

Test Paper : II	Test Booklet Serial No. : _____								
Test Subject : ENVIRONMENTAL SCIENCE	OMR Sheet No. : _____								
Test Subject Code : <b>K-2914</b>	Roll No. <table border="1" style="display: inline-table; vertical-align: middle;"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table> (Figures as per admission card)								

<b>Name &amp; Signature of Invigilator/s</b>	
Signature: _____	Signature: _____
Name : _____	Name : _____
<b>Paper : II</b>	
<b>Subject : ENVIRONMENTAL SCIENCE</b>	
Time : 1 Hour 15 Minutes	Maximum Marks : 100

Number of Pages in this Booklet : 8 Number of Questions in this Booklet : 50

<p style="text-align: center;"><b>ಅಭ್ಯರ್ಥಿಗಳಿಗೆ ಸೂಚನೆಗಳು</b></p> <ol style="list-style-type: none"> <li>ಈ ಪುಟದ ಮೇಲ್ಭಾಗದಲ್ಲಿ ಒದಗಿಸಿದ ಸ್ಥಳದಲ್ಲಿ ನಿಮ್ಮ ರೋಲ್ ನಂಬರನ್ನು ಬರೆಯಿರಿ.</li> <li>ಈ ಪತ್ರಿಕೆಯು ಬಹು ಆಯ್ಕೆ ವಿಧದ ಐವತ್ತು ಪ್ರಶ್ನೆಗಳನ್ನು ಒಳಗೊಂಡಿದೆ.</li> <li>ಪರೀಕ್ಷೆಯ ಪ್ರಾರಂಭದಲ್ಲಿ ಪ್ರಶ್ನೆಪುಸ್ತಕವನ್ನು ನಿಮಗನಿಡಲಾಗುವುದು. ಮೊದಲ 5 ನಿಮಿಷಗಳಲ್ಲಿ ನೀವು ಪುಸ್ತಕವನ್ನು ತೆರೆಯಲು ಮತ್ತು ಕೆಳಗಿನಂತೆ ಕಡ್ಡಾಯವಾಗಿ ಪರೀಕ್ಷಿಸಲು ಕೋರಲಾಗಿದೆ.             <ol style="list-style-type: none"> <li>ಪ್ರಶ್ನೆಪುಸ್ತಕಕ್ಕೆ ಪ್ರವೇಶಾವಕಾಶ ಪಡೆಯಲು, ಈ ಹೊಂದಿಕೆ ಪುಟದ ಅಂಚಿನ ಮೇಲಿರುವ ಪೇಪರ್ ಸೀಲನ್ನು ಹರಿಯಿರಿ. ಸ್ಕ್ರೇಪ್ ಸೀಲ್ ಇಲ್ಲದ ಪ್ರಶ್ನೆಪುಸ್ತಕ ಸ್ವೀಕರಿಸಬೇಡಿ. ತೆರೆದ ಪುಸ್ತಕವನ್ನು ಸ್ವೀಕರಿಸಬೇಡಿ.</li> <li>ಪುಸ್ತಕಿಯಲ್ಲಿನ ಪ್ರಶ್ನೆಗಳ ಸಂಖ್ಯೆ ಮತ್ತು ಪುಟಗಳ ಸಂಖ್ಯೆಯನ್ನು ಮುಖಪುಟದ ಮೇಲೆ ಮುದ್ರಿಸಿದ ಮಾಹಿತಿಯೊಂದಿಗೆ ತಾಳಿ ನೋಡಿ. ಪುಟಗಳು/ಪ್ರಶ್ನೆಗಳು ಕಾಣೆಯಾದ, ಅಥವಾ ದ್ವಿಪ್ರತಿ ಅಥವಾ ಅನುಕ್ರಮವಾಗಿಲ್ಲದ ಅಥವಾ ಇತರ ಯಾವುದೇ ವ್ಯತ್ಯಾಸದ ದೋಷಪೂರಿತ ಪುಸ್ತಕವನ್ನು ಕೂಡಲೆ 5 ನಿಮಿಷದ ಅವಧಿ ಒಳಗೆ, ಸಂವೀಕ್ಷಕರಿಂದ ಸರಿ ಇರುವ ಪುಸ್ತಕಕ್ಕೆ ಬದಲಾಯಿಸಿಕೊಳ್ಳಬೇಕು. ಆ ಬಳಿಕ ಪ್ರಶ್ನೆ ಪತ್ರಿಕೆಯನ್ನು ಬದಲಾಯಿಸಲಾಗುವುದಿಲ್ಲ, ಯಾವುದೇ ಹೆಚ್ಚು ಸಮಯವನ್ನೂ ಕೊಡಲಾಗುವುದಿಲ್ಲ.</li> </ol> </li> <li>ಪ್ರತಿಯೊಂದು ಪ್ರಶ್ನೆಗೂ (A), (B), (C) ಮತ್ತು (D) ಎಂದು ಗುರುತಿಸಿದ ನಾಲ್ಕು ಪರ್ಯಾಯ ಉತ್ತರಗಳಿವೆ. ನೀವು ಪ್ರಶ್ನೆಯ ಎದುರು ಸರಿಯಾದ ಉತ್ತರದ ಮೇಲೆ, ಕೆಳಗೆ ಕಾಣಿಸಿದಂತೆ ಅಂಡಾಕೃತಿಯನ್ನು ಕವಾಗಿಸಬೇಕು. ಉದಾಹರಣೆ: <table style="display: inline-table; vertical-align: middle;"> <tr> <td style="border: 1px solid black; border-radius: 50%; width: 15px; height: 15px; text-align: center;">A</td> <td style="border: 1px solid black; border-radius: 50%; width: 15px; height: 15px; text-align: center;">B</td> <td style="border: 1px solid black; border-radius: 50%; width: 15px; height: 15px; background-color: black; text-align: center;">C</td> <td style="border: 1px solid black; border-radius: 50%; width: 15px; height: 15px; text-align: center;">D</td> </tr> </table> (C) ಸರಿಯಾದ ಉತ್ತರವಾಗಿದ್ದಾಗ.</li> <li>ಪ್ರಶ್ನೆ ಪತ್ರಿಕೆ I ರಲ್ಲಿ ಕೊಟ್ಟಿರುವ OMR ಉತ್ತರ ಹಾಳೆಯಲ್ಲಿ, ಪ್ರಶ್ನೆ ಪತ್ರಿಕೆ I ಮತ್ತು ಪ್ರಶ್ನೆ ಪತ್ರಿಕೆ II ರಲ್ಲಿ ಇರುವ ಪ್ರಶ್ನೆಗಳಿಗೆ ನಿಮ್ಮ ಉತ್ತರಗಳನ್ನು ಸೂಚಿಸತಕ್ಕದ್ದು. OMR ಉತ್ತರ ಹಾಳೆಯಲ್ಲಿ ಅಂಡಾಕೃತಿಯಲ್ಲದ ಬೇರೆ ಯಾವುದೇ ಸ್ಥಳದಲ್ಲಿ ಉತ್ತರವನ್ನು ಗುರುತಿಸಿದರೆ, ಅದರ ಮಾಲ್ಯಮಾಪನ ಮಾಡಲಾಗುವುದಿಲ್ಲ.</li> <li>OMR ಉತ್ತರ ಹಾಳೆಯಲ್ಲಿ ಕೊಟ್ಟ ಸೂಚನೆಗಳನ್ನು ಜಾಗರೂಕತೆಯಿಂದ ಓದಿರಿ.</li> <li>ಎಲ್ಲಾ ಕೆಲಸವನ್ನು ಪುಸ್ತಕಿಯ ಕೊನೆಯಲ್ಲಿ ಮಾಡತಕ್ಕದ್ದು.</li> <li>ನಿಮ್ಮ ಗುರುತನ್ನು ಬಹಿರಂಗಪಡಿಸಬಹುದಾದ ನಿಮ್ಮ ಹೆಸರು ಅಥವಾ ಯಾವುದೇ ಚಿಹ್ನೆಯನ್ನು ಸಂಗತವಾದ ಸ್ಥಳ ಹೊರತು ಪಡಿಸಿ, OMR ಉತ್ತರ ಹಾಳೆಯ ಯಾವುದೇ ಭಾಗದಲ್ಲಿ ಬರೆದರೆ, ನೀವು ಅನರ್ಹತೆಗೆ ಬಾಧ್ಯರಾಗಿರುತ್ತೀರಿ.</li> <li>ಪರೀಕ್ಷೆಯು ಮುಗಿದನಂತರ, ಕಡ್ಡಾಯವಾಗಿ OMR ಉತ್ತರ ಹಾಳೆಯನ್ನು ಸಂವೀಕ್ಷಕರಿಗೆ ನೀವು ಹಿಂತಿರುಗಿಸಬೇಕು ಮತ್ತು ಪರೀಕ್ಷಾ ಕೊಠಡಿಯ ಹೊರಗೆ OMR ನ್ನು ನಿಮ್ಮೊಂದಿಗೆ ಕೊಂಡೊಯ್ಯ ಕೂಡದು.</li> <li>ಪರೀಕ್ಷೆಯ ನಂತರ, ಪರೀಕ್ಷಾ ಪ್ರಶ್ನೆ ಪತ್ರಿಕೆಯನ್ನು ಮತ್ತು ನಕಲು OMR ಉತ್ತರ ಹಾಳೆಯನ್ನು ನಿಮ್ಮೊಂದಿಗೆ ತೆಗೆದುಕೊಂಡು ಹೋಗಬಹುದು.</li> <li>ನೀಲಿ/ಕಪ್ಪು ಬಾಲ್ ಪಾಯಿಂಟ್ ಪೆನ್ ಮಾತ್ರವೇ ಉಪಯೋಗಿಸಿರಿ.</li> <li>ಕ್ಯಾಲ್ಕುಲೇಟರ್ ಅಥವಾ ಲಾಗ್ ಟೇಬಲ್ ಇತ್ಯಾದಿಯ ಉಪಯೋಗವನ್ನು ನಿಷೇಧಿಸಲಾಗಿದೆ.</li> <li>ಸರಿ ಅಲ್ಲದ ಉತ್ತರಗಳಿಗೆ ಋಣ ಅಂಕ ಇರುವುದಿಲ್ಲ.</li> </ol>	A	B	C	D	<p style="text-align: center;"><b>Instructions for the Candidates</b></p> <ol style="list-style-type: none"> <li>Write your roll number in the space provided on the top of this page.</li> <li>This paper consists of fifty multiple-choice type of questions.</li> <li>At the commencement of examination, the question booklet will be given to you. In the first 5 minutes, you are requested to open the booklet and compulsorily examine it as below :             <ol style="list-style-type: none"> <li>To have access to the Question Booklet, tear off the paper seal on the edge of this cover page. Do not accept a booklet without sticker-seal and do not accept an open booklet.</li> <li><b>Tally the number of pages and number of questions in the booklet with the information printed on the cover page. Faulty booklets due to pages/questions missing or duplicate or not in serial order or any other discrepancy should be got replaced immediately by a correct booklet from the invigilator within the period of 5 minutes. Afterwards, neither the Question Booklet will be replaced nor any extra time will be given.</b></li> </ol> </li> <li>Each item has four alternative responses marked (A), (B), (C) and (D). You have to darken the oval as indicated below on the correct response against each item. <b>Example :</b> <table style="display: inline-table; vertical-align: middle;"> <tr> <td style="border: 1px solid black; border-radius: 50%; width: 15px; height: 15px; text-align: center;">A</td> <td style="border: 1px solid black; border-radius: 50%; width: 15px; height: 15px; text-align: center;">B</td> <td style="border: 1px solid black; border-radius: 50%; width: 15px; height: 15px; background-color: black; text-align: center;">C</td> <td style="border: 1px solid black; border-radius: 50%; width: 15px; height: 15px; text-align: center;">D</td> </tr> </table> where (C) is the correct response.</li> <li>Your responses to the questions are to be indicated in the <b>OMR Sheet kept inside the Paper I Booklet only</b>. If you mark at any place other than in the ovals in the Answer Sheet, it will not be evaluated.</li> <li>Read the instructions given in OMR carefully.</li> <li>Rough Work is to be done in the end of this booklet.</li> <li>If you write your name or put any mark on any part of the OMR Answer Sheet, except for the space allotted for the relevant entries, which may disclose your identity, you will render yourself liable to disqualification.</li> <li>You have to return the test OMR Answer Sheet to the invigilators at the end of the examination compulsorily and must NOT carry it with you outside the Examination Hall.</li> <li>You can take away question booklet and carbon copy of OMR Answer Sheet soon after the examination.</li> <li><b>Use only Blue/Black Ball point pen.</b></li> <li><b>Use of any calculator or log table etc., is prohibited.</b></li> <li><b>There is no negative marks for incorrect answers.</b></li> </ol>	A	B	C	D
A	B	C	D						
A	B	C	D						



**ENVIRONMENTAL SCIENCE**  
**Paper – II**

**Note :** This paper contains **fifty (50)** objective type questions. **Each** question carries **two (2)** marks. **All** questions are **compulsory**.

1. Which of the ozone depleting agent being used in fire extinguishers ?
  - (A) Nitrogen oxide
  - (B) Halon
  - (C) Chlorofluoro Carbon
  - (D) Methyl bromide
2. Who classified responses to change in the environmental complex into five types : Masking, Lethal, Directive controlling and Deficient ?
  - (A) Kendeigh 1969
  - (B) Blackman (1905)
  - (C) Precht (1958)
  - (D) John 1960
3. Which industry workers suffer from Byssinosis ?
  - (A) Cardboard
  - (B) Coal miners
  - (C) Textile
  - (D) Paper
4. Which of the following substance is not a derivative of petroleum ?
  - (A) Asphalt                      (B) DDT
  - (C) Cellulose                    (D) Polystyrene
5. In automobile exhaust, lead is emitted mostly as
  - (A) Tetra alkyl lead
  - (B) Metallic lead
  - (C) Lead sulphide
  - (D) Lead bromochloride
6. Life has originated on the earth about
  - (A) 1.5 billion years ago
  - (B) 3.5 billion years ago
  - (C) 2.5 billion years ago
  - (D) 4.5 billion years ago
7. A area which is actively defended by an animal from an intruder of the same species is its
  - (A) Niche
  - (B) Home range
  - (C) Territory
  - (D) Habitate
8. Term “nuclear winter” is associated with
  - (A) Nuclear war
  - (B) Nuclear disarmament
  - (C) Nuclear weapon testing
  - (D) Aftermath of a nuclear holocaust



9. Fast pyrolysis is done to obtain
- (A) Bio oil from lignocellulose
  - (B) To dispose off the waste
  - (C) To combat the pollutions
  - (D) B) and C)
10. The Bulk silicate earth represents the
- (A) Solid earth + Atmosphere
  - (B) Solid earth – Metallic core
  - (C) Crust, mantle and the core
  - (D) Crust, mantle, core and upper atmosphere
11. The range of environmental condition which a taxon can tolerate is called
- (A) Biotic range
  - (B) Ecological tolerance
  - (C) Ecological amplitudes
  - (D) Tolerance limit
12. A population with equal number of birth and death in the growth curve will show
- (A) Acceleration phase of growth
  - (B) Plateau phase
  - (C) Exponential growth phase
  - (D) Initial phase of growth
13. Radioactive element found in bones is
- (A) Cesium – 137
  - (B) Strontium – 90
  - (C) Plutonium
  - (D) Uranium
14. Dobson unit is a major concentration of
- (A) PAN
  - (B) CFC
  - (C) Ozone
  - (D) PAH
15. The mineral which is most susceptible to weathering is
- (A) Quartz
  - (B) Olivine
  - (C) K-Feldspar
  - (D) Garnet
16. Who gave the concept of fundamental and realised niches ?
- (A) Hutchinson 1965
  - (B) A. G. Tansley
  - (C) E. P. Odum 1945
  - (D) Hoskin (195)
17. ODP is
- (A) Ozone Deficiency Potential
  - (B) Ozone Differentiating Potential
  - (C) Ozone Detection Potential
  - (D) Ozone Depleting Potential
18. Graphical representation of transfer of food from producers to consumers is
- (A) Biological pyramid
  - (B) Trophic level
  - (C) Ecological efficiency
  - (D) Food web



19. The highest penetrating power is found in
- (A) X-rays
  - (B) Ultraviolet rays
  - (C) Gamma rays
  - (D) Infra red rays
20. Map projection that retains certain accurate directions
- (A) Azimuthal
  - (B) Conformal
  - (C) Equidistant
  - (D) Neutral
21. Ganga Action Plan was launched in
- (A) 1988
  - (B) 1992
  - (C) 1985
  - (D) 1981
22. Ecologically sensitive and important areas breeding and spawning grounds of marine life etc. are categorised in coastal regulation zone as
- (A) CRZ – IV
  - (B) CRZ – II
  - (C) CRZ – III
  - (D) CRZ – I
23. Following organisms makes significant contributions of nitrogen fixation in paddy fields in India.
- (A) Algae
  - (B) Azotobacter
  - (C) Fungi
  - (D) Bacteria
24. Match the following :
- |                         |                            |
|-------------------------|----------------------------|
| a) Kazi ranga sanctuary | 1) Rhinoceroses            |
| b) Manasa Sanctuary     | 2) Tigers                  |
| c) Kanha National Park  | 3) Wildbuffaloes           |
| d) Jalad para sanctuary | 4) One horned Rhinoceroses |
- (A) a - 3 b - 2 c - 3 d - 4  
(B) a - 4 b - 3 c - 2 d - 1  
(C) a - 1 b - 2 c - 3 d - 4  
(D) a - 2 b - 1 c - 4 d - 3
25. Shannon-Weaver index is used to indicate
- (A) Species Diversity
  - (B) Air Pollution Level
  - (C) Water Pollution
  - (D) Species Richness
26. The standard deviation of binomial distribution is
- (A)  $\sqrt{npq}$
  - (B)  $npq$
  - (C)  $n^2p^2q^2$
  - (D)  $np$
27. Consider the following measures
- a) Correlation co-efficient
  - b) Covariance
  - c) Co-efficient of variation
  - d) Index number
- Which of these are unit free ?
- (A) a) and b)
  - (B) a) and c)
  - (C) b) and d)
  - (D) a), c) and d)



28. Silo filter disease in man is due to
- (A)  $N_2O$  Poisoning
  - (B)  $NO_2$  Poisoning
  - (C) Co Poisoning
  - (D)  $Co_2$  Poisoning
29. Silence zone is defined as areas up to
- (A) 100 m around hospitals, educational institutes and courts
  - (B) 200 m around hospitals educational institutes and courts
  - (C) 400 m. around hospitals, educational institutes and courts
  - (D) 800 m. around hospital, educational institutes and courts
30. Which treatment process removes about 90% of the biodegradable material present in the water ?
- (A) Primary treatment
  - (B) Secondary treatment
  - (C) Tertiary treatment
  - (D) Both A) and C)
31. Soil erosion is maximum in
- (A) Sandy soil
  - (B) Clayey soil
  - (C) Loamy soil
  - (D) Lateritic soil
32. Homeotherms use a greater portion of the assimilated energy in respiration than Poikilotherms since they require tot of energy for
- (A) Building up of body tissues
  - (B) Maintenance of body temperature
  - (C) High growth efficiency
  - (D) None of these
33. In leaded petrol, anti knocking agent is tetra methyl-tetra ethyl lead. In unleaded petrol this agent is
- (A) Methyl-ethyl ether
  - (B) Propane
  - (C) Methyl tertiary butyl ether
  - (D) Dibromo methane
34. Which is not true about incineration of solid waste ?
- (A) There are drastic reductions in the volume and weight of waste
  - (B) The ash contains metals and other toxic substance
  - (C) The incinerators are relatively cheap to build
  - (D) The incinerators are built to generate electricity
35. Blending of 10% biodiesel with 90% conventional diesel is called
- (A) B90
  - (B) B10
  - (C) B50
  - (D) B1



36. Sewage water is purified for recycling by the action of
- (A) Light
  - (B) Eichhornia aquatic plant
  - (C) Micro organisms
  - (D) Fishes
37. Name the good soil type for agriculture
- (A) Loamy soil
  - (B) Sandy soil
  - (C) Latosols
  - (D) Serpentine soil
38. The compounds that can Promote Eutrophication of water bodies
- (A) Cu-contains compound
  - (B)  $N_2$  : contains compound
  - (C) S : contains compound
  - (D)  $O_2$  : contains compound
39. In India regarding EIA which of the following is not correct ?
- (A) Lack of trained human resource
  - (B) Lack of baseline data
  - (C) Lack of legal system
  - (D) Lack of financial reasons
40. Which of the river given below has maximum melt water component in its discharge ?
- (A) Brahmaputra
  - (B) Ganga
  - (C) Indus
  - (D) Cauvery
41. Species having wide geographical ranges often develop locally adapted populations called
- (A) Prototypes
  - (B) Paratypes
  - (C) Syntypes
  - (D) Ecotypes
42. The main cause of volcanic activity is
- (A) Movement of earth
  - (B) Faulting
  - (C) Movement of moon
  - (D) Movement of sun
43. Verification is used to
- (A) Concentrate nuclear waste
  - (B) Dispose nuclear waste
  - (C) Recycle nuclear waste
  - (D) Immobilize nuclear waste



44. Which among the following is not a measure of Central Tendency ?
- (A) Harmonic mean
  - (B) Mode
  - (C) Standard deviation
  - (D) Median
45. Soft plastic toys may contain which probable carcinogenic compounds (S) used as plasticizer (S)
- (A) Vinyl chloride
  - (B) Phthalates
  - (C) Hypochlorites
  - (D) Carbamates
46. HEAL Programme was started to
- (A) Monitor total human exposure to Pollutants
  - (B) Reestablish the disrupted ecosystem
  - (C) Establish the tolerance limits for different pollutants
  - (D) Save the representative ecosystem of the world
47. Hungal is found in
- (A) Kishtwar Bioreserve
  - (B) Dachigan
  - (C) Bandipura National Park
  - (D) Bannergatha National Park
48. If the size of the sample is very small which method of sampling gives better results ?
- (A) Stratified
  - (B) Purposive
  - (C) Random
  - (D) Census
49. Saturated level of DO in fresh water at 20°C is
- (A) 8.2 mg/L
  - (B) 9.1 mg/L
  - (C) 13.2 mg/L
  - (D) 6.8 mg/L
50. What are the two main types of data structure used in Arc GIS ?
- (A) Image and Raster
  - (B) Raster and Vector
  - (C) Image and DBF
  - (D) DBF and Vector



Total Number of Pages : 8

ಚಿತ್ತು ಬರಹಕ್ಕಾಗಿ ಸ್ಥಳ  
Space for Rough Work