

Environmental Science - 2010

M.Sc. Environmental Science

1. It appears that Laplace's nebular hypothesis is just the modified version of :
(a) Chamberlin's hypothesis (b) James Jeans Hypothesis
(c) Russell's hypothesis (d) None of these
2. Which type of soil is ideal for growing cotton ?
(a) Alluvial soil (b) Red soil
(c) Laterite soil (d) Regur soil
3. In which fashion wind moves soil particles having size 0.1-0.5mm ?
(a) Hopping (b) Rolling
(c) Both (a) & (b) (d) None of these
4. Which type of rock is Gneiss ?
(a) Sedimentary (b) Igneous
(c) Metamorphic (d) Any of these
5. Chenab originates from the confluence of river/s :
(a) The Chandra (b) The Bhaga
(c) Both (a) & (b) (d) The Bhaga and the Satluj
6. Specific aspect/s of the environmental change affected by population dynamic is/ are :
(a) Climate change (b) Land use change
(c) Both (a) & (b) (d) None of these
7. In nature Graphite occurs in the form of :
(a) Vein (b) Dissemination
(c) Amorphous (d) All of these
8. In J&K zinc is found at :
(a) Rampur (b) Buniyar
(c) Uri (d) Karnah
9. Which of the following have the potential to generate Tsunami ?
(a) Earthquakes (b) Landslides
(c) Volcanic eruptions (d) All of these

10. Chernobyl accident released how many curies of radioactivity ?
(a) 10-25 million curie (b) 25-50 million curie
(c) 50-100 million curie (d) 100-150 million curie
11. Which layer of atmosphere protects the earth from meteoroids ?
(a) Mesosphere (b) Stratosphere
(c) Troposphere (d) Thermosphere
12. The rocks of the crust fall into which two major categories ?
(a) Mafic and Basalt (b) Granite and Felsic
(c) Sial and Sima (d) None of these
13. Different soil horizons are in :
(a) direct contact with their immediate neighbours
(b) indirect contact with their immediate neighbours
(c) Either (a) or (b)
(d) None of these
14. As per Green indicators 2004, GWI denotes :
(a) Green World Index (b) Green World Indicator
(c) Green Wealth Indicator (d) Green Wealth Index
15. Desertification is :
(a) Developmental problem (b) Environmental problem
(c) Both (a) & (b) (d) None of these
16. Typical Indian climate is represented by :
(a) Tropical zone (b) Sub tropical zone
(c) Arid zone (d) Alpine zone
17. Which one of the following is the incorrect statement ?
(a) Alkalinity refers to buffering
(b) General hardness measures the cations
(c) Carbonate hardness measures the sulphates and other anions
(d) All fresh water sources contain calcium and magnesium

18. Which one is not a trace element ?
(a) Mn (b) Mg
(c) Zn (d) Cu
19. PVC is generally referred as :
(a) Homopolymer (b) Co-polymer
(c) Monomer (d) None of these
20. Tryptophan is involved in the formation of:
(a) Auxin (IAA) in plants (b) Nicotinamide (vitamin B₃) in animals
(c) Both (a) & (b) (d) None of these
21. The reservoir pool of gaseous cycles of matter is :
(a) Lithosphere (b) Atmosphere
(c) Hydrosphere (d) Both (b) & (c)
22. Water cycle is made up of 2 overlapping cycles, which are :
(a) Ground water and atmospheric water cycles
(b) Surface water and atmospheric water cycles
(c) Larger global and smaller local water cycles
(d) Oceanic fresh water cycles
23. Fragile bone may result due to toxicity of:
(a) Cd (b) Pb
(c) Hg (d) None of these
24. Paracetamol can be taken by a person :
(a) Using anti-coagulants (b) Allergic to aspirin
(c) Both (a) & (b) (d) None of these
25. Which of the following compounds had very important role in pre-biotic evolution ?
(a) NO (b) SO₃
(c) SO₂ (d) CH₄
26. In pure state chlorophyll b is :
(a) Bluish green (b) Olive green
(c) Yellowish green (d) Any of these

27. Stress hormone is :
- | | |
|----------------------|-------------------|
| (a) Gibberellic acid | (b) Abscisic acid |
| (c) Auxin | (d) Cytokinin |
28. Which one of the following has no effect on seed dormancy ?
- | | |
|------------------|-------------------|
| (a) Auxins | (b) Cytokinins |
| (c) Gibberellins | (d) Abscisic acid |
29. Maximum energy is liberated on respiratory breakdown of:
- | | |
|--------------|-------------------|
| (a) Proteins | (b) Carbohydrates |
| (c) Fats | (d) Nucleic acids |
30. Which form of DNA occurs under physiological conditions of cells ?
- | | |
|-----------|-----------|
| (a) A-DNA | (b) B-DNA |
| (c) C-DNA | (d) D-DNA |
31. The first genetically engineered human insulin (Humulin) was launched by an American company on :
- | | |
|--------------------------------|-------------------------------|
| (a) 5 th July 1983 | (b) 5 th July 1993 |
| (c) 15 th June 1985 | (d) None of these |
32. Which of following statements is incorrect ?
- The first order consumers in the fresh water pond include larva of may-fly and dragon-fly
 - Floating populations of plankton are present in high reaches of perennial rivers
 - Eutrophic lakes are relatively shallow lakes
 - Smabar lake of Rajasthan contains saline or brackish water
33. Which of the groups represent rooted submerged stage of hydrosere ?
- Typha, Fragmites and Sagittaria*
 - Carex, Juncus and Eleocharis*
 - Hydrilla, Elodea and Utricularia*
 - Lemna, Azolla and Wolffia*
34. Important edible fresh water fishes of India are :
- | | |
|----------------------------------|------------------------------|
| (a) <i>Hilsa, Salmon, Eel</i> | (b) <i>Sardine, Pomphret</i> |
| (c) <i>Labeo, Calbasu, Catla</i> | (d) <i>All of these</i> |

35. The burn in pine seedling is caused by pollutant :
- (a) SO₂ (b) PAN
(c) NO (d) None of these
36. Presence of diatoms in water is an indication of :
- (a) Pollution by sewage (b) Adequate oxygen in water
(c) Petroleum deposits (d) All of these
37. A lake which has no significant outflow, either through rivers or underground diffusion is called ?
- (a) Meromictic lake (b) Crater lake
(c) Oxbow lake (d) Endorheic lake
38. Filtration over activated carbon removes :
- (a) Residual suspended matter (b) Residual toxins
(c) Biofilms (d) All of these
39. Bioindicator of soil pesticide is :
- (a) Actinomycetes (b) Yeasts
(c) Cyanobacteria (d) Filamentous fungi
40. In India, on an average, what percentage of municipal solid waste generated can be recycled ?
- (a) 5-10 % (b) 20-25%
(c) 30-35% (d) 40-50%
41. World Forest Day is celebrated on :
- (a) March 21 (b) April 22
(c) May 17 (d) October 2
42. Which of the following water-borne disease usually provides protection against a second attack ?
- (a) Infectious Hepatitis (A) (b) Cholera
(c) Amoebiasis (d) None of these
43. Parathion is a/an :
- (a) Organochlorine (b) Organophosphate
(c) Carbamate (d) None of these

44. Noise affects :
- (a) Eye sight, colour perception, night vision
 - (b) Heart rate, blood pressure, work performance
 - (c) Hearing, sleep, conversation
 - (d) All of these
45. Which one is not a grade of coal ?
- (a) Racid
 - (b) Anthracite
 - (c) Bituminous
 - (d) Lignite
46. Hand made papers :
- (a) Reduce pollution
 - (b) Help in saving trees
 - (c) Provide solution of unemployment
 - (d) All of these
47. Dachigam has been declared as National Park in the year :
- (a) 1981
 - (b) 1983
 - (c) 1985
 - (d) 1986
48. Which one of the following groups is not listed as endangered or rare plant species in Red Data Book ?
- (a) *Abies delavayi*, *Acanthephippium*, *Aconitum*
 - (b) *Adinandra*, *Aglaia*, *Amblyanthus*, *Vanda*
 - (c) *Populus*, *Potameia*, *Psilotum*, *Rheum*
 - (d) *Hordeum vulgare*, *Secale cereal*, *Sorghum vulgare*, *Eleucine coracana*
49. In order to control malaria, offensive measures can be taken against :
- (a) Malaria
 - (b) Malarial parasites
 - (c) Both (a) & (b)
 - (d) None of these
50. Which of the following is not included in IUCN Red list category ?
- (a) Least concern
 - (b) Extinct in the wild
 - (c) Lower risk
 - (d) High concern
51. The Oriental and Australian regions are separated from each other by an imaginary line called :
- (a) Lombok's line
 - (b) Bali's line
 - (c) Wallace's line
 - (d) None of these

52. Inside the root nodule the Rhizobia change their form to cells called :
- (a) Rhizomoids
 - (b) Rhizoides
 - (c) Bacteroids
 - (d) Bacteriomoids
53. Ozone hole was first discovered by :
- (a) J E Farman
 - (b) I E Fosterman
 - (c) T J Rogerman
 - (d) None of these
54. Smog arises by the interaction of :
- (a) Hydrocarbons and sulphur dioxide
 - (b) Hydrocarbons and nitrogen oxide
 - (c) Sulphur dioxide and nitrogen oxide
 - (d) All of these
55. Which one was not among the basic conspicuous issues discussed during Earth Summit ?
- (a) Greenhouse gas emission
 - (b) Forests
 - (c) Population
 - (d) NGOs
56. Internationally, environmental education gained recognition when the UN conference was held in 1972 at ?
- (a) Sweden
 - (b) Turkey
 - (c) Brazil
 - (d) Iran
57. Which one of the following statements is incorrect ?
- (a) The value of median is influenced by abnormally large or small values
 - (b) The arithmetic mean does not get affected by the fluctuations of the sampling
 - (c) Arithmetic explanation of median is not possible
 - (d) Mode is rarely used for medical and higher biological scientific calculations
58. Mean values of Hb% of 20 males and 20 females were calculated as 13.5 and 14 mg/100ml with SD as 3 and 4 respectively. The co-efficient of variation of both males and females will be :
- (a) Males 20.20% & females 25.50%
 - (b) Males 22.22% & females 28.57%
 - (c) Males 24.50% & females 30.57%
 - (d) Males 28.27 % & females 34.20%

59. The reason of relationship between two variables is clearly indicated in :
- (a) Correlation analysis
 - (b) Regression analysis
 - (c) Both (a) & (b)
 - (d) None of these
60. A bag contains 3 red, 6 white and 7 blue balls. What is the probability that two balls drawn are white and blue ?
- (a) $16/3$
 - (b) $7/20$
 - (c) $3/21$
 - (d) $3/16$