false [Option ID = 37807]
4. A is false but R is true [Option ID = 37808]

46) What is India's ranking in Climate Change Performance Index (CCPI) 2022?

[Question ID = 16953][Question Description = 146_151_EVS_SEP22_Q46]

1. 10 [Option ID = 37809]
2. 15 [Option ID = 37810]
3. 17 [Option ID = 37811]
4. 21 [Option ID = 37812]

47) Choose the correct relationship between geometric mean (GM), the arithmetic mean (AM) and harmonic mean (HM)?

[Question ID = 16954][Question Description = 147_151_EVS_SEP22_Q47]

1. $GM = \frac{AM}{HM}$

[Option ID = 37813]

2. $GM^2 = AM \times HM$ [Option ID = 37814]

3. $AM = \sqrt{GM \times HM}$

[Option ID = 37815]

4. $HM = GM \times AM$ [Option ID = 37816]

48) Calculate the coefficient of variation (CV), if the mean and standard deviation for yield are 50 kg and 40 kg respectively?

[Question ID = 16955][Question Description = 148_151_EVS_SEP22_Q48]

1. 20% [Option ID = 37817]
2. 25% [Option ID = 37818]
3. 80% [Option ID = 37819]
4. 100% [Option ID = 37820]

49) What is the median value for a given data set, 6.5, 3.4, 8.6, 2.9?

[Question ID = 16956][Question Description = 149_151_EVS_SEP22_Q49]

1. 4.95 [Option ID = 37821]
2. 6.5 [Option ID = 37822]
3. 5.35 [Option ID = 37823]
4. 4.0 [Option ID = 37824]

50) What is the variance value of 2, 4, 6, 8, 10 data set?

[Question ID = 16957][Question Description = 150_151_EVS_SEP22_Q50]

1. 6 [Option ID = 37825]
2. 7 [Option ID = 37826]
3. 8 [Option ID = 37827]
4. 9 [Option ID = 37828]