

Study Circle Career Development Institute

100 Important Points : SSP



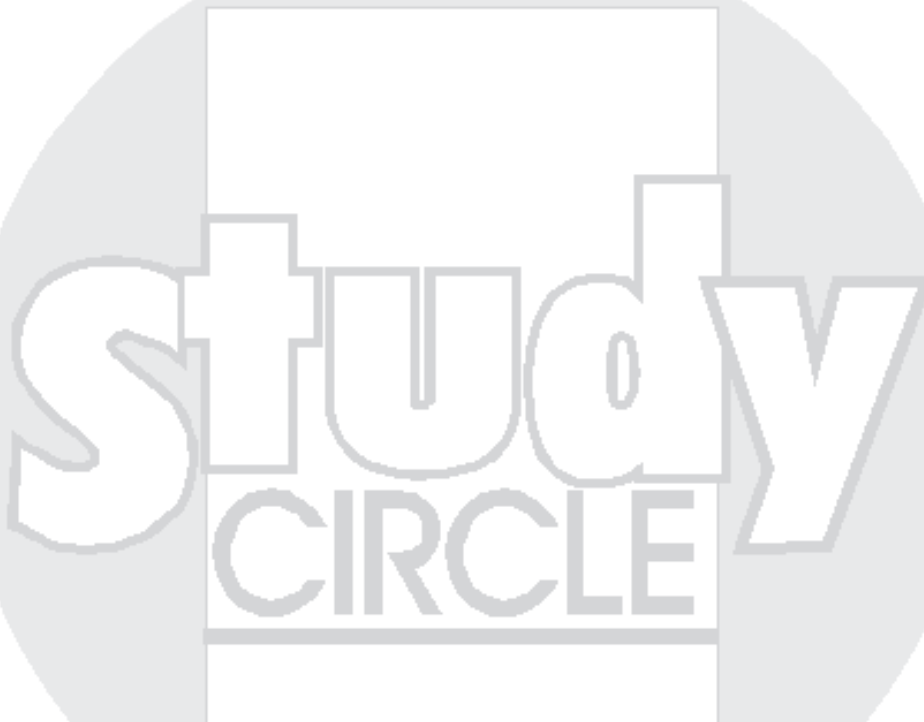
**(66) Pollution - Air, Water, Soil, Sound, Waste Management,
Mitigation Measures**

5) Environmental Ecology, Bio-diversity & Climate Change

- 1) **Environmental Ecology (2)**
- 2) **Bio-diversity (2)**
- 3) **Climate Change (2)**

- 61) Ecosystem - energy pyramid ,Food chain and webs, Material cycle
- 62) Environmental imbalance, conservation, Summits and Mesures, EIA
- 63) Biodiversity - concept, types, wild life and flora of India
- 64) Sanctuaries and National Parks, Tiger Project, Environmental laws
- 65) Global warming - Role of CO₂ and methane in greenhouse effect

- 66) **Pollution - Air, Water, Soil, Sound, Waste management, Mitigation measures**



General Studies Paper I

- 1) **History of India and Indian National Movement (15)**
- 2) **Maharashtra, India and World Geography (15)**
- 3) **Maharashtra and India - Indian Polity and Governance (15)**
- 4) **Economic and Social development (15)**
- 5) **Environmental Ecology, Bio-diversity & Climate Change (10)**
- 6) **General Science (15)**
- 7) **Current Events of State, National and International Importance (15)**

1) History of India and Indian National Movement (15)

- 1) History of Ancient India (4)
- 2) History of Mediavel India (3)
- 3) History of Modern India (4)
- 4) Indian National Movement (4)

2) Maharashtra, India and World Geography (15)

- 1) Physical Geography of World (3)
- 2) Social Geography of World (1)
- 3) Economical Geography of World (1)
- 4) Physical Geography of India (2)
- 5) Social Geography of India (1)
- 6) Economical Geography of India (2)
- 7) Physical Geography of Maharashtra (2)
- 8) Social Geography of Maharashtra (1)
- 9) Economical Geography of Maharashtra (1)

3) Maharashtra and India - Indian Polity and Governance (15)

- 1) Constitution (3)
- 2) Political System (3)
- 3) Panchayati Raj & Urban Governance (3)
- 4) Public Policy (3)
- 5) Humana Rights Issues (3)

4) Economic and Social development (15)

- 1) Sustainable Development (2)
- 2) Poverty (2)
- 3) Inclusion (2)
- 4) Demographics (2)
- 5) Social Sector Initiatives (2)
- 6) Indian Economy - Public Finance (1)
- 7) Extrenal Trade (1)

- 8) Banking, Inflation (1)
- 9) Industry (1)
- 10) Agriculture (1)

5) Environmental Ecology, Bio-diversity & Climate Change (6)

- 1) Environmental Ecology (2)
- 2) Bio-diversity (2)
- 3) Climate Change (2)

6) General Science (19)

- 1) Physics (3)
- 2) Chemistry (3)
- 3) Biology and Zoology (2)
- 4) Botany (2)
- 5) Agriculture Science (2)
- 6) Human Biology and (2)
- 7) Health, Hygeine, Food and Nutrition (3)
- 8) ST development & its applications to Infrastructure development (2)

7) Current Events of State, National and International Importance (15)

- 1) Political events (2)
- 2) Organisations (2)
- 3) Economical events (2)
- 4) S & T events (2)
- 5) Geographical events, Places (2)
- 6) Sociocultural events (1)
- 7) Sports events (1)
- 8) Litearature and Days (1)
- 9) Appointments, Personalities (1)
- 10) Prizes and Honours (1)

State Service Preliminary Examination 2024

Preparation & Guidance : Topics & Subtopics of the Syllabus

100 Important Points Environment : 66

1) With reference to microdeads (micro plastics), consider the following statements:

- a) They are plastic pieces measuring less than 5 mm.
- b) They are found in cosmetics, toothpastes and table salt.
- c) They are detected only in marine micro-organisms.

Answer Option :

- 1) (a) and (b) only 2) (a) and (c) 3) (b) and (c) 4) (a), (b) and (c)

2) Which of the following can be found as pollutants in the drinking water in some parts of India?

- a) Arsenic b) Sorbitol c) Fluoride d) Formaldehyde
- e) Uranium

Answer Option :

- 1) b - c - d - e 2) a - c 3) b - c - a - d - e 4) d - b - c - a

3) Excess intake of Fluoride, a major water pollutants in India, may lead to:

- a) Permanent Joint deformities b) Neurological Problems
- c) Cracked Teeth d) Loss of vision

Answer Option :

- 1) (a) and (b) only 2) (a), (b) and (c) 3) (a), (c) and (d) 4) (a), (b), (c), (d)

4) Given below is a diary of disasters involving hazardous chemicals. Which one of the following is correctly matched ?

- 1) 1959, Minamata/ Niigata, Japan : Leakage at pesticide plant
- 2) 1976, Seveso, Italy : Mercury discharged
- 3) 1984, Bhopal India : Leakage of dioxin
- 4) 1987, Kotka, Finland : Monochlorobenzene split in harbour

5) With reference to acidification of ocean, consider the following statements :

- a) It occurs due to the high absorption of nitrogenous based acidic compounds.
- b) Productivity of corals will increase because of the increase in nitrogenous nutrients.
- c) Introduction of sea grasses can reduce the impact of acidification.

Answer Option :

- 1) (c) only 2) (a) and (c) 3) (b) and (c) 4) (a), (b) and (c)

6) Which of following constitute primary pollutants?

- a) Particulate matter b) Ozone c) Sulphur Dioxide d) Nitrogen di-oxide

Answer Option :

- 1) (a) and (b) only 2) (a), (b) and (c) 3) (a), (c) and (d) 4) (a), (b), (c), (d)

- 7) According to Meadows (1972), if the present trends in world population, industrialization, pollution, food production and resource depletion continue unchanged, the limits to growth on our planet will be reached in the next
1) 50 years 2) 100 years 3) 150 years 4) 200 years
- 8) Consider the following which can be found in the ambient atmosphere;
a) Soot b) Sulphur hexafluoride c) Water vapour
Which of the above contribute to the warming up of the atmosphere?
1) (a) and (b) only 2) (a) and (c) 3) (b) and (c) 4) (a), (b) and (c)
- 9) Consider the following pairs: Diseases Pollutants
a) Mina Mata : Mercury Disease
b) Itai-Itai Disease : Nitrate
c) Blue Baby : Cadmium Syndrome
d) Black Foot : Arsenic Disease
Which of the pairs given above are correctly matched?
1) (a) and (b) only 2) (a), (b) and (c) 3) (a) and (d) 4) (a), (b), (c), (d)
- 10) The water pollution in a river is measured by the dissolved amount of
1) Chlorine 2) Ozone 3) Nitrogen 4) Oxygen
- 11) If water pollution continues at its present rate, it will eventually ?
1) stop the water cycle
2) prevent precipitation
3) make oxygen molecules unavailable to water plants
4) make nitrate unavailable to water plants
- 12) The Government has released a new categorization of industries based on their pollution load. With reference to White Industries, consider the following statements :
a) They are practically non-polluting industries.
b) They do not require Environmental Clearance (EC) and Consent.
c) Wind power and mini hydel power are classified as White Industries.
Answer Option :
1) (a) and (b) only 2) (a) and (c) 3) (b) and (c) 4) (a), (b) and (c)
- 13) With reference to plastic Waste Management Rules, 2016, consider the following statements :
a) It aims to promote the use of plastic waste for road construction
b) It has introduced the concept of extended producer responsibility in handling plastic waste.
c) The provisions of the rules are
Answer Option :
1) (a) and (b) only 2) (a) and (c) 3) (b) and (c) 4) (a), (b) and (c)

- 14) With reference to the rearm pesticide Treadmill consider the following statements :
- It means increasing the doses of pesticides to prevent the resurgence of the earlier controlled pest.
 - It yields counterproductive results as repeated spraying increase the vulnerabilities of the farming communities to debt and poor health
 - It involves targeted spraying on pests so that no other insects which are harmless or beneficial to the crops get killed

Answer Option :

- 1) (a) and (b) only 2) (a) and (c) 3) (b) and (c) 4) (a), (b) and (c)

- 15) Due to improper/indiscriminate disposal of old and used computers or their parts, which of the following are released into the environment as e-waste?

- a) Beryllium b) Cadmium c) Chromium d) Heptachlor e) Mercury
f) Lead g) Plutonium

Answer Option :

- 1) b - c - d - e - a 2) a - b - c - e - f 3) b - c - a - d - e 4) d - b - c - a - e

- 16) As per the Solid Waste Management Rules, 2016 in India, which one of the following statements is correct?

- Waste generator has to segregate waste into five categories.
- The Rules are applicable to riotified urban local bodies, notified towns and all industrial townships only.
- The Rules provide for exact and elaborate criteria for the identification of sites for landfills and waste processing facilities.
- It is mandatory on the part of waste generator that the waste generated in one district cannot be moved to another district.

- 17) In India, 'extended producer responsibility' was introduced as an important feature in which of the following?

- The Bio-medical Waste (Management and Handling) Rules, 1998
- The Recycled plastic (Manufacturing and Usage) Rules, 1999
- The e-Waste (Management and Handling) Rules, 2011
- The Food Safety and Standard Regulations, 2011

- 18) The Government of India has totally banned the export of 'Burnt coal' (Jhana) because it contains recoverable amount of a metal/element used in transistors. Which one of the following is that element?

- 1) Phosphorus 2) Germanium 3) Silicon 4) Tungsten

- 19) **Assertion (A)** : Organochlorin pesticides like DDT, although highly effective in controlling insect pests, have been banned in many Western countries.

Reason (R) : DDT has a tendency to remain stable in the environment for a long period.

- If both 'A' and 'R' are correct and R is the correct explanation of 'A'.
- If both 'A' and 'R' are true but 'R' is not the correct explanation of 'A'.
- If 'A' is true but 'R' is false.
- If 'A' is false but 'R' is true.

20) Which radioactive pollutant has recently drawn the attention of the public, due to its occurrence in the building material ?

- 1) Plutonium 2) Thorium 3) Radon 4) Radium

21) Match the following :

Column I (Waste Disposal Method)

- a) Sanitary landfills
- b) Incineration
- c) Pulverizing
- d) Pyrolysis

Column II (Meaning)

- I) Burning of waste
- II) Deposit the refuse and compost it with bulldozers
- III) Combustion in absence of oxygen
- IV) Spreading the waste on fields

Answer Options :

- | | (a) | (b) | (c) | (d) |
|----|-----|-----|-----|-----|
| 1) | II | I | III | IV |
| 2) | II | I | IV | III |
| 3) | I | II | III | IV |
| 4) | IV | III | II | I |

22) Which of the following are adverse effects of noise pollution?

- a) There is a partial loss of hearing (deafness)
- b) It affects reproductive system
- c) Foetus may develop defects.
- d) It affects human performance in tasks requiring communication skill and thinking.
- e) It causes high Blood Pressure (B.P.)

Answer Option :

- 1) a, b, c, and e 2) a, c, d, and e 3) a, b, d and e 4) a, b, c, d and e

23) With reference to Sulfur dioxide pollution, consider the following statements:

- a) Automobile exhaust is an important source of Sulfur dioxide pollution
- b) High concentration of Sulfur dioxide leads to stiffness of flower buds.
- c) Lichens are used as an indicator of Sulfur dioxide pollution

Answer Option :

- 1) (a) and (b) only 2) (a) and (c) 3) (b) and (c) 4) (a), (b) and (c)

24) The 2004 Tsunami made people, realize that mangroves can serve as a reliable safety hedge against coastal calamities. How do mangroves function as a safety hedge ?

- 1) The mangrove swamps separate human settlements from the sea a wide zone in which people neither live nor venture out
- 2) The mangroves provide both food and medicines which people are in need of after any natural disaster
- 3) The mangrove trees are tall with dense canopies and serve as an excellent shelter during a cyclone or tsunami
- 4) The mangrove trees do not get uprooted by storms and tides because of their extensive roots

- 25) Which one of the following can be used to confirm whether drinking water contains a gamma emitting isotope or not ?
1) Microscope 2) Lead plate 3) Scintillation counter 4) Spectrophotometer
- 26) If National Water Mission is properly and completely implemented, how will it impact the country?
a) Part of the water needs of urban areas will be met through recycling of waste-water.
b) The water requirements of coastal cities with inadequate alternative sources of water will be met by adopting appropriate technologies that allow for the use of ocean water.
c) All the rivers of Himalayan origin will be linked to the rivers of peninsular India.
d) The expenses incurred by farmers for digging bore-wells and for installing motors and pump-sets to draw ground-water will be completely reimbursed by the Government.

Answer Option :

- 1) (a) and (b) only 2) (a) and (c) only 3) (b), (c) and (d) 4) (a), (b), (c), (d)

- 27) In the context of solving pollution problems, what is/are the advantage/advantages of bioremediation technique?
a) It is a technique for cleaning up pollution by enhancing the same biodegradation process that occurs in nature.
b) Any contaminant with heavy metals such as cadmium and lead can be readily and completely treated by bioremediation using microorganisms.
c) Genetic engineering can be used to create microorganisms specifically designed for bioremediation.

Answer Option :

- 1) (a) and (b) only 2) (a) and (c) 3) (b) and (c) 4) (a), (b) and (c)

- 28) Which of the following are non- point sources of pollution in rivers?
a) Surface drains carrying municipal sewage
b) Run- off from agricultural fields
c) Dumping of un-burnt/half-burnt bead boodies
d) Dhobi Ghats
e) Effluents from industries

Answer Option :

- 1) b - c - d - e - a 2) b - c - d 3) b - c - a - d 4) d - b - c - a - e

- 29) Government of India encourages the cultivation of 'sea buckthorn'. What is the importance of this plant?
a) It helps in controlling soil erosion and in preventing desertification.
b) It is a rich source of biodiesel.
c) It has nutritional value and is well-adapted to live in cold areas of high altitudes.
d) Its timber is of great commercial value.

Answer Option :

- 1) (a) and (b) only 2) (a) and (c) only 3) (b), (c) and (d) 4) (a), (b), (c), (d)

- 30) The Ministry of Environment, forest and Climate Change (MoEFCC) has developed the criteria of categorization of industrial sectors based on the "Pollution Index" Pollution Index is a function of:
- a) Emissions
b) Effluents
c) Hazardous wastes generated
d) Consumption of resources

Answer Option :

- 1) (a) and (b) only 2) (a), (b) and (c) 3) (a), (c) and (d) 4) (a), (b), (c), (d)

- 31) Match the following Pollutants and their Mediums as per the UNEP documents :

Pollutant	Medium
a) Nitrogen oxides	I) Sea
b) Petroleum hydrocarbons	II) Food
c) Fluorides	III) Air
d) Mycotoxins	IV) Fresh water

Answer Options :

- | | (a) | (b) | (c) | (d) |
|----|------------|------------|------------|------------|
| 1) | I | II | III | IV |
| 2) | IV | III | II | I |
| 3) | III | I | IV | II |
| 4) | III | I | II | IV |

- 32) Which of the following is the major cause of poor health in Indians?
1) Air pollution 2) Water pollution 3) Noise pollution 4) Soil pollution
- 33) Biological Oxygen Demand (BOD) is a standard criterion for
1) Measuring oxygen levels in blood 2) Computing oxygen levels in forest ecosystems
3) Pollution assay in aquatic ecosystems 4) Assessing oxygen levels in high altitude regions
- 34) Which of the following help in reducing water pollution?
1) Eucalyptus 2) Water Hyacinth 3) Salvina 4) Lotus
- 35) "The final Agent Orange raid in Vietnam took place in 1970; areas have begun to bloom again. But 19 years after the war's end, it seems plain that Agent Orange is killing and maiming human beings, something it never intended to do. The apparent toxic fallout from those clouds... is a crop of human miseries including cancers, miscarriages and birth defects- that may persist for decades." The offensive substance referred to in this quotation is
1) DDT used as an insecticide
2) a complex mixture of herbicides and weedicides used to increase agricultural output in the then South Vietnam under the U.S. aid programme
3) a complex mixture of DDT and other insecticides used as serial sprays for protection against malaria and other tropical diseases
4) dioxin used as defoliants
- 36) Recently, "oilzapper" was in the news. What is it ? "
1) It is an eco-friendly technology for the remediation of oily sludge and oil spills
2) It is the latest technology developed for under-sea oil exploration
3) It is a genetically engineered high biofuel-yielding maize variety
4) It is the latest technology to control the accidentally caused flames from oil wells

- 37) The most common substance responsible for pollution is
1) Smoke 2) Carbon dioxide 3) Sulphur dioxide 4) Carbon monoxide
- 38) If a large number of people are enclosed in a room, then
1) Oxygen decreases and carbon dioxide increases
2) Oxygen increases and carbon dioxide decreases
3) Both oxygen and carbon dioxide decrease
4) Both oxygen and carbon dioxide increase
- 39) In recent years there has been some concern over the threat posed by the Mathura oil refinery and the thermal power plants to the Taj Mahal in Agra. The scientific basis of any possible damage to the Taj is mainly :
1) stratospheric ozone and the chlorofluorocarbons which destroy it
2) acid precipitation and tropospheric ozone
3) increasing levels of atmospheric CO₂ which produce the greenhouse effect
4) ultraviolet radiation (240-260 nanometers wavelength) and fumes from the heavily polluted Yamuna river
- 40) Consider the following pairs: **Diseases : Pollutants**
a) Mina Mata : Mercury Disease b) Itai-Itai Disease : Nitrate
c) Blue Baby : Cadmium Syndrome d) Black Foot : Arsenic Disease
Which of the pairs given above are correctly matched?
1) (a) and (b) only 2) (a) and (d) only 3) (b), (c) and (d) 4) (a), (b), (c), (d)
- 41) Match the following Pollutants and their Mediums as per the UNEP documents :

Pollutant	Medium
a) Nitrogen oxides	I) Sea
b) Petroleum hydrocarbons	II) Food
c) Fluorides	III) Air
d) Mycotoxins	IV) Fresh water

Answer Options :

	(a)	(b)	(c)	(d)
1)	I	II	III	IV
2)	IV	III	II	I
3)	III	I	IV	II
4)	III	I	II	IV
- 42) Which of the following are preventive measures of air pollution ?
a) Using less energy b) Using energy more efficiently
c) Using solar and wind energy d) Planting of pollution tolerant plant species
Answer options :
1) (a) and (b) only 2) (a) and (c) only 3) (b), (c) and (d) 4) (a), (b), (c), (d)
- 43) Which of the following can be found as pollutants in the drinking water in some parts of India?
a) Arsenic b) Sorbitol c) Fluoride d) Formaldehyde e) Uranium
Select the correct answer using the codes given below.
1) b - c - d - e - a 2) a - c 3) b - c - e - d 4) d - b - c

- 44) Which of the following help in reducing water pollution?
1) Eucalyptus 2) Water Hyacinth 3) Salvina 4) Lotus
- 45) Indian cities are classified on the basis of air quality index among Dangerous, Bad, Poor, Fair and Good.
Now state which one of the following two statements is **correct**?
a) There is no city from Maharashtra in the Dangerous class.
b) Tuticorin and Coimbatore fall in good class.

Answer options :

- 1) (a) only 2) (b) only 3) Both (a) and (b) 4) Neither (a) nor (b)
- 46) "Fly-ash", the environmental pollutant, is generated by
1) Oil-refinery 2) Thermal Power plant
3) Seed processing plant 4) Strip mining
- 47) Statement about Eutrophication :
a) The eutrophication occurs in lotic water body primarily in early region.
b) The eutrophication occurs in lentic water and there is gradual accumulation of organisms and their products.
c) The eutrophication promotes fish growth as algal blooms serve as source of food to fishes.
d) The eutrophicated water is oxygen rich and safe for human consumption without treatment.

Answer options :

- 1) (a) and (b) only 2) (a) and (c) 3) (b) and (c) 4) (a), (b) and (c)
- 48) The sequence of steps involved in waste management hierarchy is :
a) Treatment b) Pollution prevention c) Disposal d) Reuse/Recycle
Answer options :
1) b - d - a - c 2) a - b - c - d 3) b - c - a - d 4) d - b - c - a
- 49) The Haryana Pollution Control Board has sealed 12 stone-crushing units in the district due to:
a) Did not have water sprinklers b) Did not have microbial-leaching technique
c) Did not have fabric filters. d) Did not have facility of incineration
Which of the above mentioned statements is/are correct ?

- 1) (a) and (b) only 2) (a) and (c) only 3) (b), (c) and (d) 4) (a), (b), (c), (d)

- 50) Brominated flame retardants used in many household product like mattresses and upholstery. Why is there some concern about their use?
a) They are highly resistant to degradation in the environment.
b) They are able to accumulate human and animals.

Answer options :

- 1) (a) only 2) (b) only 3) Both (a) and (b) 4) Neither (a) nor (b)