

Mention the Branch, Group-number and Reg. Number without fail on the regular answer sheet (for Section A) as well as objective answer sheet (for Section B)

READ THE INSTRUCTIONS BEFORE ANSWERING THE QUESTIONS

- THE QUESTION PAPER HAS TWO SECTIONS:
SECTION 'A' (SHORT ANSWER QUESTIONS) & SECTION 'B' (OBJECTIVE QUESTIONS).
- ANSWER THE QUESTIONS FOR SECTION 'A' IN REGULAR ANSWER BOOK.

SECTION A (20 MARKS)

(EACH QUESTION IS OF 1 MARK – 20 QUESTIONS X 1 = 20 MARKS)

**ANSWERS SHOULD BE PRECISE AND MAXIMUM OF TWO-THREE SENTENCES
WRITE ANSWERS IN REGULAR ANSWER BOOK**

1. List functional components of ecosystem.
2. What are different natural and man-made impacts on the environment?
3. What are causes that pose threat to biodiversity?
4. What is eutrophication?
5. List the major environmental laws in India.
6. What does Scoping in EIA constitute?
7. How is thermal pollution caused?
8. What is ecological succession?
9. List the sources of marine pollution?
10. Why is it necessary to involve public in EIA?
11. What are the advantages of vermicomposting over conventional composting?
12. What is a Dobson unit?
13. What is the significant difference between COD and BOD?
14. List ecological benefits of biodiversity?
15. What are the organisms involved with nitrogen fixation in root zone?
16. What is leaching of pollutant?
17. What is Love Canal famous for?
18. What are environmental ethics?
19. What are induced species?
20. What is the difference between Solar-Thermal and Solar-photovoltaic devices?

SECTION B (OBJECTIVE QUESTIONS) STARTS FROM NEXT PAGE

Name _____ Branch/Group _____ Reg. _____

SECTION B (40 MARKS)

(EACH QUESTION IS OF 0.5 MARKS – 80 QUESTIONS X 0.5 = 40 MARKS)

THERE IS NEGATIVE MARKING OF 0.25 FOR EVERY WRONG ANSWER IN SECTION 'B'

ATTACH/TIE-UP SECTION 'B' ALONG WITH REGULAR ANSWER BOOK (used for section A)

QUESTION(S) NOT ATTEMPTED SHOULD BE MARKED 'X'

ANSWER WITH OVER WRITING OR CUTTING WILL BE CONSIDERED AS WRONG ANSWER;

USE ONLY BALL PEN OR INK PEN FOR ANSWERING

No	ANSWER IN CAPITAL LETTERS ONLY	Answer
	The dominant component of the complex community of forest is	()
	A. Water	C. Trees
	B. Wildlife	D. Microscopic soil organisms
	Which of the following statements about forests is not true	()
	A. Forests provide employment for many	C. The forest environment provides a perfect opportunity for ecotourism
	B. Some indigenous people completely depend on forests for their livelihood	D. The forest cover of the planet has increased in the 20 th century
	Deforestation results in	()
	A. Loss of species	C. Both a and b
	B. Soil erosion	D. Carbon sequestration
	Which of the following causes deforestation	()
	A. Agriculture	C. Monoculture plantation
	B. Commercial Logging	D. All of the above
	Air pollution from mining activities can cause	()
	A. Respiratory troubles	C. Both a and b
	B. Acid rain	D. None of the above
	Air pollution from mining activities can cause	()
	A. Respiratory troubles	C. Both a and b
	B. Acid rain	D. None of the above
	India has the worlds largest deposits of	()
	A. Coal	C. Both a and b
	B. Mica	D. Gold
	Large dams are commonly associated with	()
	A. Loss of species	C. Inundation
	B. Damage to ecosystems	D. All of the above
	Acceptability of dams could be improved by	()
	A. Minimizing the environmental impacts	C. By conducting regular monitoring and periodic review
	B. Compensating for involuntary resettlement	D. All of the above

Q.No	ANSWER IN CAPITAL LETTERS ONLY	Answer
10	Water on earth is recycled through A. Rain B. Water cycle C. Evaporation D. Carbon cycle	()
11	Food insecurity is a problem related to A. Food production B. Poverty C. Economy D. All of the above	()
12	Hydroelectric power is a A. Nonrenewable source of energy B. Renewable source of energy C. Sustainable source of energy D. None of the above	()
13	Which of the following components of the environment encompass living things? A. Atmosphere B. Hydrosphere C. Lithosphere D. Biosphere	()
14	Which of the following components of the environment is responsible for the large scale recycling of matter on Earth? A. Atmosphere B. Hydrosphere C. Lithosphere D. Biosphere	()
15	Which of the following impacts on hydrosphere is not due to urbanization? A. Greater demand on water resources B. Water pollution C. Leaching of pollutants from landfills D. None of the above	()
16	Ozone depletion will cause A. More ultraviolet radiation from the sun to reach the earth. B. Increased in skin cancer and eye cataracts C. Weakening of human immune system D. All of the above	()
17	Which of the following effects in atmosphere is not due to urbanization? A. Increased average temperatures B. Increased release of carbon dioxide C. Increased release of oxygen D. Air pollution	()
18	World's single largest class of refugees is due to A. War B. Environmental degradation C. Tsunami D. None of the above	()
19	Soil productivity is reduced due to A. Waterlogging B. Salt buildup in topsoil C. Soil erosion D. All of the above	()
20	An ecosystem is a A. Outer cosmic space B. Biotic assemblage of plants, animals, and microbes, taken together with their physico-chemical environment C. Both a and b D. None of the above	()
21	Energy "flows" through the ecosystem in the form of A. Nitrogen-oxygen bonds B. Carbon-carbon bonds C. Carbon dioxide D. All of the above	()

Q.No	ANSWER IN CAPITAL LETTERS ONLY	Answer
22	Trophic level refers to A. Energy level in an ecosystem B. The position of a consumer in the food chain C. Both a and b D. None of the above	()
23	Biomagnification occurs for A. Materials more soluble in water and less soluble in fat B. Materials more soluble in fat and less soluble in water C. Heavy metals only D. None of the above	()
24	In the biogeochemical cycles, chemicals are held in reservoir pools for A. Short duration B. Long duration C. Indefinitely D. None of the above	()
25	The major reservoir of carbon is A. Atmosphere B. Oceans C. Biota D. All of the above	()
26	The complementary reactions dealing with energy in carbon cycle are A. Oxidation and reduction B. Photosynthesis and respiration C. Evaporation and condensation D. All of the above	()
27	Conversion of nitrogen gas to nitrates is called A. Nitrogen fixation B. Denitrification C. Oxidation D. Reduction	()
28	Major source of emission of sulphur into the atmosphere is A. Respiration B. Decomposition of organic matter C. Burning of fossil fuels D. None of the above	()
29	Which of the following statements is false about carbon monoxide A. It is an odorless, colorless gas B. It is poisonous to human beings C. It is the result of incomplete combustion D. It has a lower affinity for hemoglobin compared to oxygen	()
30	Ozone is A. A major harmful ingredient in the photochemical smog B. Highly reactive C. A secondary air pollutant D. All of the above	()
31	Which of the following can cause acid rains A. Sulphur dioxide B. Oxides of nitrogen C. Both a and b D. None of the above	()
32	Dispersion of air pollutants from chimney depends on A. Wind speed B. Wind direction C. Both a and b D. None of the above	()
33	Public hearing in EIA is meant for recording opinions from A. Regulatory agencies B. Local people and interest groups C. Non-resident Indians D. None of the above	()

- | Q.No | ANSWER IN CAPITAL LETTERS ONLY | Answer |
|------|--|--------|
| 34 | Disposal of decomposable organic waste into streams will
A. Affect the aquatic life
B. Cause dissolved oxygen to deplete
C. Make the stream water unfit for drinking purpose
D. All of the above | () |
| 35 | BOD is
A. A measure of the organic matter present in a wastewater
B. Determined in the lab after an incubation period of 5 days
C. Biochemical oxygen demand
D. All of the above | () |
| 36 | Noise could cause
A. Headache
B. Speech interference
C. Hearing loss
D. All of the above | () |
| 37 | Noise could cause
A. Headache
B. Speech interference
C. Hearing loss
D. All of the above | () |
| 38 | Thermal pollution of water bodies could be caused by
A. Air pollution
B. Power plants
C. Automobiles
D. None of the above | () |
| 39 | MSW with high organic and moisture content is ideal for
A. Composting
B. Incineration
C. Both a and b
D. None of the above | () |
| 40 | What are the common characteristic of hazardous wastes
A. Ignitability
B. Corrosivity
C. Reactivity
D. Any of the above | () |
| 41 | Detritus food chain constitutes
A. Herbivores and carnivores
B. Omnivores and carnivores
C. Decomposers and degraders
D. None of the above | () |
| 42 | Biodiversity is
A. Totality of species, populations, communities and ecosystems
B. Variety and variability among living organisms
C. Both a and b
D. None of the above | () |
| 43 | Genetic diversity is
A. Genetic variations within a single species
B. Number of species present in an area
C. Variations in the ecosystem types
D. All of the above | () |
| 44 | Pyrethrin is a
A. Natural insecticide
B. Synthetic pesticide
C. Disinfectant
D. Medicine | () |
| 45 | Neem tree is source of
A. Pyrethrin
B. Calabar
C. Azadirachtin
D. All of the above | () |

- | Q.No | ANSWER IN CAPITAL LETTERS ONLY | Answer |
|------|--|--------|
| 46 | India contains about what percentage of the biodiversity
A 3% C. 16%
B 8% D. 25% | () |
| 47 | India is a mega diverse nation from biodiversity point of view due to
A The vast variety of landforms and climates C. Both a and b
B The large human population D. None of the above | () |
| 49 | India is home to how many world heritage sites
A 3 C. 5
B 4 D. 100 | () |
| 50 | Lion-tailed macaque is
A An endemic species found in the Western Ghats C. An extinct species
B An endemic species found in the Western Himalaya D. None of the above | () |
| 51 | Genetically modified organisms
A Could never have evolved naturally C. Could cause Genetic pollution
B Don't have a natural habitat D. All of the above | () |
| 52 | Sustainable development is
A A pattern of social economic development which optimizes the economic and societal benefits available in the present, without spoiling the likely potential for similar benefits in the future.
B To achieve a reasonable and equitably distributed level of economic wellbeing that can be perpetuated continually for many human generations
C Development that meets the needs of the present without compromising the ability of future generations to meet their own needs
D. All of the above | () |
| 53 | What are the obstructions to the concept of sustainable development in India
A Environmental degradation C. Changing lifestyle
B Uncontrolled urbanization D. All of the above | () |
| 54 | What are the major concerns associated with fossil fuel based energy
A Limited natural reserves of such energy C. Threat to long term sustainability
B Detrimental effects on the global environment D. All of the above | () |
| 55 | Which of the following is considered as a nonconventional energy source
A Nuclear power C. Hydropower
B Solar power D. None of the above | () |
| 56 | Rain water harvesting is
A A recent development for water conservation C. A technique for water purification
B A practice that has been in vogue from ancient times in India D. All of the above | () |

Q.No	ANSWER IN CAPITAL LETTERS ONLY	Answer
57	Water demand in agriculture can be reduced by A Open channel irrigation B Digging wells C. Both a and b D. Sprinkler irrigation	()
58	Major difference between environmental ethics and the conventional philosophy is A Anthropocentrism (human centric) of the conventional philosophy B Assigning intrinsic value to the natural environment and its non-human contents in environmental ethics. C. Opposition to speciesism in environmental ethics D. All of the above	()
59	Which of the following is affected by acid rain A Vegetation B Aquatic life C. Building materials D. All of the above	()
60	Ozone hole is found in the A Troposphere B Stratosphere C. Mesosphere D. None of the above	()
61	The thickness of Ozone layer is by measuring A Dobson units B Chapman units C. Both a and b D. None of the above	()
62	Chlorofluorocarbons are A Inert compounds B Capable of destroying Ozone C. Both a and b D. None of the above	()
63	Which of the following is not a greenhouse gas A Oxygen B Carbon dioxide C. Methane D. Nitrous oxide	()
64	GESAMP is a term related to A Air pollution B Air purification C. Ozone hole D. None of the above	()
65	One of these wastes is combustible and compostable, but not recyclable A Paper waste B Hard Aluminium C. Construction materials D. Food and yard waste	()
66	Moisture content of one the following solid waste is high A Food waste B Construction material C. Glass D. None of the above	()
67	Minamata Disease is associated with A Lead metal B Tributyl Tin C. Both a and b D. Neither a nor b	()
68	The pollutant that caused Bhopal Gas Tragedy was A methylene isocyanide B methoxy isocarmide C. methyl isocyanate D. None of the above	()

- 69 REM is a unit used to measure ()
 A biological contamination C. organic contamination
 B pesticide contamination D. None of the above
- 70 Failure of biogas plants in India is due to ()
 A Lack of technical knowhow C. Climatic variations
 B Cultural practices D. All of the above
- 71 Energy flow in an ecosystem is a consequence of ()
 A Laws of gravitation C. Laws of thermodynamics
 B Mendel's Principles D. Wind energy
- 72 Katkarkalan Village in Punjab is good example for use of ()
 A Hydropower C. Wind energy
 B Solar power D. None of the above
- 73 One of this is an important physical property of solid waste ()
 A Essential nutrients C. Pathogens
 B Density and particle size D. None of the above
- 74 Anthropogenic causes of drought include ()
 A Overgrazing C. Deforestation
 B Cropping patterns D. All of the above
- 75 Subsidence of land and acid drainage are associated with impacts of ()
 A Marine pollution C. Organic pollution
 B monoculture plantation D. None of the above
- 76 One of this is associated with biomagnification ()
 A Food chain C. Chemophototrophs
 B Pyramid of classes D. None of the above
- 77 Parasitic ecosystem is an example of ()
 A Inverted ecological pyramid C. Decomposer food chain
 B Upright ecological pyramid D. None of the above
- 78 One of this is not an example of biomass fuel ()
 A Wood C. Charcoal
 B Geothermal heat D. Peat
- 79 The 3R concept is ()
 A Recreate, Remunerate, Rescue C. Reduce, Reuse, Recycle
 B Ride, Right, Respect D. None of the above
- 80 The UNFCCC is associated with ()
 A Rio Earth Summit C. Montreal protocol
 B Johannesburg Summit D. None of the above

48 One of them is an Ozone depleting pollutant (Answer)
 A. CFC C. HCL
 B. HFC B. HNO₃