

B.E IN CIVIL ENGINEERING(CV-2018-19)				
Outcome Based Education (OBE) and Choice Based Credit System (CBCS)				
SEMESTER – V				
ENVIRONMENTAL STUDIES				
Course Code	18CIV59	CIE Marks	40	
Teaching Hours / Week (L:T:P)	(1:0:0)	SEE Marks	60	
Credits	01	Exam Hours	02	
<b>Module - 1</b>				
<b>Ecosystems</b> (Structure and Function): Forest, Desert, Wetlands, Riverine, Oceanic and Lake.				
<b>Biodiversity:</b> Types, Value; Hot-spots; Threats and Conservation of biodiversity, Forest Wealth, and Deforestation.				
<b>Module - 2</b>				
<b>Advances in Energy Systems</b> (Merits, Demerits, Global Status and Applications): Hydrogen, Solar, OTEC, Tidal and Wind.				
<b>Natural Resource Management</b> (Concept and case-studies): Disaster Management, Sustainable Mining, Cloud Seeding, and Carbon Trading.				
<b>Module - 3</b>				
<b>Environmental Pollution</b> (Sources, Impacts, Corrective and Preventive measures, Relevant Environmental Acts, Case-studies): Surface and Ground Water Pollution; Noise pollution; Soil Pollution and Air Pollution.				
<b>Waste Management &amp; Public Health Aspects:</b> Bio-medical Wastes; Solid waste; Hazardous wastes; E-wastes; Industrial and Municipal Sludge.				
<b>Module - 4</b>				
<b>Global Environmental Concerns</b> (Concept, policies and case-studies): Ground water depletion/recharging, Climate Change; Acid Rain; Ozone Depletion; Radon and Fluoride problem in drinking water; Resettlement and rehabilitation of people, Environmental Toxicology.				
<b>Module - 5</b>				
<b>Latest Developments in Environmental Pollution Mitigation Tools (Concept and Applications):</b> G.I.S. & Remote Sensing, Environment Impact Assessment, Environmental Management Systems, ISO14001; Environmental Stewardship- NGOs.				
<b>Field work:</b> Visit to an Environmental Engineering Laboratory or Green Building or Water Treatment Plant or Waste water treatment Plant; ought to be Followed by understanding of process and its brief documentation.				
<b>Course outcomes:</b> At the end of the course, students will be able to:				
<ul style="list-style-type: none"><li>• CO1: Understand the principles of ecology and environmental issues that apply to air, land, and water issues on a global scale,</li><li>• CO2: Develop critical thinking and/or observation skills, and apply them to the analysis of a problem or question related to the environment.</li><li>• CO3: Demonstrate ecology knowledge of a complex relationship between biotic and a biotic components.</li><li>• CO4: Apply their ecological knowledge to illustrate and graph a problem and describe the realities that managers face when dealing with complex issues.</li></ul>				
<b>Question paper pattern:</b>				
<ul style="list-style-type: none"><li>• The Question paper will have 100 objective questions.</li><li>• Each question will be for 01 marks</li><li>• Student will have to answer all the questions in an OMR Sheet.</li><li>• The Duration of Exam will be 2 hours.</li></ul>				
Sl. No.	Title of the Book	Name of the Author/s	Name of the Publisher	Edition and Year
<b>Textbook/s</b>				
1	Environmental Studies	Benny Joseph	Tata Mc Graw – Hill.	2 <sup>nd</sup> Edition, 2012

2.	Environmental Studies	S M Prakash	Pristine Publishing House, Mangalore	3 <sup>rd</sup> Edition' 2018
3	Environmental Studies – From Crisis to Cure	R Rajagopalan	Oxford Publisher	2005
<b>Reference Books</b>				
1	Principals of Environmental Science and Engineering	Raman Sivakumar	Cengage learning, Singapur.	2 <sup>nd</sup> Edition, 2005
2	Environmental Science – working with the Earth	G.Tyler Miller Jr.	Thomson Brooks /Cole,	11 <sup>th</sup> Edition, 2006
3	Text Book of Environmental and Ecology	Pratiba Sing, AnoopSingh & PiyushMalaviya	Acme Learning Pvt. Ltd. New Delhi.	1 <sup>st</sup> Edition

  
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 14/5, Chikkasandra, Hesaraghatta Main Road  
 Bengaluru - 560 057







Class : EEF Sec : 'A' Subject : Environmental Studies 18CIV59

Sl. No	USN	NAME	18/ 10	19/ 10	22/ 11	9/11	23/11	30/11	07/12	14/12	28/12
			1	2	3	4	5	6	7	8	9
1	ISG20EEF001	Aditya Anand Hawali	1	2	3	4	5	6	7	8	9
2	ISG20EEF002	Aishwatha B	1	2	3	4	5	6	7	8	9
3	ISG20EEF003	Ananya R	1	2	3	4	5	6	7	8	9
4	ISG20EEF004	Chethan Kumar G	1	2	3	4	5	6	7	8	9
5	ISG20EEF005	Chethana N	1	2	3	4	5	6	7	8	9
6	ISG20EEF006	Deepa shelkey S	1	2	3	4	5	6	7	8	A
7	ISG20EEF007	Druja Phool AH	1	2	3	4	5	6	7	8	9
8	ISG20EEF008	Gagan MN	1	2	A	3	4	A	5	6	7
9	ISG20EEF009	Gagan Shamba Patagar	A	A	1	2	3	4	5	6	7
10	ISG20EEF010	Gaman L	1	2	3	4	5	6	7	8	9
11	ISG20EEF011	Harshith M K	1	2	3	4	5	A	6	7	8
12	ISG20EEF012	Hemanth S	1	2	3	4	5	6	7	8	9
13	ISG20EEF013	Jayashree B.G	1	2	3	A	4	5	6	7	8
14	ISG20EEF014	Kavya S Jevargi	1	2	3	4	5	6	7	8	9
15	ISG20EEF015	M V Haruhitha	1	2	3	4	5	6	7	8	A
16	ISG20EEF016	Madhusudana KJ	1	2	3	4	5	A	A	6	7
17	ISG20EEF017	Madhusudhan V	1	2	A	3	4	5	6	7	8
18	ISG20EEF018	Manjunath B P	1	2	A	A	3	4	5	6	7
19	ISG20EEF019	Mohan S	1	A	A	2	3	4	5	6	7
20	ISG20EEF020	Nandini N	1	2	3	4	5	6	7	8	9
21	ISG20EEF021	Nitesh S S	1	2	3	4	5	A	A	6	7
22	ISG20EEF022	Pooja TR	1	2	3	4	5	6	7	8	A
23	ISG20EEF023	Pragathi NR	1	2	3	4	5	A	A	6	7
24	ISG20EEF024	Prerna Sharma	1	2	3	4	5	6	7	8	9
25	ISG20EEF025	Rajeshwar C H	1	2	3	4	5	6	7	8	9
	Initial		pal	pal	pal	pal	pai	pal	pal	pal	pal

04/ 01		11/ 01						Total No of Classes	Percentage	Test Marks				Assignment	Final CIE	Exam Marks	Result (P/F)
10	11	12	43	44	45	46	60			T1	T2	T3	T Avg				
10	11							11	100	25	25	28	26	10	36	38	74
10	11							11	100	25	27	29	27	10	37	30	67
10	11							11	100	26	17	28	24	10	34	29	63
10	11							11	100	25	24	28	26	10	36	33	69
10	11							11	100	26	25	27	26	10	36	39	75
9	10							10	91	20	28	28	26	10	36	36	72
10	11							11	100	23	25	29	26	10	36	29	65
8	9							9	88	23	26	28	26	10	36	39	75
8	9							9	88	19	18	25	21	10	31	32	63
10	11							11	100	25	24	28	26	10	36	39	75
9	10							10	91	27	27	30	28	10	38	30	68
10	11							11	100	28	26	27	27	10	37	41	78
9	10							10	91	27	26	28	27	10	37	37	74
10	11							11	100	28	27	27	27	10	37	41	78
9	10							10	91	29	26	29	28	10	38	41	79
8	9							10	88	26	27	28	27	10	37	39	76
9	10							10	91	27	28	28	28	10	38	38	74
8	9							9	88	25	26	27	26	10	36	36	71
8	9							9	88	26	24	25	25	10	35	35	70
10	11							11	100	27	27	27	27	10	37	37	74
8	9							9	88	27	25	28	27	10	37	37	74
9	10							10	91	29	22	27	26	10	36	36	72
8	9							9	88	23	23	26	24	10	36	38	74
10	11							11	100	23	17	25	22	10	32	37	69
10	11							11	100	26	17	28	24	10	34	36	70

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Internal Assessment -I

Subject: Environmental Studies	Sub Code: 18CIV59	Name of the Course Instructors
Semester/Section: Common to all branches	Max.Marks: 30	KHP, PGA, A.J. MHK,BCH , VS
Duration: 1 hr	Date- 17.11.2022	Time: 10:15 Am to 11:15 Am

Note: Answer all the questions

- The world population in 2000 was around  
a) 8 billion b) 6.1 billion c) 7.1 billion d) 5.1 billion
- The universal declaration of human rights was proclaimed by the UN in the year  
a) 1946 b) 1947 c) 1948 d) 1949
- The major objective of family programmes in india is  
a) Disease control population  
b) Population growth rate control  
c) Employment generation  
d) None of the above
- Which of the following conceptual spheres of the environment is having the least storage capacity for matter?  
a) Atmosphere b) Lithosphere c) Hydrosphere d) Biosphere
- Atmosphere consists of 79 per cent Nitrogen and 21 per cent Oxygen by  
a) Volume b) weight c) Density d) All the three
- In complex ecosystems the degree of species diversity is  
a) Poor b) high c) medium d) none
- The sequence of eating and being eaten in an ecosystem is called  
a) Food Chain b) carbon cycle c) hydrological cycle d) anthropo system
- Which of the following is a producer in an ecosystem?  
a) Plants and some bacteria capable of producing their own food  
b) Animals c) Human beings d) Fish
- The largest reservoir of nitrogen in our planet is  
a) Oceans b) Atmosphere c) biosphere d) Fossil fuels
- In aquatic ecosystem phytoplankton can be considered as a  
a) Consumer b) Producer c) Saprotrophic organisms d) Macroconsumer
- The basic requirements of human beings are provided by  
a) Industrialization b) Agriculture c) Nature d) Urbanization
- In an ecosystem biological cycling of materials is maintained by  
a) Producer b) Consumer c) Decomposer d) All of the above
- Organisms which feed directly or indirectly on producers are called  
a) Prey b) Consumers c) Decomposers d) Detritus
- Which of the following statement is true?  
a) Green plants are self-nourishing  
b) Producers depends on consumers  
c) Biotic components include all non-living components  
d) Herbivores depend on Carnivores
- Primary consumer is  
a) Herbivores b) Carnivores c) Macro consumers d) Omnivores
- A predator is  
a) An animal that is fed upon  
b) An animal that feeds upon another animal  
c) Animal that feeds upon both plants and animals  
d) A primary consumer
- Which of the following is absorbed by green plants from the atmosphere?  
a) Carbon dioxide  
b) Water  
c) Nutrients  
d) All of above
- Habitat refers to  
a) Physical conditions of the place where organisms live

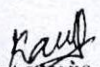
  
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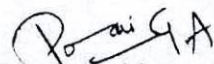
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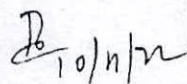


- c) Both a & b d) None of a or b
19. A food web consists of
- a) a portion of a food chain
  - b) an organism's position in a food chain
  - c) interlocking food chains
  - d) a set of similar consumers
20. Which of the following is a ecosystem?
- a) Forest
  - b) desert
  - c) Mountain
  - d) All.
21. Environment means
- a) Surrounding (Biotic + Abiotic components), in which organisms live
  - b) Atmosphere around one self.
  - c) Sum total of social, Economic, biological behavior of animals.
  - d) Sum total of development activities around.
22. .... is termed as the life zone of the earth.
- a) Atmosphere
  - b) Hydrosphere
  - c) Biosphere
  - d) Stratosphere.
23. The term ecosystem was first proposed by
- a) Jacob van verkul
  - b) A G Transley
  - c) Costraza
  - d) Marie Gibbs
24. The two major components of ecosystem are
- a) Adiabatic & Isotropic
  - b) Ecologic & climatologic
  - c) Cyclic & biologic
  - d) Abiotic & biotic.
25. Biotic components include
- a) All living organisms
  - b) water, mineral & gases
  - c) Self-nourishing green plants
  - d) Light, temperature etc.
26. Food chain is divided into----- basic categories
- a) Four
  - b) Three
  - c) Five
  - d) Seven
27. Mining practices lead to
- a) Population growth
  - b) Rapid urbanization
  - c) Loss of grazing and fertile land
  - d) None of these
28. Which of the following are major environmental issues involved in mining?
- a) Air pollution from dust
  - b) Water pollution
  - c) Soil degradation
  - d) All of the above
29. Mining means
- a) To conserve & preserve minerals
  - b) To check pollution due to mineral resources
  - c) To extract minerals and ores
  - d) Soil
30. Gold occurs in
- a) Sedimentary deposits
  - b) Places deposits
  - c) Hydrothermal deposits
  - d) None.

CO 1	Understand the principles of ecology and environmental issues that apply to air, land and water issues on a global scale
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Signature of Course Instructors

  
Scrutinized by

  
HOD

  
Principal  
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Q.No

Questions

Marks

16} b

17} a

18} c

19} c

20} d

21} a

22} c

23} b

24} d

25} a

26} b

27} c

28} d

29} c

30} b

1 Mark for  
each

15

  
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10/2/22





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**F-IAT-04/R0****Internal Assessment Test-II**

Subject: <b>Environmental Studies</b>	Sub Code: <b>18CIV59</b>	Name of the course instructors.
Semester/Section: <b>5<sup>th</sup> SEM</b>	Max Marks: <b>30</b>	<b>PGA, AJ, KHP, VS, BCH, PKR, MHK</b>
Duration: <b>60 Minutes</b>	Date: <b>27.12.2022</b>	Time: <b>9.30am to 10.30am</b>

**Note: Answer all the questions**

1. Presence of pesticides in water causes cancer and neurological disorders because of  
a. CO<sub>2</sub> b. DDT & Heptachlor c. Methane d. SO<sub>2</sub>
2. Fluoride through is an effective agent to preventing dental caries, has a permissible limit of  
a. 0.5mg/L b. 1.5mg/L c. 5mg/L d. 15mg/L
3. Skeletal fluorosis is characterized by  
a. Severe and permanent bone joint deformation b. Disordered blackened  
c. Nervous breakdown d. Anemic
4. Fluorosis is caused due to  
a. No fluoride intake b. Low fluoride intake c. Excessive fluoride intake d. None
5. Decrease of oxygen level in water mainly causes  
a. Fluorosis b. Death of aquatic life c. water pollution d. all the above
6. Malaria is a  
a. Water-borne disease b. water induced disease c. both a & b d. None
7. Water borne diseases can spread rapidly due to  
a. Proper sanitation b. Improper sanitation c. improves sanitation d. None
8. about ----- % of the earth's surface is covered by water  
a. 53% b. 19% c. 71% d. 90%
9. What is the maximum allowable concentration of fluorides in drinking water? a. 6 to 9 b.  
6.5 to 7.5 c. 6 to 8.5 d. 6.5 to 8.5
10. Major source of fluoride is  
a. River water b. Tooth paste c. Ground water d. Food products
11. Deforestation can  
a) Increase the rain fall b) Increase soil fertility  
c) Introduce silt in the rivers d) None of these
12. ....Plants use gas for photosynthesis  
a) Oxygen b) methane c) Nitrogen d) Carbon dioxide
13. What percentage of its geographical area of a country should be under forest cover?  
a) 23% b) 43% c) 13% d) 33%
14. During photosynthesis, trees produce  
a) Oxygen b) Carbon Dioxide c) Nitrogen d) Carbon Monoxide
15. Percentage of worlds total water supply that is considered easily accessible fresh water for humanuse  
a. 1% b. 10% c. 20% d. 100%
16. Which of the following is the source of ground water?  
a) Oceans b. Springs c. Rivers d. All

  
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**DEPARTMENT OF CIVIL ENGINEERING**

**SCHEME & SOLUTION  
INTERNAL ASSESSMENT**

Subject : *Environmental Studies*  
 Subject Code : *18CIV59*  
 Date: *20/12/21*

IA : First / Second / Third  
 Staff-In charge : *All faculties*

Question Number	Solution	Marks Allocated
1)	b	
2)	b	
3)	a	
4)	c	
5)	b	
6)	b	
7)	b	
8)	c	
9)	d	
10)	c	
11)	c	
12)	d	
13)	d	
14)	a	
15)	a	
16)	b	
17)	a	
18)	b	
19)	a	
20)	d	

  
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## Environmental Studies

Time 2 hrs.]

[Max Marks: 50]

1. Answer all the fifty questions, each question carries ONE mark.
2. Use only Black ball point pen for writing / darkening the circles.
3. For each question, after selecting your answer, darken the appropriate circle corresponding to the same question number on the OMR sheet.
4. Darkening two circles for the same question makes the answer invalid.
5. Damaging/overwriting, using whiteners on the OMR sheets are strictly prohibited.

1. The study of interaction between living organisms and environment is called as -  
a) Ecosystem                      b) Ecology                      c) phytogeography                      d) phytosociology
2. Soil Erosion can be prevented by -  
a) Overgrazing                      b) Soil Erosion                      c) Afforestation                      d) Deforestation
3. Khetri (Rajasthan) is famous for -  
a) Gold mines                      b) Copper mines                      c) Granite stone                      d) Marble stone
4. Which one of the following is an abiotic component of the ecosystem  
a) Bacteria                      b) Plant                      c) Human                      d) Fungi
5. Increase in fauna and decrease in flora would be harmful due to increase in  
a) Diseases                      b) CO<sub>2</sub>                      c) O<sub>2</sub>                      d) Radioactive pollution
6. Acid rain is caused by increase in the atmospheric concentration of -  
a) Ozone and dust                      b) SO<sub>2</sub> and NO<sub>2</sub>                      c) SO<sub>3</sub> and CO                      d) SO<sub>2</sub> and Cr
7. Gas leaked in Bhopal tragedy was -  
a) Potassium isothiocyanate                      b) Sodium isothiocyanate  
c) Ethyle isocyanate                      d) Methyl isocyanate

8. Biochemical oxygen demand measures
  - a) Industrial pollution
  - b) Air pollutions
  - c) Polluting capacity of effluents
  - d) Dissolved oxygen needed to decompose organic matter
9. The ultraviolet radiation in the stratosphere are absorbed by –
  - a) Ozone
  - b) Oxygen
  - c) Sulphur dioxide
  - d) Argon
10. Which of the following is not a green house gas?
  - a) Oxygen
  - b) Carbon dioxide
  - c) Chlorofluro carbon
  - d) Methane
11. Formation of hole in ozone layer is maximum over –
  - a) India
  - b) Antarctica
  - c) Europe
  - d) Africa
12. Study of trends in human population growth and prediction of future growth is called –
  - a) Demography
  - b) Biography
  - c) Kalography
  - d) Psychology
13. Vasectomy is the method of sterilization in –
  - a) Man
  - b) Woman
  - c) Both man and Woman
  - d) None of these
14. The world AIDS DAY is recalled on
  - a) 1<sup>st</sup> July
  - b) 5<sup>th</sup> June
  - c) 1<sup>st</sup> December
  - d) 2<sup>nd</sup> October
15. ICDS is a welfare scheme for –
  - a) Public
  - b) Woman
  - c) Man
  - d) Children
16. The common pollutants present in pond and pools nearby agricultural fields are –
  - a) Dust
  - b) Straw
  - c) Pollens
  - d) Chemical fertilizer and pesticides
17. The highest concentration of people with HIV infection have been recorded from –
  - a) India
  - b) America
  - c) China
  - d) Africa
18. Which endangered animal is the source of the worlds lightest, warmest and most expensive wool the shahtoash
  - a) Chiru
  - b) Nilgai
  - c) Cheetal
  - d) Kasbmiri goat
19. The largest reservoir of nitrogen in our planet is –
  - a) Oceans
  - b) Atomosphere
  - c) Biosphere
  - d) Fossil fuels
20. Maximum deposition of DDT will occur in
  - a) Phytoplankton
  - b) Crab
  - c) Eel
  - d) Seagull
21. Which of the following is a bio – diversity hotspots in India
  - a) Gulf of Mannar
  - b) Western Ghats
  - c) Pachmorth
  - d) Sunderban
22. Which of the following are likely to be present in photochemical smog?
  - a) Ozone
  - b) Peroxy acetyl nitrates
  - c) Aldehydes
  - d) All the above



23. Which of the following strategies should be given first preference as far as the management of plastic waste is concerned  
 a) Recycle b) Reuse c) Reduce the usage d) none of the above
24. Nuclear power plant in Karnataka is located at -  
 a) Bhadravathi b) Sandur c) Raichur d) Kaiga
25. Biogas is gaseous fuel composed mainly of  
 a)  $\text{CH}_4$  and  $\text{CO}_2$  b)  $\text{CH}_4$  and  $\text{H}_2\text{S}$  c)  $\text{CH}_4$  and CO d) None of the above
26. Physical pollution of water is due to -  
 a) D.O b) Turbidity c)  $\text{pH}$  d) None
27. Air pollution from automobiles can be controlled by fitting -  
 a) Electrostatic precipitator b) Wet scrubber  
 c) Catalytic converter d) All the above
28. Global warming could affect -  
 a) Climate b) Increase in sea level  
 c) Melting of glacier d) All the above
29. Environmental (protection) act was enacted in the year -  
 a) 1986 b) 1992 c) 1984 d) 1974
30. The water (prevention and control of pollution) act was enacted in the year  
 a) 1986 b) 1974 c) 1994 d) 2004
31. World environment day is celebrated on -  
 a) 5<sup>th</sup> May b) 5<sup>th</sup> June c) 10<sup>th</sup> July d) 16<sup>th</sup> August
32. Chernobyl nuclear disaster occurred in the year -  
 a) 1984 b) 1985 c) 1986 d) 1987
33. Ozone layer thickness is measured in -  
 a) Millimetre b) Centimetre c) Decibel d) Debson units
34. Which of the following is a waterborne disease -  
 a) Anthrax b) Tuberculosis c) Cholera d) Small pox
35. Which one of the following gas is most abundant in atmosphere?  
 a) Methane b) Nitrogen c) CFC d)  $\text{CO}_2$
36. Which of the following is not a method for water conservation  
 a) Rain water harvesting b) Groundwater extraction  
 c) Improving irrigation efficiency d) Avoiding water wastage
37. Suvarnarekha is in  
 a) Andhra Pradesh b) Himachal Pradesh  
 c) Kerala d) Tamil Nadu

38. A chronic disease called silicosis involves -  
 a) Heart b) Lungs c) Liver d) Kidney
39. Existing oil reserve of the earth could last for about -  
 a) 5000 yrs b) 500 yrs c) 50 yrs d) 5 yrs
40. EIA stands for -  
 a) Environmental industrial impact b) Eco industrial assessment  
 c) Eco impact assessment d) Environmental impact assessment
41. Water quality involves measuring the number of colonies of -  
 a) Coliform bacteria b) Protozoa c) Colis d) Chromozomes
42. About 3/4<sup>th</sup> of the country's coal deposits are found in -  
 a) Karnataka b) Tamil Nadu c) Kashmir d) Bihar and Orissa
43. What would you do to prevent the environmental damage  
 a) Plant tree b) Halt deforestation c) Control pollution d) All the above
44. Which of the following is not a part of the hydrological cycle -  
 a) Precipitation b) Infiltration c) Transpiration d) Perspiration
45. Eutrophication is -  
 a) An improved quality of water in lakes  
 b) A process of carbon cycle  
 c) The result of accumulation of plant nutrients in water bodies  
 d) a water purification technique
46. Common energy source in Indian villages is  
 a) Electricity b) Coal c) Sun d) Wood and animal dung
47. Chipko movement was started to conserve  
 a) Forest b) Grassland c) Deserts d) Soil
48. National park concerned with Rhinoceros is  
 a) Corbett b) Ranthambore c) Kaziranga d) Valley of flowers
49. The maximum number of individuals that can be supported by a given environment is called -  
 a) Biotic potential b) Carrying capacity  
 c) Population size d) Environmental resistance
50. What is the permissible range of  $\text{pH}$  for drinking water as per the Indian standards?  
 a) 6 to 9 b) 6.5 to 7.5 c) 6 to 8.5 d) 6.5 to 8.5



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30. Biogas is produced by.  
a) Microbial activity  
c) Both (a) and (b)
31. Biomass consists of.  
a) Lignin  
c) Cellulose
32. Petroleum based vehicles emit traces of.  
a) CO and NO<sub>x</sub>  
c) Aldehydes
33. Urbanization is  
a) Local environmental issue  
c) Both (a) and (b)
34. Noise pollution limits in industrial area.  
a) 45 dB  
c) 65 dB
35. Ozone layer absorbs  
a) UV rays  
c) Cosmic rays
36. Water logging is a phenomenon in which.  
a) Crop patterns are related  
c) Erosion of soil
37. The natural nitrogen cycle is upset due to.  
a) Burning of fossil fuel  
c) Global warming
38. Which of the following are natural sources of air pollution?  
a) Volcanic eruption  
c) Earthquake
39. Air pollution from automobiles can be controlled by fitting.  
a) Electrostatic precipitator  
c) Catalytic converter
40. Both power and manure provided by  
a) Nuclear plants  
c) Biogas plants
- b) Harvesting crop  
d) None of these
- b) Hemi cellulose  
d) All of these
- b) SPM  
d) CH<sub>4</sub>
- b) National environmental issue  
d) Not at all an issue
- b) 80 dB  
d) 90 dB
- b) Infrared rays  
d) CO
- b) Plant nutrients  
d) None of these
- b) Modern agricultural practice of releasing excess fertilization  
d) Biogas production
- b) Solar flair  
d) All of these
- b) Wet scrubber  
d) All of these
- b) Thermal plants  
d) Hydroelectric plants

- C4 -

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## CBCS Scheme

USN 18G16BT039

Question Paper Version : C

First/Second Semester B.E Degree Examination, Dec.2016/Jan.2017  
Environmental Studies

(COMMON TO ALL BRANCHES)

[Max. Marks 40]

Time: 2 hrs.]

## INSTRUCTIONS TO THE CANDIDATES

1. Answer all the forty questions, each question carries ONE mark
2. Use only Black ball point pen for writing / darkening the circles.
3. For each question, after selecting your answer, darken the appropriate circle corresponding to the same question number on the OMR sheet
4. Darkening two circles for the same question makes the answer invalid
5. Damaging/overwriting, using whiteners on the OMR sheets are strictly prohibited

1. Land conversion through burning of biomass releases.  
a) O<sub>2</sub>      b) CO      c) N<sub>2</sub>      d) SO<sub>2</sub>
2. The movement of carbon between \_\_\_\_\_ is called carbon cycle.  
a) Atmosphere and biosphere      b) Atmosphere and hydrosphere  
c) Geosphere and atmosphere      d) Biosphere, atmosphere, hydrosphere and geosphere
3. The ground water depends on.  
a) Amount of rain fall      b) Geological formations  
c) Run off      d) All of these
4. The important three minerals mined into the maximum extent are.  
a) Coal, petroleum and mercury      b) Coal, Petroleum and Iron  
c) Petroleum, Radium and Xenon      d) Helium, Xenon and Coal
5. Respiration and photosynthesis are the keywords related to.  
a) Nitrogen cycle      b) Sulphur cycle  
c) Carbon cycle      d) Hydrological cycle
6. Mining means.  
a) To conserve and preserve minerals  
b) To check pollutions due to mineral resources  
c) To extract minerals and ores  
d) None of these

- C1 -

Principal  
Sapthagiri College of Engineering  
14/5, Chikkasandra, Hesarghatta Main Road  
Bengaluru - 560 057



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7. The most important fuel used by nuclear power plant is,  
 a) V-235 - b) V-238 c) V-245 d) V-248
8. The pH value of the acid rain water is,  
 a) 5.7 b) 7.0 c) 8.5 d) 7.5
9. BOD means,  
 a) Biochemical oxygen demand - b) Chemical oxygen demand  
 c) Biophysical oxygen demand d) All of these
10. Deforestation can  
 a) Increase the rain fall b) Increase soil fertility  
 c) Introduce silt in the rivers. d) None of these
11. Organic farming is,  
 a) Farming without using pesticides and chemical fertilizers  
 b) Enhances biodiversity  
 c) Promotes soil biological activity  
 d) All of these
12. Chloro Fluro Carbon's (CFC) are,  
 a) Non toxic b) Non flammable  
 c) Non carcinogenic d) All of these
13. Which of the following statement is true?  
 a) Green plants are self nourishing  
 b) Producers depends on consumers  
 c) Biotic components includes all non-living components  
 d) Herbivores depend on Carnivores
14. Major purpose of most of the Dams around the world is,  
 a) Power generation b) Drinking water supply  
 c) Flood control d) Irrigation
15. Major causes of deforestation are  
 a) Shifting cultivation b) Fuel requirements  
 c) Raw materials for industries d) All of these
16. Smog is,  
 a) A natural phenomenon b) Combination of smoke and fog  
 c) Colorless d) All of these
17. Which of the following conceptual spheres of the environmental is having the least storage capacity for matter?  
 a) Atmosphere b) Lithosphere  
 c) Hydrosphere d) Biosphere

- C2 -

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18. Biosphere is,  
 a) The solid shell of inorganic materials on the surface of the earth  
 b) The thin shell of organic matter on the surface of each comprising of all the living things.  
 c) The sphere which occupies the maximum volume of all the spheres  
 d) All of the above
19. The earth's atmosphere is an envelope of gases present upto a height of about \_\_\_\_\_ kms  
 a) 10 b) 200 c) 1000 d) 2000
20. Primary consumer is,  
 a) Herbivores b) Carnivores c) Macro consumers d) Omnivores
21. World environmental day is on  
 a) 5<sup>th</sup> May b) 5<sup>th</sup> June c) 18<sup>th</sup> July d) 16<sup>th</sup> August
22. Green revolution is,  
 a) Crop variety improvements b) Increased use of fertilizers  
 c) Expansion of irrigation d) All of these
23. Environmental is the life support system that includes,  
 a) Air b) Water c) Land d) All of these
24. The largest reservoir of nitrogen in our planet is  
 a) Oceans b) Atmosphere c) Biosphere d) Fossil fuels
25. Which of the following is not a Green house gas?  
 a) Hydro chlorofluorocarbons b) Methane  
 c) CO<sub>2</sub> d) SO<sub>2</sub>
26. E.I.A can be expanded as  
 a) Environment and Industrial Act b) Environment and impact activities  
 c) Environment Impact Assessment d) Environment important Activities
27. The environmental (protection) act 1986 deals with  
 a) Water b) Air  
 c) Soil d) All of these
28. The first of the major environmental protection act to be promulgated in India was  
 a) The wild life protection act b) The air act  
 c) The noise pollution act d) None of these
29. The meaning of global warming is,  
 a) Increase in the temperature of climate b) A planet hotter than earth  
 c) Solar radiation d) Cooling effect

Principal  
 Sapthagiri College of Engineering  
 14/5, Chikkasandra, Hosaraghatta Main Road  
 Bengaluru - 560 057

$$R(\text{ref. temp}) = \frac{V}{T} \rightarrow \text{ref. temp}$$

$$T \uparrow \quad V \rightarrow$$



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USN

Question Paper Version : A

First/Second Semester B.E Degree Examination, June/July 2015

**Environmental Studies**

(COMMON TO ALL BRANCHES)

Time: 2 hrs.]

[Max. Marks: 50

**INSTRUCTIONS TO THE CANDIDATES**

1. Answer all the fifty questions, each question carries ONE mark.
2. Use only **Black ball point pen** for writing / darkening the circles.
3. For each question, after selecting your answer, darken the appropriate circle corresponding to the same question number on the OMR sheet.
4. Darkening two circles for the same question makes the answer invalid.
5. **Damaging/overwriting, using whiteners on the OMR sheets** are strictly prohibited.

1. Nutrient cycling is most related to appropriately.  
a) Energy, waste, nutrients  
b) Autotrophs, nutrients, decomposers  
c) Light, weight, nutrients  
d) None of these
2. In an ecosystem, the flow of energy is  
a) Bidirectional  
b) Cyclic  
c) Unidirectional  
d) Multidirectional
3. Which of the following is not a part of the hydrological cycle?  
a) Precipitation  
b) Infiltration  
c) Transpiration  
d) Perspiration
4. The word 'Environment' is derived from  
a) Greek  
b) French  
c) Spanish  
d) English
5. Which of the following is the terrestrial ecosystem?  
a) Forest  
b) Grass land  
c) Desert  
d) All of these
6. Which of the following is not a part of atmosphere?  
a) mesosphere  
b) Heterosphere  
c) Biosphere  
d) stratosphere.
7. EIA study will help  
a) maximizing the benefits without over loading the planet ecosystem.  
b) To estimate the future needs of the society  
c) To smooth implementation of the project.  
d) To cope up with rapid growth of population



8. Sustainable development means  
 a) Meeting present needs without compromising on the future needs.  
 b) Progress in human well beings.  
 c) Balance between human needs and the ability of earth to provide the resources.  
 d) All of these.
9. Mineral resources are  
 a) Renewable  
 b) Non renewable  
 c) Equally distributed  
 d) None of the above
10. India has the largest share of which of the following?  
 a) Manganese  
 b) Mica  
 c) Copper  
 d) Diamond
11. Fluoride though is an effective agent to preventing dental caries, has a maximum permissible limit of  
 a) 0.5 mg/l of water  
 b) 1.5 mg/l of water  
 c) 5 mg/l of water  
 d) 15 mg/l of water
12. Carbon content is higher in  
 a) Soil  
 b) Atmosphere  
 c) Water  
 d) Lining matter
13. Cholera and typhoid are caused by  
 a) Worms  
 b) Virus  
 c) Bacteria  
 d) Fungus
14. The required iron content in drinking water as specified by BIS is  
 a) 300 mg/l  
 b) 30 mg/l  
 c) 3 mg/l  
 d) 0.3 mg/l
15. Major source of fluoride is  
 a) River water  
 b) Tooth paste  
 c) Ground water  
 d) Food products
16. LPG is a mixture of  
 a)  $N_2$  and  $H_2S$   
 b) Propane and butane  
 c)  $CO_2$  and  $N_2$   
 d) Methane and ethane
17. Nuclear fusion reaction occurs in  
 a) The sun  
 b) Stars  
 c) Hydrogen bomb  
 d) All the these
18. Choose the sequence of production of electricity from hydrogen  
 i) Electrolysis of water  
 ii) Performing a fuel cell reaction  
 iii) Storage of hydrogen  
 a) (i), (ii), (iii)  
 b) (i), (iii) and (ii)  
 c) (ii), (iii) and (i)  
 d) (ii), (i) and (iii)
19. Chernobyl nuclear disaster occurred in the year  
 a) 1984  
 b) 1952  
 c) 1986  
 d) 1987
20. Which resources are inexhaustible?  
 a) renewable  
 b) fossil fuel  
 c) non renewable  
 d) mineral
21. Direct conversion of solar energy is attained by  
 a) Solar photo voltaic system  
 b) Solar diesel hybrid system  
 c) Solar thermal system  
 d) Solar air heater



Which place in India the tidal energy has been experimented?

- a) Goa                      b) Karnataka                      c) Kerala                      d) Tamil Nadu

Hydrogen energy can be tapped through

- a) heat pumps                      b) fuel cells                      c) photovoltaic cells                      d) gasifiers

Molasses from sugar industry is used to generate

- a) biodiesel                      b) hydrogen                      c) bioethanol                      d) biomethanol

5. Bhopal gas tragedy caused due to the leakage of

- a) Methyl ISO Cyanate (MIC)                      b) Methane  
c) Sulphur dioxide                      d) Carbon monoxide

26. Noise pollution limits at residential area

- a) 80 dB                      b) 45 dB                      c) 60 dB                      d) 90dB

Ozone layer is present in

- a) Troposphere                      b) Stratosphere                      c) Mesosphere                      d) Thermosphere

8. Odour in water can be removed by

- a) Aeration                      b) Changing pH                      c) Sedimentation                      d) None of these

9. Which of the following is an air pollutant:

- a) Oxygen                      b) Particulate matter                      c) Nitrogen                      d) Carbon dioxide

10. The protocol that reduces green house gas emission is

- a) Kyoto protocol                      b) Montreal protocol                      c) Vienna protocol                      d) Basal protocol

1. The process of movement of nutrients from the soil by acid rain is called

- a) Transpiration                      b) Thermosphere                      c) Infiltration                      d) Leaching

2. Which of the following is not a method for water conservation:

- a) rain water harvesting                      b) reducing water usage  
c) ground water extraction                      d) water recycling

3. Smog is

- a) natural phenomenon                      b) combination of smoke and fog  
c) colourless                      d) all of these

4. The wild life protection act in India was passed in

- a) 1978                      b) 1972                      c) 1986                      d) 1992

5. Air (prevention and control of pollution) Act in India was passed in

- a) 1970                      b) 1975                      c) 1981                      d) 1999

6. The Tiger conservation project was started in the year

- a) 1973                      b) 1984                      c) 1999                      d) 2004

37. The leader of "Chipko movement" is

- a) Sunderlal Bahuguna                      c) vandana shiva  
b) medha patkar                      d) suresh Heblikar



38. "Earth day" is observed on  
 a) 1<sup>st</sup> December      b) 5<sup>th</sup> June

c) April 22<sup>nd</sup>

d) 1<sup>st</sup> January

39. The committee which submitted its report to government of India on environmental education  
 a) Tiwari Committee  
 b) Mehta Committee  
 c) Banerjee Committee  
 d) Agarwal Committee

40. BOD means  
 a) Biochemical oxygen demand  
 b) Chemical oxygen demand  
 c) Biophysical oxygen demand  
 d) All of these

41. The pH value of the acid rain water is  
 a) 5.7  
 b) 7.0

c) 8.5

d) 7.5

42. Ozone layer thickness is measured in  
 a) PPM  
 b) PPB

c) Decibels

d) Dobson units

43. Eutrophication is  
 a) An improved quality of water in lakes  
 b) A process in carbon cycle  
 c) The result to accumulation of plant nutrients in water bodies  
 d) A water purification technique.

44. Wind energy generation depends on  
 a) direction of wind  
 b) velocity of wind.  
 c) humidity  
 d) precipitation

45. Nitrate concentration above 45 mg/l causes  
 a) Vomiting  
 b) Dysentery  
 c) Typhoid  
 d) Blue Baby disease

46. Ozone hole is said to occur when the ozone level decreases below  
 a) 200 Du  
 b) 2000 Du  
 c) 20 Du

d) 2 Du

47. Acid rain can be controlled by  
 a) reducing SO<sub>2</sub> and NO<sub>2</sub> emissions  
 b) reducing CO and hydrocarbons emissions  
 c) Increasing number of lakes  
 d) None of these

48. Animal husbandry may result in  
 a) Global warming  
 b) Acid rain  
 c) Ozone depletion  
 d) None of these

49. Freons are  
 a) HFC

b) CFC

c) NFC

d) Hydrocarbons

50. Ozone hole was first discovered over  
 a) Arctic  
 b) Antartica

c) Tropical region

d) Africa.

\* \* \* \* \*