

**Ph.D. Entrance Test – 2015****Subject: Environment Science****Paper – I**

**Important:** Please consult your Admit Card/Roll No. slip before filling your Roll Number on the Test Booklet and Answer Sheet.

Roll No.

*In Figure**In Words*

--	--	--	--	--	--

O.M.R. Answer Sheet Serial No.

--	--	--	--	--	--

Signature of Candidate: \_\_\_\_\_

Signature of Invigilator: \_\_\_\_\_

**Time: 60 Minutes****Number of Questions: 50****Maximum Marks: 50****DO NOT OPEN THE SEAL ON THE BOOKLET UNTIL ASKED TO DO SO.****INSTRUCTIONS:**

1. Write your Roll No. on the Questions Booklet and also on the OMR Answer Sheet in the space provided and nowhere else.
2. Enter the Question Booklet Serial No. on the OMR Answer Sheet. Darken the corresponding bubbles with **Black Ball Point/Black Gel Pen**.
3. Do not make any identification mark on the Answer Sheet or Question Booklet.
4. Please check that this Question Booklet contains **50** Questions. In case of any discrepancy, inform the Assistant Superintendent within 10 minutes of the start of Test.
5. Each question has four alternative answer (A,B,C,D) of which only one is correct. For each question, darken only one bubble (A or B or C or D), whichever you think is the correct answer, on the Answer Sheet with **Black Ball Point/Black Gel Pen**. **There shall be no negative marking for wrong answers.**
6. If you do not want to answer a question, leave all the bubbles corresponding to that question blank in the Answer Booklet. No marks will be deducted in such cases.
7. Darken the bubbles in the OMR Answer Sheet according to the Serial No. of the question given in the Question Booklet.
8. If you want to change an already marked answer, erase the shade in the darkened bubble completely.
9. For rough work only the blank sheet at the end of the Question Booklet be used.
10. The Answer Sheet is designed for computer evaluation. Therefore, if you do not follow the instructions given on the Answer Sheet, it may make evaluation by the computer difficult. **Any resultant loss to the candidate on the above account, i.e. not following the instructions completely, shall be of the candidate only.**
11. After the test, hand over the Question Booklet and the Answer Sheet to the Assistant Superintendent on duty.
12. In no case the Answer Sheet, the Question Booklet, or its part or any material copied/noted from this Booklet is to be taken out of the examination hall. Any candidate found doing so would be expelled from the examination.
13. A candidate who creates disturbance of any kind or changes his/her seat or is found in possession of any paper possibly of any assistant or found giving or receiving assistant or found using any other unfair means during the examination will be expelled from the examination by the Centre Superintendent/Obsrver whose decision shall be final.
14. **Communication equipment such as mobile phones, pager, wireless set, scanner, camera or any electronic/digital gadget etc., is not permitted inside the examination hall. Use of calculators is not allowed.**
15. The candidates will not be allowed to leave the Examination Hall/Room before the expiry of the allotted time.

(1075)

- Which of the following volcanic rock types has maximum silica content  
A) Basalt                      B) Dacite                      C) Rhyolite                      D) Andesite
- Smallest wetland in India which comes under Ramsar convention is  
A) Loktak                      B) Chilka                      C) Ropar                      D) Renuka
- What is pH of normal rain water?  
A) 2.4                      B) 5.6                      C) 7.0                      D) 8.8
- The process of applying fertilizer at the time of germination of the seed is called  
A) Sediment treatment                      B) Set treatment  
C) Seedling treatment                      D) Soil treatment
- UNCCD stands for  
A) United Nations Convention to Combat Desertification  
B) United Nations Convention to Combat Deforestation  
C) United Nations Convention to Combat Desalinization  
D) United Nations Convention to Combat Defamation
- Suspended colloidal matter in water can be measured with  
A) Spectrophotometer                      B) Turbidity meter  
C) Colorimeter                      D) pH meter
- When methanol is used as a fuel in the automobiles, emission of which pollutant increases significantly?  
A) PAN                      B) Formaldehyde                      C) CO                      D) Oxides of nitrogen
- When water containing humic acid is chlorinated which of the following compound forms?  
A) Furans                      B) Dioxins                      C) Carbamates                      D) Trihalomethanes
- Which of the following factor reduce the intensity of UV -B radiations on earth's surface  
A) Altitude                      B) the stratospheric ozone layer  
C) Air                      D) Snow
- The topmost layer of water in a lake is known as  
A) Epigeal                      B) Epiphytic zone                      C) Epilimnion                      D) Troposphere
- A thunderstorm has ..... stages of development  
A) 2                      B) 4                      C) 6                      D) 3
- Of the total amount of energy that passes from one trophic level to another, about 10% is  
A) Transpired                      B) Burnt in respiration  
C) Stored in body tissues                      D) Lost as heat

13. The word *sustainable development* was brought in common use by  
 A) Brundtland Commission report                      B) Earth Summit at Rio  
 C) Stockholm Summit                                      D) Montreal Protocol
14. Lakes in Sweden are fishless because of  
 A) Dumping of sewage wastes in lakes              B) Pesticide residues  
 C) Acid rain                                                      D) Over fishing
15. Soils containing free calcium carbonate are  
 A) Arid                                                              B) Podsols                                                      C) Calcareous                                                      D) Alluvial
16. Which of the following is a plant product?  
 A) Artemisinin                                              B) Atrazine                                                      C) Alachlor                                                      D) 2,4-D
17. Bharat Stage II norms (EURO II norms) for automobile exhaust will be applicable in country from  
 A) January 1, 2005    B) April 1, 2005                                              C) June 5, 2005                                              D) March 1, 2005
18. Which of the following disaster is related to SMOG?  
 A) Oleum gas leak (Delhi 1986)                              B) Bhopal (1986)  
 C) London (1952)                                              D) Chernobyl (1964)
19. The term EIA stemmed from  
 A) UNEP                                                              B) UNDP                                                              C) FAO                                                              D) Brundtland Commission
20. Teesta Basin is situated in  
 A) Meghalaya                                                      B) Nagaland                                                      C) Sikkim                                                              D) Manipur
21. Areas are known to suffer from water logging when depth of groundwater is between  
 A) 0-2 m                                                              B) 3-5 m                                                              C) 5-10 m                                                              D) 10-15 m
22. Which of the following is a Biosphere Reserve as well as World Heritage Site?  
 A) Western Ghats                                                      B) Kaziranga National Park  
 C) Sunderbans                                                              D) Gulf of Mannar
23. Ecosystem in flowing water are known as  
 A) Lotic                                                              B) Lentic                                                              C) Limnetic                                                              D) Benthic
24. Our earth is  
 A) Perfect sphere                                                      B) Ellipse                                                              C) Geoid                                                              D) Parabola
25. Dioxins are produced during burning of  
 A) Straw                                                              B) Residues                                                              C) Paper                                                              D) Polyethylene

26. The use of plants for treating pollution is called as  
 A) Remediation  
 B) Plant pathology  
 C) Pollution biology  
 D) Phytoremediation
27. Which of the following is common allergen?  
 A) Pollen grains  
 B) Smoke  
 C) SPM  
 D) Mercury
28. Mechanism of separation of species due to geographical boundaries is known as  
 A) Sympatric  
 B) Allopatric  
 C) Parapatric  
 D) Allelopatric
29. PVA stands for  
 A) Population Viability Accountancy  
 B) Population Viability Analysis  
 C) Population Vigority Analysis  
 D) Population Variety Analysis
30. Which of the following is not a bacterial indicator?  
 A) Total coliforms  
 B) Fecal conforms  
 C) *Clostridium perfringens*  
 D) Nanobacteria
31. Foods without pesticides are  
 A) Organic foods  
 B) GM foods  
 C) Junk food  
 D) Raw food
32. Which of the following is a common constituent of skin peelers?  
 A) Methacrylate  
 B) Acetonitrile  
 C) Resorcinol  
 D) Acrylamide
33. Which of the following diseases is not caused by bacteria?  
 A) Cholera  
 B) Diabetes  
 C) Pertussis  
 D) Diphtheria
34. Which of the following contains lead?  
 A) Paint  
 B) Synthetic Food Additives  
 C) Cosmetics  
 D) Neem oil
35. Sodium benzoate is commonly used in the foodstuffs as  
 A) Sweetener  
 B) Colouring agent  
 C) Flavouring agent  
 D) Preservative
36. Which of the following is responsible for fluctuations in a population?  
 A) Environment Homogeneity  
 B) Environment Stability  
 C) Environment compatibility  
 D) Environment Stochasticity
37. For a set of data, the values of mean and variance are 20 and 64, respectively. Its coefficient of variation is .....%  
 A) 20  
 B) 30  
 C) 40  
 D) 50
38. Ultimate source of energy for all living beings is  
 A) Fats  
 B) Carbohydrates  
 C) ATP  
 D) Sunlight.

39. Alpha diversity refers to
- Rate of replacement of species along a gradient of habitat
  - Diversity of organisms sharing same habitat
  - Diversity of habitat over the geographical area
  - Diversity of organisms in different habitat
40. Which of the following model is related to age specific survivability?
- Lotka Volterra
  - Draxler
  - Leslie
  - Box
41. Soils containing free calcium carbonate are
- Arid
  - Calcareous
  - Podsols
  - Alluvial
42. Which of the following is a Biosphere Reserve as well as World Heritage Site?
- Western Ghats
  - Kaziranga National Park
  - Sunderbans
  - Gulf of Mannar
43. Plant communities in the past were known as
- Biota
  - Biotope
  - Biome
  - Biococnosis
44. Which states in India have problems with over exploitation of groundwater?
- Haryana, Punjab and Uttar Pradesh
  - Himachal Pradesh, J & K, Kerala
  - Tamil Nadu, Karnataka, Kerala
  - Meghalaya, Manipur, Nagaland
45. Which sector is the single largest consumer of water accounting for 93% of the total withdrawal of fresh water in India?
- Agriculture
  - Industry
  - Domestic
  - Power
46. World Water Day is celebrated every year on
- January 22
  - February 22
  - March 22
  - April 22
47. How many times can you recycle aluminium?
- 2 times
  - 5 times
  - 25 times
  - Forever
48. Which of the following has highest intensity of noise?
- Motor Cycle
  - Train Whistle
  - Jet take off
  - Space Rocket (launching)
49. Which of the following is the most potent disinfectant of water?
- Chlorine
  - Bromine
  - Fluorine
  - Hydrogen Sulphide
50. Which popular brand takes its name from a particular species of Deer native of South Africa?
- Reebok
  - Puma
  - Adidas
  - Lacoste

x-x-x