Entrance Examination for Admission to the P.G. Courses in the Teaching Departments, 2022

CSS

ENVIRONMENTAL SCIENCE

General Instructions

1. The Question Paper is having two Parts — Part 'A' Objective type (60%) & Part 'B' Descriptive type (40%).

2. Objective type questions which carry 1 mark each are to be (✓) 'tick marked' in the response sheets against the appropriate answers provided.

3. 8 questions are to be answered out of 12 questions carrying 5 marks each in Part 'B'.

4. **Negative marking** : 0.25 marks will be deducted for each wrong answer in Part 'A'.

Time : 2 Hours   **Max. Marks : 100**

To be filled in by the Candidate										
Register Number	in Figures									
	in words									

PART – A

(Objective Type)

Choose appropriate answer from the options in the questions. **One** mark **each**.

(60 × 1 = 60 marks)

1. Which of the following is the cause of Plumbism

   a) Mercury   b) Silica

   c) Cadmium   d) Lead

_____

2. Example for an air borne bacterial disease

   a) Diarrhea   b) Asthma

   c) Tuberculosis   d) Silicosis

3. Amoebiasis is

   a) Water born disease   b) Parasitic infection

   c) Air borne disease   d) Bacterial disease

N – 3590

4. Who coined the term 'Ecosysytem'
   a) E.P Odum   b) Haeckel
   c) A.G Tansley   d) O. Wilson

5. The interaction between hermit crab and sea anemone is example for
   a) Proto-cooperation   b) Commensalism
   c) Predation   d) Competition

6. Benzene can lead to
   a) Leukemia   b) Stomach cancer
   c) Skin cancer   d) Throat cancer

7. CBRs means
   a) Community Biodiversity Register
   b) Community Biological Register
   c) Centre of Botanical Research
   d) Centre for Biological Research

8. Air pollution control act in India was passed in
   a) 1984   b) 1981
   c) 1986   d) 980

9. The person popularly known as Water Man in India is:
   a) Medha Patekar   b) Rajendra Singh
   c) S.L. Bahuguna   d) Baba Amte

10. Which one is the primary pollutant?
   a) CO_2 b) H_2SO_4
   c) Carbonic acid   d) Ozone

11. Small pieces of solid materials dispersed into the atmosphere is called

   a) Particulate
   b) Aerosols
   c) Pollen grains
   d) Hail

12. An example for non-exhaustible resources is

   a) Wildlife
   b) Minerals
   c) Fossil fuels
   d) Water

13. First Thermal power plant in Kerala

   a) Brabmapuram plant
   b) Kayamkulam plant
   c) Kozhikode plant
   d) Idukki plant

14. CPCB means

   a) Central pollution control board
   b) Central public control board
   c) Central population control board
   d) Central Plantation control board

15. ————————— % of earth surface is covered by water.

   a) 71%
   b) 75%
   c) 90%
   d) 80%

16. The source of E. coil in waste water is

   a) Vegetable waste
   b) Human excreta
   c) Agricultural waste
   d) Industrial wastes

17. Pedogenesis related to :

   a) Minerals
   b) Soil
   c) Fossil fuels
   d) Landslide

4

18. The nutrients causing Eutrophication is

    a) Lead and Cadmium   b) Mercury and Arsenic

    c) Phosphate and Nitrate   d) Iron and Cobalt

19. The source of arsenic in ground water is

    a) Rocks   b) Industries

    c) Agriculture   d) Sewage

20. Which ecological cycle is directly driven by sunlight?

    a) Nitrogen   b) Phosphorus

    c) Hydrologic   d) Carbon

21. Sedimentation is a

    a) Primary water treatment   b) Secondary water treatment

    c) Tertiary water treatment d) None of these

22. A plant came from America which has become hazardous water weed in India, is:

    a) Typha   b) Eichhornia

    c) Trapa   d) Cyperus

23. Ozone molecules are concentrated in the ————————— layer of atmosphere.

    a) Troposphere   b) Stratosphere

    c) Mesosphere   d) Ionosphere

24. The biosphere reserve 'Gulf of Mannar' is located in which state

    a) Tamil Nadu   b) Bihar

    c) Kerala   d) Karnataka

25. The elimination of some species seriously affects the ecosystem. These are called ——————

a) Key stone species
b) Endangered species
c) Endemic species
d) Exotic species

26. The cyclone which has striked Kerala coast in 2021

a) Kathrina
b) Ockhi
c) Tauktae
d) Burevi

27. —————— Forests grow in the high rain fall areas of the Western Ghats

a) Ever green
b) Deciduous
c) Coniferous
d) Scrub

28. Climate change conference, COP26 was held at:

a) Paris
b) Sweden
c) Glasgow
d) Malidives

29. What is the name of world's first greenhouse-gas-monitoring satellite?

a) ICESat
b) Jason-1
c) NPOESS
d) Ibuki

30. Kokkare Bellure, one of the ten breeding site of an endangered species Pelican is situated in

a) Rajasthan
b) Maharashtra
c) Karnataka
d) Tamil Nadu

31. Which pyramid is always straight?

a) Pyramid of biomass
b) Pyramid of number
c) Pyramid of energy
d) Pyramid of number and biomass

32. ―――――― tree is known as 'flame of the forest'?

    a) *Zizyphus* sp.   b) *Butea monosperma*

    c) Jack fruit   d) Neem

33. The very rare endemic species seen in Little Rann of Kutch.

    a) Chital   b) Indian Wild Ass

    c) Nilgai   d) Elephant

34. The only floating National Park in India

    a) Corbett   b) Keibul Lamjoo

    c) Kaziranga   d) Keoladeo Ghana

35. Which one of the following method is used for the estimation of dissolved oxygen content in water?

    a) Argentometric method   b) Winkler's method

    c) Gravimetric method   d) Permanganate method

36. Photochemical smog pollution does not contain the following:

    a) PAN   b) Carbon dioxide

    c) Ozone   d) Nitrogen dioxide

37. The state of India with highest percentage of its area covered by forest is

    a) Rajasthan   b) Karnataka

    c) Bihar   d) Madhya Pradesh

38. An example for ex-situ conservation is ――――――

    a) Wild Life Sanctuaries   b) National Parks

    c) Zoological Parks   d) None of these

39. Who had stated in the Stockholm Conference in 1972 that poverty was the greatest polluter?

    a) Indira Gandhi

    b) Mahatma Gandhi

    c) Rajiv Gandhi

    d) Narasimha Rao

40. In which year the honourable Supreme Court of India issued a directive to make all curricula environment oriented:

    a) 1988

    b) 1991

    c) 1995

    d) 2000

41. Walkley and Black rapid titration method is used for the determination of:

    a) Phosphate content of soil

    b) Nitrate content of soil

    c) Organic carbon content of soil

    d) Fluoride content of soil

42. Chipko movement was led against

    a) Afforestation

    b) Deforestation

    c) Water scarcity

    d) Nuclear pollution

43. During 1997, severe destruction of coral reefs in Pacific Ocean occurred due to _____

    a) E1 Nino

    b) Global Warming

    c) Tornados

    d) Tsunami

44. The main causative agent of global warming is

    a) NO_2

    b) SO_2

    c) CO_2

    d) NO

45. The destruction of ozone layer causes increased incidence of

    a) Skin cancer and Cataracts

    b) Leukemia and Astigmatism

    c) Leprosy and Myopia

    d) Tuberculosis

46. Which state proposed a ban on all types of polythene packing for the first time in India?

   a)   Himachal Pradesh   b)   Madhya Pradesh

   c)   Kerala   d)   Tami Nadu

47. Biosphere reserve programme was launched by

   a)   IUCN   b)   WCMC

   c)   UNESCO   d)   None of these

48. The Environment (Protection) Act was passed in the year

   a)   1983   b)   1987

   c)   1986   d)   1984

49. A biosphere reserve in Kerala

   a)   Idukki.   b)   Anamudi

   c)   Peerumedu   d)   Agasthyamala

50. The Forest Conservation Act of 1980 was enacted to

   a)   To control deforestation   b)   Afforestation

   c)   Forest protection   d)   Reforestation

51. The projects that already exist but require expansion must also apply for clearance is called

   a)   Green-field projects   b)   Brown- field projects

   c)   Blue -field projects   d)   Red field project

52. The area where two major communities meet and blend together is termed:

   a)   Ecotone   b)   Biotype

   c)   Ecotype   d)   Meeting place

9

53. In which year Silent Valley was declared as National Park?

a) 1988   b) 1982

c) 1984   d) 1980

54. The workers of Asbestos factory may suffer front

a) Dysentry   b) Vomiting

c) Lung cancer   d) Leukaemia

55. The world Forestry day is

a) February-2   b) March-21

c) April-7   d) June -5

56. The biotic element of bioremediation is

a) Hydrophytes   b) Microorganisms

c) Phytoplankton   d) Zooplankton

57. Scoping is a methodological step of

a) Environment Audit   b) EIA

c) EC   d) EMP

58. The World Ozone day is

a) June-11   b) August-6

c) September-16   d) July-I

59. Chi-square test is commonly used for testing:

a) Association   b) Relationship

c) Dominance   d) Distribution

60. One of the most commonly used bio-pesticide

a) *Lacto bacillus*   b) *Bacillus thuringiensis*

c) *Rhizobium*   d) *Nitrobacter*

ANSWER SHEET — PART – A

1	A	B	C	D	E
2	A	B	C	D	E
3	A	B	C	D	E
4	A	B	C	D	E
5	A	B	C	D	E
6	A	B	C	D	E
7	A	B	C	D	E
8	A	B	C	D	E
9	A	B	C	D	E
10	A	B	C	D	E
11	A	B	C	D	E
12	A	B	C	D	E
13	A	B	C	D	E
14	A	B	C	D	E
15	A	B	C	D	E
16	A	B	C	D	E
17	A	B	C	D	E
18	A	B	C	D	E
19	A	B	C	D	E
20	A	B	C	D	E

21	A	B	C	D	E
22	A	B	C	D	E
23	A	B	C	D	E
24	A	B	C	D	E
25	A	B	C	D	E
26	A	B	C	D	E
27	A	B	C	D	E
28	A	B	C	D	E
29	A	B	C	D	E
30	A	B	C	D	E
31	A	B	C	D	E
32	A	B	C	D	E
33	A	B	C	D	E
34	A	B	C	D	E
35	A	B	C	D	E
36	A	B	C	D	E
37	A	B	C	D	E
38	A	B	C	D	E
39	A	B	C	D	E
40	A	B	C	D	E

41	A	B	C	D	E
42	A	B	C	D	E
43	A	B	C	D	E
44	A	B	C	D	E
45	A	B	C	D	E
46	A	B	C	D	E
47	A	B	C	D	E
48	A	B	C	D	E
49	A	B	C	D	E
50	A	B	C	D	E
51	A	B	C	D	E
52	A	B	C	D	E
53	A	B	C	D	E
54	A	B	C	D	E
55	A	B	C	D	E
56	A	B	C	D	E
57	A	B	C	D	E
58	A	B	C	D	E
59	A	B	C	D	E
60	A	B	C	D	E

N – 3590

ENVIRONMENTAL SCIENCE

PART – B
(Descriptive Type)

Answer **any eight** questions.   **(8 × 5 = 40 Marks)**

1. Write a note on structural and functional aspects of ecosystem.

2. Briefly describe the various interactions among living organisms.

3. What is the relevance of renewable energy resources?

4. Explain the causes of loss of biodiversity.

5. How the climate change affects the agricultural system?

6. With the help of a neat diagram, explain the structure and composition of atmosphere.

7. Explain the adverse effect on pesticide pollution.

8. What is the need of solid waste management?

9. Write a note on major sources of water pollution.

10. Distinguish between BOD and COD. What is its importance in water quality monitoring.

11. What is sustainable development? How to achieve it?

12. Suggest some scientific methods for the disposal of hazardous wastes.

———————————