



Previous Year Question Paper  
of

**SET MH (MAHARASHTRA)**  
**ENVIRONMENTAL SCIENCES**  
**Question Paper – II**

**State Eligibility Test**

**2013, February**

*(Original Question Paper with Answer Key)*

State Eligibility Test



*For more question papers, please visit: [www.easybiologyclass.com](http://www.easybiologyclass.com)*

FEB-31213/II

## Environmental Science

### Paper II

**Time Allowed : 75 Minutes]**

**[Maximum Marks : 100**

**Note :** This Paper contains Fifty (50) multiple choice questions. Each question carries Two (2) marks. Attempt *All* questions.

---

1. Mixing ratio is a measure of :

- (A) Relative humidity
- (B) Precipitation
- (C) Wind speed
- (D) Radiations

2. The characteristic length of pressure variations in vertical directions in atmosphere is approximately :

- (A) 2 km
- (B) 5 km
- (C) 7 km
- (D) 8 km

3. Thunderstorms in weather systems are considered as phenomena occurring at :

- (A) micro scale
- (B) meso scale
- (C) synoptic scale
- (D) global scale

4. The speed of geostrophic wind for an air parcel of known density at a place depends on :

- (A) latitude only
- (B) latitude and pressure gradient
- (C) pressure gradient only
- (D) longitude and latitude

---

[P.T.O.]

FEB-31213/II

5. Hardness is commonly measured in terms of :
- (A)  $\text{MgSO}_4$  equivalents
  - (B)  $\text{MgCO}_3$  equivalents
  - (C)  $\text{CaSO}_4$  equivalents
  - (D)  $\text{CaCO}_3$  equivalents
6. In high performance liquid chromatography the most commonly used detector is :
- (A) Fluorescence detector
  - (B) Refractive index detector
  - (C) UV absorption detector
  - (D) Flame ionisation detector
7. Redox potential is measured in units of :
- (A) Watts
  - (B) Calories
  - (C) Millivolts
  - (D) Coulomb/meter
8. Pesticides can be estimated using :
- (A) Gel electrophoresis
  - (B) GC
  - (C) Flame photometry
  - (D) AAS
9.  $\text{NO}_x$  is a mixture of :
- (A)  $\text{NO}_2$  and  $\text{N}_2\text{O}_5$
  - (B)  $\text{NO}$  and  $\text{N}_2\text{O}_5$
  - (C)  $\text{NO}$  and  $\text{NO}_2$
  - (D)  $\text{NO}$ ,  $\text{NO}_2$ ,  $\text{N}_2\text{O}_5$
10. Upto what dissolved oxygen levels most fishes can live in water ?
- (A) 1 ppm
  - (B) 2 ppm
  - (C) 3 ppm
  - (D) 6 ppm

FEB-31213/II

11. Which of the following ecosystems has upright ecological pyramid of biomass ?
- (A) Desert
  - (B) Pond
  - (C) Forest
  - (D) Soil
12. Which of the following represents pioneer colonizer of soil ?
- (A) Algae
  - (B) Lichens
  - (C) Fungi
  - (D) Protozoa
13. Inefficiency in transfer of energy in an ecosystem is represented by :
- (A) Energy pyramid
  - (B) Population pyramid
  - (C) Food web
  - (D) Succession
14. Which of the following techniques is used to monitor air microflora ?
- (A) Spread plate technique
  - (B) Pour plate technique
  - (C) Direct microscopic technique
  - (D) Agar impacting technique
15. Which of the following is a beneficial interaction ?
- (A) Antagonism
  - (B) Parasitism
  - (C) Competition
  - (D) Mutualism
16. Run-off in a catchment is likely to increase due to :
- (A) Deforestation
  - (B) Afforestation
  - (C) Reforestation
  - (D) Eco restoration

FEB-31213/II

17. Western disturbances generally occur frequently during ..... months in India.
- (A) November — April
  - (B) June — September
  - (C) April — June
  - (D) June — July
18. In remote sensing studies, the surface roughness or smoothness is decided by the criterion given by :
- (A) Planck
  - (B) Peak and Olives
  - (C) Bohr
  - (D) Raman
19. The radiometric resolution in case of LANDSAT/TM is :
- (A) 1/64
  - (B) 1/128
  - (C) 1/256
  - (D) 1/512
20. Atmospheric window is around :
- (A) 3  $\mu\text{m}$  – 5  $\mu\text{m}$
  - (B) 2  $\mu\text{m}$  – 7  $\mu\text{m}$
  - (C) 8  $\mu\text{m}$  – 11  $\mu\text{m}$
  - (D) 20  $\mu\text{m}$  – 25  $\mu\text{m}$
21. The energy in sun is produced as a result of :
- (A) nuclear fission
  - (B) nuclear fusion
  - (C) thermal convection
  - (D) chemical reaction
22. The country making maximum percentage use of nuclear energy is :
- (A) France
  - (B) Japan
  - (C) Brazil
  - (D) USA

FEB-31213/II

23. The average solar insolation at the surface of earth is about :
- (A) 0.2 cal/inch<sup>2</sup>/minute  
(B) 350 w/m<sup>2</sup>  
(C) 750 w/m<sup>2</sup>  
(D) 120 w/m<sup>2</sup>
24. Solar energy is *not* very popular as compared to conventional energy options because it :
- (A) is less affordable and less efficient  
(B) creates thermal pollution  
(C) is less socially acceptable  
(D) is less accessible
25. For an ideal MHD power plant, the power output varies with the conductivity ( $\sigma$ ) of the working fuel as proportional to :
- (A)  $\sigma$   
(B)  $\sigma^3$   
(C)  $\sigma^{3/2}$   
(D)  $\sigma$
26. Each of two identical sources produce 80 dB of noise at a given location. What is the resultant noise level ?
- (A) 160 dB  
(B) 120 dB  
(C) 83 dB  
(D) 86 dB
27. Bioaugmentation means :
- (A) stimulation of non-specific organisms  
(B) stimulation of specific organisms  
(C) inoculation of specific microbial consortium  
(D) Inoculation of non-specific microbial consortium
28. Which of the following represents anoxygenic photo autotroph ?
- (A) Chromatium  
(B) Nostoc  
(C) Chlamydomonas  
(D) Anabaena

**FEB-31213/II**

29. Which of the following is a gaseous fuel ?
- (A) Ethanol
  - (B) Butanol
  - (C) Methane
  - (D) Methanol
30. In order to correctly assess the health impact due to aerosols, one has to measure :
- (A) SPM concentration
  - (B) PM<sub>2.5</sub> concentration
  - (C) structure of aerosols
  - (D) density of aerosols
31. "It shall be the duty of every citizen of India to protect and improve the natural environment" is mentioned in the following article of Indian Constitution :
- (A) 48 A
  - (B) 21
  - (C) 51 A
  - (D) 42
32. Environmental Audit is conducted on :
- (A) Regular basis
  - (B) Periodical basis
  - (C) Annual basis
  - (D) Biomonthly basis
33. The radius for collection of data on environmental aspects for EIA of a proposed project site is :
- (A) 10 km
  - (B) 50 km
  - (C) 1 km
  - (D) 100 km
34. The environmental impacts of policy, plan or program are evaluated by :
- (A) Social impact assessment
  - (B) Draft environmental impact assessment
  - (C) Comprehensive environmental impact assessment
  - (D) Strategic environmental impact assessment

**FEB-31213/II**

35. Title II of National Environmental Policy Act (NEPA) establishes :
- (A) Council on Environmental Quality (CEQ)
  - (B) National goal on Environmental Policy
  - (C) Protection of natural resources
  - (D) EIA and EIS
36. Separation of solids in waste by sedimentation is based on :
- (A) Volume
  - (B) Mass
  - (C) Size
  - (D) Morphology
37. Agriculture residues are rich in :
- (A) Proteins
  - (B) Lipids
  - (C) Cellulose
  - (D) Fatty acids
38. Compost is used as soil conditioner because :
- (A) it decreases pH of soil
  - (B) it increases nitrogen content
  - (C) it depletes oxygen of soil
  - (D) it increases water retention capacity of soil
39. Biomedical waste is hazardous due to the presence of :
- (A) Cellulosic matter
  - (B) Waste food
  - (C) Pathogens
  - (D) Fruit waste
40. Kyoto Protocol would expire in the year :
- (A) 2011
  - (B) 2012
  - (C) 2014
  - (D) 2015



**FEB-31213/II**

41. In terms Z-statistics the mean and standard deviation of normal distribution are ..... .
- (A)
  - (B)
  - (C)
  - (D)
42. The level of significance in multiple regression models is usually taken as :
- (A) 5%
  - (B) 20%
  - (C) 2%
  - (D) 10%
43. Which of the following represents sample statistics ?
- (A)  $\mu$
  - (B)
  - (C)
  - (D)  $\sigma^2$
44. If the data regarding occurrence of a particular disease in different zones around a factory are tabulated in a contingency table, what is the suitable technique to establish relationship between occurrence of that disease and location with respect to factory :
- (A) *t*-test
  - (B) Correlation
  - (C) Chi-square test
  - (D) F-test
45. The null hypothesis pertaining to all the regression coefficients simultaneously is tested using ..... .
- (A) Z-statistics
  - (B) F-statistics
  - (C) Chi-square statistics
  - (D) *t*-statistics

**FEB-31213/II**

46. Eutrophication represents :
- (A) Algal blooms
  - (B) Metals in water
  - (C) Fungal growth
  - (D) Bacterial growth
47. In our country nearly .....% of water is used in the agricultural sector much of which is very wasteful.
- (A) 70
  - (B) 60
  - (C) 85
  - (D) 95
48. The Montreal Protocol signed in 1987 deals with the control of :
- (A) Trading in rare species
  - (B) Ozone depleting substances
  - (C) Emission from industries
  - (D) Land degradation
49. The present installed capacity of electricity in our country is about ..... of the global energy generation.
- (A) 10%
  - (B) 20%
  - (C) 15%
  - (D) 3%
50. The convention for protection and conservation of wetlands is :
- (A) Montreal Protocol
  - (B) Ramsar Convention
  - (C) Kites Convention
  - (D) Convention on Biodiversity

Please visit: [www.easybiologyclass.com](http://www.easybiologyclass.com) for:

- Lecture Notes
- Biology PPTs
- Biology MCQs
- Online Mock Tests (MCQ)
- Video Tutorials
- Practical Aids
- Model Question Papers of NET, GATE, DBT, ICMR Exams
- CSIR NET Life Sciences Previous Year Question Papers
- GATE Previous Year Question Papers
- DBT BET JRF Previous Year Question Papers
- ICMR JRF Entrance Exam Resources
- Jobs Notifications
- Higher Studies in Biology / Life Sciences
- Seminar / Workshop/ Conference Notifications
- *And many more....*



Please subscribe our **youtube** channel: **easybiologyclass**  
<https://www.youtube.com/user/easybiologyclass/videos>



You can access more PDFs & PPTs from our **Slideshare** account  
<http://www.slideshare.net/EasyBiologyClassEBC/>



Our sister concern: [www.angiospermtaxonomy.com](http://www.angiospermtaxonomy.com)