

Code No.

V – 2347

**Entrance Examination for Admission to the P.G. Courses in the
Teaching Departments, 2025**

CSS

ENVIRONMENTAL SCIENCE

For office use only

General Instructions

1. The Question Paper is having 100 Objective Questions, each carrying one mark.
2. The answers are to be (✓) 'tick marked' **only** in the "**Response Sheet**" provided.
3. **Negative marking : 0.25 marks** will be deducted for each wrong answer .

Time : 2 Hours

Max. Marks : 100

To be filled in by the Candidate

Register Number	in Figures								
	in words								

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Choose appropriate answer from the options in the questions.

(100 × 1 = 100 marks)

1. Plant succession on sand dunes is termed
 - A. Psammosere
 - B. Xerosere
 - C. Halosere
 - D. Hydrosere

DO NOT WRITE HERE

-
2. Final stage of ecological succession is called
- A. Successional Stage
 - B. Climax Community
 - C. Pioneering Stage
 - D. Transition Stage
3. The term "ecosystem" was first proposed by
- | | |
|-------------------|------------------|
| A. Charles Darwin | B. Ernst Haeckel |
| C. Arthur Tansley | D. Eugene Odum |

4. Which of the following is not an ecosystem function?
- A. Energy flow
 - B. Nutrient cycling
 - C. Transportation
 - D. Decomposition
5. The role and position a species has in its environment is called
- A. Habitat
 - B. Niche
 - C. Territory
 - D. Zone
6. Which of the following correctly matches an organism with the interaction type
- A. Lichen - Competition
 - B. Tick on dog - Mutualism
 - C. Shark and Remora - Commensalism
 - D. Orchid on tree – Predation
7. The Mycorrhizal association between fungi and plant roots is an example of
- A. Predation
 - B. Parasitism
 - C. Commensalism
 - D. Mutualism
8. Which of the following interactions is negative-negative (-/-)?
- A. Parasitism
 - B. Predation
 - C. Competition
 - D. Mutualism
9. The 'Wallace Line' passes between which islands?
- A. Java and Borneo
 - B. Bali and Lombok
 - C. Sumatra and Java
 - D. Borneo and Sulawesi
10. The term "biotic interchange" refers to
- A. New invasive species emerging
 - B. Exchange of species across formerly separated regions
 - C. Extinction of native species
 - D. Creation of new continents

18. Which one of the following is *not* a biodiversity hotspot?
- | | |
|-------------------|------------------|
| A. Deccan Plateau | B. Western Ghats |
| C. Indo-Burma | D. Himalaya |
19. Project Tiger was launched in which year?
- | | |
|---------|---------|
| A. 1971 | B. 1972 |
| C. 1973 | D. 1975 |
20. The first Biosphere Reserve established in India?
- | | |
|---------------|-------------------|
| A. Sundarbans | B. Nilgiri |
| C. Nanda Devi | D. Gulf of Mannar |
21. The largest mangrove forest in the world is
- | | |
|---------------------|-----------------|
| A. Amazon Mangroves | B. Mekong Delta |
| C. Congo Mangroves | D. Sundarbans |
22. Which Indian state has the maximum number of National Parks?
- | | |
|--------------|-------------------|
| A. Assam | B. Madhya Pradesh |
| C. Karnataka | D. Uttarakhand |
23. Which of the following is an example of ex-situ conservation?
- | | |
|-----------------------|---------------------|
| A. Biosphere Reserve | B. National Park |
| C. Wildlife Sanctuary | D. Botanical Garden |
24. Which country is leading in installed wind energy capacity as of 2024?
- | | |
|------------|----------|
| A. Germany | B. India |
| C. China | D. USA |
25. The most abundant element in the Earth's crust is
- | | |
|------------|--------------|
| A. Iron | B. Oxygen |
| C. Silicon | D. Aluminium |

26. Weathering without chemical change is called
- A. Biological Weathering
 - B. Physical Weathering
 - C. Chemical Weathering
 - D. Carbonation
27. The youngest mountains in India are
- A. Aravallis
 - B. Vindhyas
 - C. Himalayas
 - D. Satpuras
28. Which river is known as the Dakshin Ganga?
- A. Krishna
 - B. Kaveri
 - C. Godavari
 - D. Mahanadi
29. Cyclones are called typhoons when they occur in
- A. Atlantic Ocean
 - B. Indian Ocean
 - C. Northwest Pacific Ocean
 - D. Mediterranean Sea
30. The Richter scale measures
- A. Earthquake Duration
 - B. Earthquake Magnitude
 - C. Earthquake Depth
 - D. Earthquake Location
31. Who proposed the 'Germ Theory of Disease'?
- A. Louis Pasteur
 - B. Robert Hooke
 - C. Charles Darwin
 - D. Isaac Newton

32. Radioactive isotope used in dating fossils:
- A. Uranium-238
 - B. Carbon-14
 - C. Potassium-40
 - D. Lead-206
33. Which metal is liquid at room temperature?
- A. Lead
 - B. Mercury
 - C. Sodium
 - D. Magnesium
34. The phenomenon of splitting of white light into its component colours is called:
- A. Reflection
 - B. Refraction
 - C. Dispersion
 - D. Diffraction
35. Catalyst increases the rate of reaction by :
- A. Increasing activation energy
 - B. Decreasing activation energy
 - C. Increasing product energy
 - D. Decreasing reactant energy
36. A particle moving at constant speed in a circle is
- A. In uniform linear motion
 - B. Accelerating
 - C. Not accelerating
 - D. At equilibrium
37. Which of the following is NOT a greenhouse gas?
- A. Methane
 - B. Carbon dioxide
 - C. Nitrous oxide
 - D. Oxygen
38. The bending of waves around obstacles is called
- A. Diffraction
 - B. Refraction
 - C. Reflection
 - D. Dispersion

39. Eutrophication is primarily caused by excessive input of
- A. Oxygen
 - B. Nitrogen and phosphorus
 - C. Carbon dioxide
 - D. Sulphur compounds
40. Bioaccumulation of pesticides occurs primarily in
- A. Bones
 - B. Liver
 - C. Fat tissues
 - D. Blood plasma
41. Turbidity is an indicator of
- A. Chemical composition
 - B. Biological activity
 - C. Dissolved oxygen
 - D. Suspended solids
42. In air pollution, PM_{2.5} refers to particulate matter with a diameter less than
- A. 2.5 cm
 - B. 2.5 mm
 - C. 2.5 micrometers
 - D. 2.5 nanometers
43. The largest reservoir of carbon is
- A. Atmosphere
 - B. Oceans
 - C. Forests
 - D. Soil
44. Which city hosted COP29 in 2024?
- A. Paris
 - B. Glasgow
 - C. Baku
 - D. New Delhi
45. The Indian Wildlife Protection Act was enacted in
- A. 1972
 - B. 1952
 - C. 1986
 - D. 1992

46. Point inside Earth where earthquake originates
- A. Epicenter
 - B. Focus
 - C. Fault Line
 - D. Rift
47. IPCC stands for
- A. Intergovernmental Panel on Climate Change
 - B. International Panel on Climate Control
 - C. International Protocol for Climate Care
 - D. Intergovernmental Program for Climate Conservation
48. The Montreal Protocol is associated with the control of
- A. CO₂ emissions
 - B. Oil spills
 - C. Plastic waste
 - D. Ozone-depleting substances
49. The 'Great Pacific Garbage Patch' is mainly composed of
- A. Heavy metals
 - B. Microplastics
 - B. Floating plants
 - D. E-waste
50. Earth Overshoot Day marks:
- A. End of UN climate talks
 - B. Peak global oil production
 - C. The day humanity's resource consumption exceeds Earth's capacity
 - D. Maximum CO₂ levels
51. Which international summit popularized sustainable development?
- A. Earth Summit, 1992
 - B. Kyoto Protocol, 1997
 - C. Paris Agreement, 2015
 - D. Montreal Protocol, 1987

52. "Silent Spring" was authored by
- | | |
|--------------------|-------------------|
| A. Rachel Carson | B. Jane Goodall |
| C. Wangari Maathai | D. Greta Thunberg |
53. Energy from the sun reaches Earth mainly through
- | | |
|---------------|---------------|
| A. Conduction | B. Convection |
| C. Radiation | D. Reflection |
54. Which type of electromagnetic radiation causes the greenhouse effect?
- | | |
|---------------------|-----------------------|
| A. Ultraviolet rays | B. Infrared radiation |
| C. X-rays | D. Gamma rays |
55. The process of converting nitrates into nitrogen gas is called
- | | |
|--------------------|-------------------|
| A. Nitrification | B. Ammonification |
| C. Denitrification | D. Fixation |
56. Which metal is known to cause Itai-Itai disease?
- | | |
|------------|------------|
| A. Lead | B. Mercury |
| C. Cadmium | D. Arsenic |
57. Device used to measure atmospheric pressure is called:
- | | |
|----------------|---------------|
| A. Thermometer | B. Barometer |
| C. Altimeter | D. Hygrometer |
58. Which biome is known for permafrost soil?
- | | |
|------------------------|------------|
| A. Desert | B. Tundra |
| C. Tropical rainforest | D. Savanna |
59. A species found only in a particular region is called:
- | | |
|------------|---------------|
| A. Alien | B. Endangered |
| C. Endemic | D. Threatened |

60. The "One Sun One World One Grid" (OSOWOG) initiative is led by :
A. USA
B. China
C. India
D. Australia
61. Which year was declared the 'International Year of Sustainable Mountain Development' ?
A. 2021
B. 2022
C. 2023
D. 2024
62. Which international summit introduced Agenda 21?
A. Johannesburg Summit
B. Rio Summit
C. Copenhagen Summit
D. Paris Summit
63. The theme for Earth Day 2025 is likely to focus on :
A. Renewable Energy
B. Climate Change
C. Forest Conservation
D. Air Quality
64. The Ramsar Convention is related to :
A. Climate change
B. Wetlands
C. Forests
D. Oceans
65. The REDD+ mechanism relates to
A. Fisheries management
B. Forest conservation
C. Air quality monitoring
D. Groundwater recharge
66. The three "Rs" of waste management hierarchy is/are-
A. Reduce, Redox and Reoxidation
B. Reuse, Reimburse and Regain
C. Regain, Recycle and Resend
D. Reduce, Reuse and Recycle

67. Which zone of a lake has the highest productivity?
 - A. Littoral Zone
 - B. Limnetic Zone
 - C. Profundal Zone
 - D. Benthic Zone
68. Which of the following gases is used in refrigerators and damages ozone?
 - A. CO_2
 - B. CFC
 - C. CH_4
 - D. O_3
69. Variance is the square of :
 - A. Mean
 - B. Median
 - C. Standard Deviation
 - D. Mode
70. In a two-sample t-test, the two samples must be
 - A. Dependent
 - B. Independent
 - C. Categorical
 - D. Ranked
71. The soil horizon rich in organic material is called
 - A. A-horizon
 - B. B-horizon
 - C. C-horizon
 - D. R-horizon
72. Which of the following gases has the highest Global Warming Potential (GWP)?
 - A. CO_2
 - B. CH_4
 - C. N_2O
 - D. SF_6
73. The main ion present in hard water is :
 - A. Na^+
 - B. Mg^{2+}
 - C. K^+
 - D. Cl^-

74. Which organization publishes the Red Data Book?
 - A. WWF
 - B. UNEP
 - C. IUCN
 - D. WHO
75. The solar constant is approximately
 - A. 1361 W/m^2
 - B. 1000 W/m^2
 - C. 500 W/m^2
 - D. 2000 W/m^2
76. The first national park in India is
 - A. Gir
 - B. Jim Corbett
 - C. Kaziranga
 - D. Bandhavgarh
77. Biomagnification refers to
 - A. Increase in species diversity
 - B. Increase in pollutant concentration along food chains
 - C. Decrease in pollutant concentration
 - D. Magnification of genetic traits
78. The Mohs scale is used to measure
 - A. Hardness of minerals
 - B. Density of rocks
 - C. Temperature of lava
 - D. Thickness of soil
79. The study of algae is called
 - A. Mycology
 - B. Bryology
 - C. Phycology
 - D. Ecology
80. International Day of Forests is celebrated on:
 - A. 5th June
 - B. 21st March
 - C. 23rd March
 - D. 16th October

81. DDT is an example of:
- A. Biodegradable pesticide
 - B. Non-biodegradable pesticide
 - C. Herbicide
 - D. Fertilizer
82. Bhopal Gas tragedy in 1984 was caused by
- A. Carbonyl chloride
 - B. Carbon monoxide
 - C. Methyl cyanide
 - D. Methyl isocyanate
83. Which of following is related to the 2nd law of thermodynamics?
- A. Entropy
 - B. Enthalpy
 - C. Internal Energy
 - D. Work function
84. Dobson unit is a measure of concentration of
- A. PAN
 - B. CFC
 - C. Ozone
 - D. PAH
85. The Energy flow is
- A. Unidirectional
 - B. Cyclic
 - C. Sometimes cyclic
 - D. Always Unidirectional
86. Dioxin is
- A. a pesticide
 - B. a petrochemicals
 - C. a heavy metal
 - D. an organic chemical

87. The transitional zone between freshwater and terrestrial ecosystems is known as
- A. Riparian Zone
 - B. Hyporheic Zone
 - C. Benthic Zone
 - D. Epilimnetic Zone
88. Which harmful metal can be found in newspaper ink?
- A. Cd
 - B. Pb
 - C. Mg
 - D. Hg
89. Largest amount of freshwater is present in
- A. Lakes
 - B. Rivers
 - C. Underground
 - D. Glaciers and Polar Ice
90. A hazardous waste is characterised by
- A. Ignitibility
 - B. Reactivity
 - C. Toxicity
 - D. All of the above
91. Natural gas is composed primarily of :
- A. Methane
 - B. n-butane
 - C. n-octane
 - D. A mixture of n-butane and n-octane
92. Lightening in the atmosphere produces
- A. NO
 - B. CO
 - C. CO₂
 - D. NH₃
93. Identify mesoscale phenomenon
- A. Tornado
 - B. Sea breeze
 - C. Cyclone
 - D. Eddies

94. The atmospheric layer which is in contact with the surface of Earth is called
 - A. Stratosphere
 - B. Ionosphere
 - C. Troposphere
 - D. Mesosphere
95. Ozone hole in the stratosphere was discovered over the continent of
 - A. North America
 - B. Australia
 - C. Greenland
 - D. Antarctica
96. Carbon monoxide is harmful for human because
 - A. It is carcinogenic
 - B. It damages kidney
 - C. It competes with oxygen in blood
 - D. It changes pH of body
97. Taj Mahal is threatened due to the effect of
 - A. Chlorine
 - B. Sulphur dioxide
 - C. Oxygen
 - D. Hydrogen
98. Component of biosphere related to soil is
 - A. Lithosphere
 - B. Hydrosphere
 - C. Atmosphere
 - D. None of the above
99. Which of the following term is related to coal
 - A. Magnesite
 - B. Limonite
 - C. Bituminous
 - D. Haematite
100. At what temperature does pure water reach its maximum density?
 - A. 0°C
 - B. 4°C
 - C. 25°C
 - D. 100°C

RESPONSE SHEET

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
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70	A	B	C	D	E
71	A	B	C	D	E
72	A	B	C	D	E
73	A	B	C	D	E
74	A	B	C	D	E
75	A	B	C	D	E
76	A	B	C	D	E
77	A	B	C	D	E
78	A	B	C	D	E
79	A	B	C	D	E
80	A	B	C	D	E
81	A	B	C	D	E
82	A	B	C	D	E
83	A	B	C	D	E
84	A	B	C	D	E
85	A	B	C	D	E
86	A	B	C	D	E
87	A	B	C	D	E
88	A	B	C	D	E
89	A	B	C	D	E
90	A	B	C	D	E
91	A	B	C	D	E
92	A	B	C	D	E
93	A	B	C	D	E
94	A	B	C	D	E
95	A	B	C	D	E
96	A	B	C	D	E
97	A	B	C	D	E
98	A	B	C	D	E
99	A	B	C	D	E
100	A	B	C	D	E

ROUGH WORK

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