ENVIRONMENTAL SCIENCES

PAPER – II

CODE-26

Name & Signature of the Invigilator

.....

.....

OMR Answer Sheet No. : | | | | | | |

Roll No. : | | | | | | |

(in figures as in Hall Ticket)

Roll Number in words : .....

.....

Question Booklet Sl. No.

260101

Time : 2 Hours] **No. of Printed Pages : 20** **[Maximum Marks : 200**

Instructions for the Candidates

1. Write your Roll Number in the space provided on the top of this page.
2. This paper consists of **one hundred (100)** multiple choice type of questions. **All** questions are compulsory.
3. At the commencement of examination, the question booklet will be given to you. In the first 5 minutes, you are requested to open the booklet and compulsorily examine it as below :
   (i) To have access to the Question Booklet, tear off the paper seal on the edge of this cover page. Do not accept a booklet without sticker seal and do not accept an open booklet.
   (ii) Tally the number of pages and number of questions in the booklet with the information printed on the cover page. Faulty booklets due to pages/questions missing or duplicate or not in serial order or any other discrepancy should be got replaced immediately by a correct booklet from the invigilator within the period of 5 minutes. Afterwards, neither the Question Booklet will be replaced nor any extra time will be given.
   (iii) After this verification is over, the Test Booklet Number should be entered on the OMR Answer Sheet and the OMR Answer Sheet Number should be entered on this Test Booklet.
4. Each item has four alternative responses marked (A), (B), (C) and (D). You have to darken the oval as indicated below on the correct response against each item.
   Example: (A) ● (C) (D) where (B) is the correct response.
5. Your responses to the items are to be indicated on the OMR Answer Sheet under Paper – II only. If you mark your response at any place other than in the oval in the OMR Answer Sheet, it will not be evaluated.
6. Rough Work is to be done in the end of this booklet.
7. If you write your Name, Roll Number, Phone Number or put any mark on any part of the OMR Answer Sheet, except for the space allotted for the relevant entries, which may disclose your identity, or use abusive language or employ any other unfair means, such as change of response by scratching or using white fluid, you will render yourself liable to disqualification.
8. You have to return the original OMR Answer Sheet to the invigilator at the end of the examination compulsorily and must not carry it with you outside the Examination Hall. You are however, allowed to carry original question booklet and duplicate copy of OMR Answer Sheet on conclusion of examination.
9. Use only Blue/Black Ball point pen.
10. Use of any calculator or any electronic devices or log table etc., are prohibited.
11. There shall be no negative marking.

પરીક્ષાર્થીઓ માટે સૂચનાઓ

1. આ પાનાની ટોચ પર દર્શાવેલી જગ્યામાં તમારો રોલ નંબર લખો.
2. આ પ્રશ્નપત્રમાં બહુવૈકલ્પિક ઉત્તરો ધરાવતા સો (૧૦૦) પ્રશ્નો આપેલા છે. બધા જ પ્રશ્નો ફરજિયાત છે.
3. પરીક્ષાની શરૂઆતમાં આપને પ્રશ્નપુસ્તિકા આપવામાં આવશે. પ્રથમ પાંચ (૫) મિનિટ દરમ્યાન તમારે પ્રશ્નપુસ્તિકા ખોલી અને ફરજિયાતપણે નીચે મુજબ પરીક્ષણ કરવું :
   (i) પ્રશ્નપુસ્તિકાનો વપરાશ કરવા માટે આ કવર પૃષ્ઠની ધાર પર આપેલ સીલ સ્ટીકર ફાડી નાખો. કોઈપણ સંજોગોમાં સીલ સ્ટીકર વગરની કે ખુલ્લી પ્રશ્નપુસ્તિકા સ્વીકારશો નહીં.
   (ii) કવર પૃષ્ઠ પર છપાયેલ નિર્દેશાનુસાર પ્રશ્નપુસ્તિકાના પ્રશ્નો, પૃષ્ઠો અને સંખ્યાને બરાબર ચકાસી લો. ખામીયુક્ત પ્રશ્નપુસ્તિકા કે જેમાં પ્રશ્નો/ પૃષ્ઠો ઓછાં હોય, બે વાર છપાયા હોય, અનુક્રમમાં અથવા અન્ય કોઈ ફરક હોય અર્થાત કોઈપણ સંજોગોમાં ખામીયુક્ત પ્રશ્નપુસ્તિકા સ્વીકારશો નહીં. અને જો ખામીયુક્ત પ્રશ્નપુસ્તિકા મળી હોય તો નિરીક્ષક પાસેથી તુરંત જ બીજી સારી પ્રશ્નપુસ્તિકા મેળવી લેવી. આ માટે ઉમેદવારને પાંચ (૫) મિનિટનો સમયગાળો આપવામાં આવશે. પછીથી, પ્રશ્નપુસ્તિકા બદલવામાં આવશે નહીં કે કોઈ વધારાનો સમયગાળો આપવામાં આવશે નહીં.
   (iii) આ ચકાસણી સમાપ્ત થાય પછી, પ્રશ્નપુસ્તિકાનો નંબર OMR જવાબ પત્રક પર લખવો અને OMR જવાબ પત્રકનો નંબર પ્રશ્નપુસ્તિકા પર લખવો.
4. પ્રત્યેક પ્રશ્ન માટે ચાર જવાબ વિકલ્પ (A), (B), (C) અને (D) આપવામાં આવેલ છે. તમારે સાચા જવાબના ઓવલ (oval) ને નીચે આપેલ ઉદાહરણ મુજબ પેનથી ભરીને સંપૂર્ણ કાળું કરવાનું રહેશે.
   ઉદાહરણ : (A) ● (C) (D) કે જ્યાં (B) સાચો જવાબ છે.
5. આ પ્રશ્નપુસ્તિકાના પ્રશ્નોના જવાબ અલગથી આપવામાં આવેલ OMR જવાબ પત્રકમાં પેપર-II લખેલ વિભાગમાં જ અંકિત કરવા. જો આપ OMR જવાબ પત્રકમાં આપેલ ઓવલ (oval) સિવાય અન્ય સ્થાને જવાબ અંકિત કરશો તો તે જવાબનું મૂલ્યાંકન કરવામાં આવશે નહીં.
6. કાચું કામ (Rough work) પ્રશ્નપુસ્તિકાના અંતિમ પૃષ્ઠ પર કરવું.
7. જો આપ OMR જવાબ પત્રક નિયત જગ્યા સિવાય અન્ય કોઈપણ સ્થાને, આપનું નામ, રોલ નંબર, ફોન નંબર અથવા એવું કોઈ ચિહ્નકે જેનાથી તમારી ઓળખ થઈ શકે, અંકિત કરશો અથવા અભદ્ર ભાષાનો પ્રયોગ કરો, અથવા અન્ય કોઈ અનુચિત સાધનોનો ઉપયોગ કરો, જેમકે અંકિત કરી દીધેલ જવાબ ભૂંસી નાખવો કે સફેદ શાહીનો ઉપયોગ કરી બદલશો તો આપને પરીક્ષા માટે અયોગ્ય જાહેર કરવામાં આવશે.
8. પરીક્ષા સમય પૂરો થઈ ગયા બાદ ઓરીજીનલ OMR જવાબ પત્રક જે તે નિરીક્ષકને ફરજિયાત સોપી દેવું અને કોઈ પણ સંજોગોમાં તે પરીક્ષા ખંડની બહાર લઈ જવું નહીં. પરીક્ષા પૂર્ણ થયા બાદ ઉમેદવાર ઓરીજીનલ પ્રશ્નપુસ્તિકા અને OMR જવાબ પત્રકની ડુપ્લિકેટ કોપી પોતાની સાથે લઈ જઈ શકે છે.
9. માત્ર કાળી / ભૂરી બોલ પોઈન્ટ પેન વાપરવી.
10. કેલ્ક્યુલેટર,લોગ ટેબલ અને અન્ય ઈલેક્ટ્રોનિક યંત્રોનો ઉપયોગ કરવાની મનાઈ છે.
11. ખોટા જવાબ માટે નકારાત્મક ગુણાંકન પ્રથા નથી.

ENVIRONMENTAL SCIENCES

Paper – II

1. Match Column – I with Column – II and select answer using code :

Column – I	Column – II
a. Earth Day	1. 21st March
b. Ozone Day	2. 2nd February
c. Wetland Day	3. 16th September
d. World Forest Day	4. 22nd April

	a	b	c	d
(A)	4	3	2	1
(B)	4	2	3	1
(C)	4	2	1	3
(D)	4	3	1	2

2. Which of the following is NOT a Sustainable Development Goal (SDG) ?

(A) Action on climate
(B) Quality of education
(C) Reduced inequality
(D) Right to education

3. Which of the following environmental reaction is zero order ?

(A) Cometabolic biotransformation of some halogenated organic compounds
(B) Bacterial nitrification of NH_3
(C) Decomposition of organic matter by bacteria in BOD test
(D) Oxidation of glucose by aerobic bacteria

4. Which among the following are the best tools/techniques to study landscape fragmentation ?

I. Remote sensing
II. Geodesy
III. Cartography
IV. Geographical Information System

Select the correct answer :

(A) I and II
(B) I and IV
(C) I, III and IV
(D) II, III and IV

5. A process in which volume remains constant is called
   (A) An isochoric process
   (B) An isobaric process
   (C) An isothermal process
   (D) An adiabatic process

6. Which among the following is NOT a minor tectonic plate ?
   (A) Arabian plate
   (B) Eurasian plate
   (C) Phillippine sea plate
   (D) Somali plate

7. Which of the following region shows negative lapse rate i.e. temperature falls with increasing altitude ?
   I. Troposphere
   II. Stratosphere
   III. Mesosphere
   IV. Thermosphere

   Choose the correct option :
   (A) I only
   (B) III only
   (C) I and III only
   (D) II and IV only

8. The highest seismic zone (zone V) in India is/are
   I. The Himalayas
   II. The Kachchh area in the west
   III. The Western ghats

   Choose the correct option :
   (A) I only
   (B) II only
   (C) I and II only
   (D) I and III only

9. What was the theme for this year's (year 2025) World Environment Day ?
   (A) Solution to plastic pollution
   (B) Air pollution
   (C) Land restoration, Desertification and Drought resilience
   (D) Beat plastic pollution

10. Which of the followings are biogeographic realms in the world ?

I. Oceanic Biogeographic Realm

II. Neotropical Biogeographic Realm

III. Afrotropical Biogeographic Realm

IV. Australasia Biogeographic Realm

Choose the answer from options given below :

(A) I, II and III

(B) I, II and IV

(C) II, III and IV

(D) I, II, III and IV

11. Natural ores containing radioactive materials include isotopes

I. U^{235}

II. Th^{232}

III. Pu^{239}

Choose the correct option :

(A) I only

(B) II only

(C) I and II only

(D) I and III only

12. The Bragg's equation is

(A) $n\lambda = 2d\sin\theta$

(B) $\lambda = 2d\sin 2\theta$

(C) $n\lambda = d\sin\theta$

(D) $n\lambda = 3d\sin\theta$

13. Match Column – I with Column – II and select the answer using answer code.

Column – I	Column – II
a. Kolar gold mines	1. Silicosis
b. Black-lungs	2. Asbestosis
c. Cotton textile mills	3. Byssinosis
d. Greek expression for 'Unquenchable'	4. Pneumoconiosis
	5. Amoebiasis

	a	b	c	d
(A)	1	4	3	2
(B)	4	1	3	2
(C)	1	4	2	3
(D)	1	4	5	2

14. In a periodic table of element, if we move through the group II from top to bottom, we first encounter Beryllium, Magnesium and Calcium. It we move further, which elements will be encounter in sequence ?
(A) Barium, Strontium, Radium
(B) Strontium, Barium, Radium
(C) Strontium, Barium, Rubidium
(D) Barium, Caesium, Rubidium

15. DG = DH – TDS is the formula to calculate
(A) Geological tree energy
(B) Geothermal tree energy
(C) Gibb's free energy
(D) Gerad's tree energy

16. Which one of the following is a contact pesticide ?
(A) Carbaryl
(B) Pyrrolizidine
(C) Sporidesmin
(D) Phalloidin

17. Given below are two statements.

Statement – I : The main constituents of photochemical smog are oxides of nitrogen, hydrocarbon and ozone.

Statement – II : The classical smog is mainly composed of SO_2 and smoke particulates.

Choose the correct answer from the options given below :
(A) Both the statements are true
(B) Both the statements are false
(C) Statement I is true but statement II is false
(D) Statement I is false but statement II is true

18. Amount of oxygen required by microorganisms to breakdown organic materials is
(A) Biological Oxygen Demand
(B) Chemical Oxygen Demand
(C) Micro Oxygen Demand
(D) Macro Oxygen Demand

19. Solubility of NH_3 in water

I. Increases with decrease in P^H.

II. Increases with increase in temperature.

III. Increases with increase in partial pressure of ammonia.

Choose the correct option :

(A) I only

(B) III only

(C) I and III only

(D) II and III only

20. Calcium and bicarbonates, which causes temporary hardness in water, can be removed by

I. Boiling

II. Adding lime (calcium hydroxide)

Choose the correct option :

(A) I only

(B) II only

(C) Both I and II

(D) Neither I nor II

21. Which one of the following is the characteristic of k-selected species ?

(A) Small body size

(B) Less competitive ability

(C) Poor parental care

(D) Delayed reproduction

22. A Keystone species is

(A) Restricted to small geographic area

(B) Strongly influence the structure and functioning of the ecosystem

(C) Especially vulnerable to extinction

(D) Preys heavily on the particular species

23. Ecotone is

(A) An ecological study

(B) A type of ecosystem

(C) A transition zone between two ecosystem

(D) A zone of ecosystem

24. Which of the following are produced during fermentation ?

I. Ethanol
II. Citrate
III. Lactate
IV. Succinate

Select the correct option :

(A) I only
(B) I and II
(C) I and III
(D) II and IV

25. Biodiversity hot spot is a region with high level of

(A) Endemic species
(B) Rare species
(C) Threatened species
(D) Endemic, rare and threatened species

26. Match Column – I with Column – II and select the correct answer using answer code :

Column – I	Column – II
a. Fungus garden	1. Commensalism
b. Velamen	2. Brood parasitism
c. Indian Koel and crow	3. Epiphytes
d. Pea crab and mussel	4. Ammensalism
	5. Mutualism

	a	b	c	d
(A)	3	5	2	1
(B)	5	4	2	3
(C)	4	5	2	1
(D)	1	2	3	4

27. _____ is a density-independent factor that limits the size of the natural populations.

(A) Sex ratio
(B) Severe draught
(C) Predation
(D) Territoriality

28. The most biologically diverse fragile ecosystem of the world is
    (A) Mangrove ecosystem
    (B) Coral reef ecosystem
    (C) Evergreen forest ecosystem
    (D) Wetland ecosystem

29. Greenpeace is
    (A) An inhibitory process
    (B) Government policy for speciation
    (C) Independent global campaigning network
    (D) Green evaluation process

30. Timberline refers to
    (A) The boundary between forest and grassland
    (B) The lowest altitude where trees can grow due to extreme cold temperature
    (C) The highest altitude where trees can not grow due to extreme cold temperature
    (D) The boundary between tundra and forest

31. Ghyben-Herzberg ratio states that, for every meter of freshwater in an unconfined aquifer above sea level, there will be _____ meter of freshwater in the aquifer below sea level.
    (A) 10
    (B) 20
    (C) 30
    (D) 40

32. Consider the following.
    1. Remote sensing is the science of acquiring information about earth's surface without actually being in contact with it.
    2. There are several regions of electromagnetic spectrum which are useful for remote sensing.
    3. Particle and gases in the atmosphere do not affect the incoming light and radiation for remote sensing.

    Which of the above sentence is NOT true ?
    (A) Only 1
    (B) Only 3
    (C) Both 1 and 2
    (D) Only 2

33. Darcy's law is valid for
    (A) Laminar flow only
    (B) Turbulent flow only
    (C) Hydraulic flow and turbulent flow
    (D) Laminar and turbulent flow

34. Chemical composition of quartz is
(A) SiO_4
(B) Si_2O_3
(C) Al_2O_3
(D) SiO_2

35. The "Ring of Fire" characterized by intense tectonic activity primarily encircles which tectonic boundary ?
(A) Divergent boundaries
(B) Convergent boundaries
(C) Transform boundaries
(D) Subduction boundaries

36. The water in soil unavailable to plants is known as
(A) Echard
(B) Chraserd
(C) Holard
(D) Kresard

37. A major cloud burst in Uttarakhand occurred in
(A) 2013 (B) 2012
(C) 2010 (D) 2011

38. Which of the following is NOT a common element in earth's crust ?
(A) Oxygen
(B) Silicon
(C) Aluminium
(D) Nitrogen

39. Chalcophiles are elements showing affinities for
(A) Silicates liquid phase
(B) Sulfide liquid phase
(C) Metallic liquid phase
(D) Volatility

40. Elastic rebound theory suggests that an earthquake results due to change in the state of rock from elastic to
(A) Plastic
(B) Elastic
(C) Undeformed
(D) Brittle

41. Burning biomass does NOT add to greenhouse gas emissions because
(A) It is a clean fuel
(B) It does not emit greenhouse gases
(C) It releases the same amount of greenhouse gases as burning fossil fuel does
(D) It releases green house gases that were captured and converted into other forms during its growth

42. A nuclear reactor is said to be "critical" when the neutron population in the reactor core is
(A) Rapidly increasing leading to the point of nuclear explosion
(B) Decreasing from a required specified value
(C) Reduced to zero
(D) Constant

43. Given below are two statements. Assertion (A) and Reason (R). Find the correct statement by using the codes.

Assertion (A) : Solar photovoltaic system have a lower Energy Payback Time (EPBT) in high-latitude countries than in tropical countries.

Reason (R) : Solar insolation is more intense and consistent in tropical regions than in high-latitude regions.
(A) Both (A) and (R) are correct and (R) is correct explanation of (A)
(B) Both (A) and (R) are correct, but (R) is not the correct explanation of (A)
(C) (A) is true, but (R) is false
(D) (A) is false, but (R) is true

44. Which of the following statements is false regarding methanol as additive in gasoline ?
(A) It has high octane number
(B) It can be produced from coal, O_2 and steam
(C) It can be produced from CO and H_2
(D) Major disadvantage of methanol is it emits a large number of pollutants

45. Microbial fuel cells are considered a source of sustainable energy because
I. They use living organisms as catalysts to generate electricity from certain substrates.
II. They use a variety of inorganic materials as substrates.
III. They can be installed in waste water treatment plants to clean water and produce electricity.

Which of the statements given above is/are correct ?
(A) II and III
(B) I and III
(C) Only III
(D) I, II and III

46. The power of wave is proportional to
(A) The square of its amplitude and the square of its frequency
(B) The amplitude and the frequency
(C) The square of the amplitude and the frequency
(D) The amplitude and the square of the frequency

47. If wind speed doubles, how does the wind power density change ?
(A) It doubles
(B) It triples
(C) It increases by a factor of 4
(D) It increases by a factor of 8

48. Green hydrogen is produced by
(A) Burning fossil fuel
(B) Electrolysis using renewable energy
(C) Reforming natural gas without carbon capture
(D) Gasification of coal

49. Full form of OTEC is
(A) Ocean Tidal Energy Conversion
(B) Ocean Thermal Energy Conversion
(C) Ocean Thermal Energy Concentration
(D) Ocean Tidal Energy Concentration

50. What does Energy Payback Time (EPBT) measure ?
(A) Cost recovery time
(B) Energy lost in transmission
(C) Time to produce as much energy as was used to build the system
(D) Total lifespan of the system

51. Infrasonic (Infrasound) frequencies are
(A) Below 20 Hz
(B) Above 50 Hz
(C) Above 1500 Hz
(D) Above 15000 Hz

52. In thermal power plants, which technology is commonly used to reduce Sulfur dioxide (SO_2) emissions ?
(A) Cyclonic separators
(B) Flue-gas desulfurization units
(C) Catalytic converters
(D) Fabric filters

53. Which physiological effect is least likely to result from chronic exposure to high noise levels ?
(A) Hypertension
(B) Sleep disturbances
(C) Impaired cognitive development in children
(D) Decreased lung capacity

54. With regard to Radioactivity, one curie is equivalent to
(A) 3.7×10^{10} Bq (B) 5.7×10^{6} Bq
(C) 9.2×10^{3} Bq (D) 9.9×10^{10} Bq

55. Which among the following is a Criteria Air Pollutant (CAP) ?
(A) Carbondioxide (CO_2)
(B) Methane (CH_4)
(C) Ozone (O_3)
(D) Hydrogen Sulphide (H_2S)

56. Which method is most suitable for removing heavy metals from industrial wastewater ?
(A) Chlorination
(B) Reverse osmosis
(C) Sedimentation
(D) Trickling filter

57. In ocean water, the quantity of salts is as follows
(A) Sodium Chloride > Magnesium Chloride > Calcium Sulphate > Calcium Carbonate
(B) Sodium Chloride > Calcium Chloride > Calcium Carbonate > Magnesium Chloride
(C) Sodium Chloride > Magnesium Bromide > Calcium Sulphate > Calcium Chloride
(D) Sodium Chloride > Calcium Sulphate > Magnesium Bromide > Calcium Chloride

58. How does acid rain contribute to soil pollution ?
(A) By increasing soil alkalinity
(B) By increasing soil microbial activity
(C) By leaching essential nutrients and mobilizing toxic metals
(D) By promoting nitrogen fixation

59. Match Column – I with Column – II and select answer code.

Column – I	Column – II
a. CO	1. Produced in internal combution engine as a precursor to photochemical smog formation
b. O_3	2. Formed in connection with photo-chemical smog
c. SO_2	3. Not associated with smog or acid rain but of concern because of direct toxic effects
d. NO	4. Does not cause smog to form but is a precursor to acid rain

	a	b	c	d
(A)	3	2	4	1
(B)	2	3	1	4
(C)	4	2	3	1
(D)	1	4	2	3

60. Which of the following radioactive isotopes is most hazardous due to its long half life and ability to accumulate in bones, Mimicking calcium ?

(A) Iodine – 131 (B) Cesium – 137
(C) Strontium – 90 (D) Radon – 222

61. Main source of plastic waste found in the environment is

(A) Plastic bottles (B) Plastic grocery bags
(C) Cigarette butts (D) Plastic straws

62. Match the following.

a. 1981	1. The Water (Prevention and Control of Pollution) Act
b. 1974	2. The Air (Prevention and Control of Pollution) Act
c. 1991	3. The Environmental Protection Act
d. 1986	4. The Public Liability Insurance Act

	a	b	c	d
(A)	2	1	4	3
(B)	3	4	1	2
(C)	4	3	2	1
(D)	1	2	3	4

63. A hazardous waste should have which of the following characteristics ?

(A) pH < 2, flash point > 60°C (B) pH > 2, flash point < 60°C
(C) pH > 12.5, flash point < 60°C (D) pH < 12.5, flash point > 60°C

64. What type of waste is NOT suitable for biomethanation ?

(A) Plastic waste (B) Food waste
(C) Animal manure (D) Agriculture waste

65. Hazardous waste management and handling rule was enacted in the year

(A) 1989 (B) 1979
(C) 1969 (D) 1999

66. Which of the following factor determine toxicity ?

(A) Instability (B) Temperature
(C) Doses (D) pH

67. The moisture that is retained by solid waste against gravitational pool is called

(A) Hygroscopicity
(B) Field capacity
(C) Permeability
(D) Absorptivity

68. The combustion efficiency is

(A) $CE = \frac{\%\ of\ CO_2}{\%\ of\ CO_2 + \%\ CO} \times 100$

(B) $CE = \text{Atomic mass of CO} \times \frac{100}{50}$

(C) $CE = \%\ of\ CO_2 + CO$

(D) $CE = CO_2/CO$

69. The process in which the trash and garbage are burned in large furnace at high temperature to get rid of as much of the refuse as possible is

(A) Landfill
(B) High injection process
(C) Incineration
(D) Pulverisation

70. An integrated solid waste management system includes

(A) Collection of solid waste
(B) Segregation of solid waste
(C) Waste minimization at source
(D) Use of latest technology

71. As per the CRZ notification of 2011

(A) The land area from the High Tide Line (HTL) to 500 m on the landward side is defined as CRZ.
(B) The land area between the Low Tide Line (LTL) and HTL is defined as CRZ.
(C) The land area between LTL and HTL to 500 m on the landward side is defined as CRZ.
(D) The land area between the LTL to spring tide is defined as CRZ.

72. Which one of the following is the correct order of steps taken during Environmental Impact Assessment (EIA) ?

(A) Scoping, Screening, EIA, Public Hearing, Issue of Environmental Clearance
(B) Screening, Issue of Environmental Clearance, Scoping, Public Hearing, EIA
(C) Screening, Scoping, EIA, Public Hearing, Issue of Environmental Clearance
(D) Issue of Environmental Clearance, Screening, Scoping, EIA, Public Hearing

73. In 1997, _____ was signed.

(A) Agenda 21
(B) Convention on Biodiversity
(C) Copenhagen Summit Document
(D) Kyoto Protocol

74. As per Article 48 A of the Constitution _____ shall endeavour to protect, improve and safeguard forest and wildlife of country.

(A) Central Government
(B) State Government
(C) Local Government
(D) State and Local Government

75. Given below are two statements, one labelled as Assertion (A) and the other labelled as Reason (R).

Assertion (A) : Environment audit enables the management to run the unit efficiently.

Reason (R) : Environment audit provides an up-to-date record of the performance of the equipment.

Choose the correct answer :

(A) Both (A) and (R) are correct and (R) is the correct explanation of (A)

(B) Both (A) and (R) are correct and (R) is not the correct explanation of (A)

(C) (A) is true but (R) is false

(D) (A) is false but (R) is true

76. Match Column – I with Column – II and select answer using answer code.

Column – I	Column – II
a. ISO14014	1. Symbols
b. ISO14022	2. Testing and verification
c. ISO14023	3. Improvement Assessment
d. ISO14031	4. Initial reviews
	5. Environmental performance evaluation

Codes :

	a	b	c	d
(A)	3	4	1	5
(B)	4	1	2	5
(C)	5	1	3	2
(D)	4	2	3	1

77. What is the main function of Biodiversity Management Committees (BMCs) ?

(A) Monitor air quality in rural areas

(B) Maintain people's biodiversity registers

(C) Issue wildlife trade permits

(D) Enforce forest conservation acts

78. What is a contingency plan ?

(A) A set of guidelines ensuring that the development project will remain within its boundaries

(B) A plan of action to prevent an emergency and to be taken when emergencies occur

(C) A plan describing the measures that will be taken to contain or treat any waste produced by the development project

(D) A set of guidelines to be adapted when emergencies occur

79. According to National Water Policy, 2002, which of the following is given highest priority in water allocation ?
(A) Industrial use
(B) Domestic water supply and drinking
(C) Irrigation
(D) Hydroelectric power generation

80. As per Plastic Waste Management (Amendment) Rules, 2021, what is the minimum thickness prescribed for plastic carry bags ?
(A) 20 micron (B) 40 micron (C) 75 micron (D) 120 micron

81. What type of relationship does the Lotka-Volterra model describe ?
(A) Competition (B) Predator-Prey (C) Symbiosis (D) Parasitism

82. For a binomial distribution
(A) Mean = Variance
(B) Mean < Variance
(C) Mean > Variance
(D) Mean and Variance relation may change with parameters

83. Which of the following is a non-probability sampling ?
(A) Cluster sampling
(B) Simple random sampling
(C) Stratified sampling
(D) Snowball sampling

84. Assume that Null Hypothesis being tested by ANOVA is false, the probability of obtaining a F-ratio that exceeds the value in F table as the 95^{th} percent is
(A) Less than 0.05
(B) Equal to 0.05
(C) Greater than 0.05
(D) Greater than or equal to 0.05

85. Match the following.

List – I	List – II
a. Harmonic Mean	1. Value is obtained by adding all the items and by dividing this total by number of items
b. Arithmetic Mean	2. Designated by the Symbol $\bar{X}$
c. Geometric Mean	3. Based on the reciprocals of the number averaged
d. Mean	4. The n^{th} root of the product of N item

Codes :

	a	b	c	d
(A)	4	1	3	2
(B)	1	4	3	2
(C)	3	2	4	1
(D)	2	3	1	4

86. Generally probability of _____ is considered to be a significant difference.
(A) 0.5 (B) 0.1 (C) 0.05 (D) Less than 0.05

87. In paired t-test, the degree of freedom is
(A) $N - 1$ (B) $N - 2$ (C) $N_1 + N_2 + 2$ (D) $N_1 + N_2 - 2$

88. The Leslie matrix is powerful tool for
(A) Predicting weather patterns
(B) Understanding the spread of disease
(C) Analyzing population dynamics and conservation strategies
(D) Calculation of speed of light

89. Chi-square test is used to analyse
(A) Frequencies (B) Means
(C) Variances (D) Number of samples

90. If the regression coefficient of Y on X is 0.8 and the regression coefficient of X on Y is 0.2, what is the correlation coefficient between X and Y ?
(A) 0.16 (B) 0.4 (C) 1 (D) 0.64

91. The total number of Ramsar sites (as on June 2025) in India are
(A) 75 (B) 87 (C) 91 (D) 85

92. Under the GRIHA (V 2019) Rating Norms, a building securing 73 points on a 100 point scale, will be assigned which of the following ratings ?
(A) Two star (B) Three star
(C) Four star (D) Five star

93. 'Ek Ped Maa Ke Naam' campaign was launched on
(A) 2 February 2024 (B) 22 March 2024
(C) 22 May 2024 (D) 5 June 2024

94. The Union Ministry of Environment, Forest and Climate Change (MoEFCC) in year 2023-24 merged which of the following conservation schemes ?
(A) Project Elephant and Project Cheetah
(B) Project Tiger and Project Cheetah
(C) Project Elephant and Project Tiger
(D) Project Tiger and Project Snow Leopard

95. Askot Wildlife Sanctuary has been declared as an ecosensitive zone by the Union of Environment Ministry. It is situated in
(A) Madhya Pradesh (B) Gujarat
(C) Karnataka (D) Uttarakhand

96. Given below are two statements.

Statement – I : Imposex in molluscs is primarily caused by the presence of tributyltin (TBT) pollution in the marine environment.

Statement – II : Ships are responsible for significant source of tributyltin pollution.

Choose the correct answer from the options given below :

(A) Both the statements are true

(B) Both the statements are false

(C) Statement I is true but statement II is false

(D) Statement I is false but statement II is true

97. Yamuna action plan is a bilateral project between

(A) India and USA

(B) India and Russia

(C) India and Germany

(D) India and Japan

98. Which of the following hydrogen is derived from fossil fuels ?

(A) Yellow hydrogen

(B) Blue hydrogen

(C) Green hydrogen

(D) Pink hydrogen

99. The correct order of concentration (by volume) of the following greenhouse gases in the Earth's atmosphere up to an altitude of 100 km is

O_3, CO_2, CH_4, N_2O

(A) $CO_2 > CH_4 > N_2O > O_3$

(B) $CO_2 > N_2O > CH_4 > O_3$

(C) $CO_2 > O_3 > CH_4 > N_2O$

(D) $CO_2 > CH_4 > O_3 > N_2O$

100. Jawaharlal Nehru National Solar Mission was introduced in

(A) January 2010

(B) June 2010

(C) June 2016

(D) January 2015

Space for Rough Work