



B.TECH DEGREE EXAMINATIONS: MAY 2017

(Regulation 2015)

Fourth Semester

U15EST004: ENVIRONMENTAL SCIENCE IN TEXTILE AND APPAREL TECHNOLOGY

(Common to FT & TXT)

COURSE OUTCOMES

- CO1:** Analyze the impact of engineering solutions in a global and societal context
CO2: Discuss contemporary issues that results in environmental degradation and would attempt to provide solutions to overcome those problems
CO3: Highlight the importance of ecosystem and biodiversity
CO4: Ability to consider issues of environment and sustainable development in his personal and professional undertakings
CO5: Paraphrase the importance of conservation of resources.
CO6: Play an important role in transferring a healthy environment

Time: Three Hours

Maximum Marks: 100

Answer all the Questions:-

PART A (10 x 1 = 10 Marks)

1. Match List I with List II and select the correct answer using the code given below

CO1 [K₂]

List I	List II
A. World Earth day	i. 21 March
B. World environment day	ii. 22 March
C. International day of forests	iii. 5 June
D. World water day	iv. 22 April

- | | A | B | C | D |
|----|----|-----|----|----|
| a) | ii | iii | iv | i |
| b) | iv | iii | i | ii |
| c) | i | iii | ii | iv |
| d) | iv | iii | ii | I |

2. Which of the following is a renewable source of energy

CO5 [K₂]

- | | |
|---------|--------------|
| a) Wind | b) Petroleum |
| c) Coal | d) Oil |

9. Assertion (A): Human Immunodeficiency Virus causes AIDS CO6 [K₃]
Reason (R): The virus destroys T-helper cells in the immune system
- a) Both A and R are Individually true and R is the correct explanation of A b) Both A and R are Individually true but R is not the correct explanation of A
c) A is true but R is false d) A is false but R is true
10. Choose the correct sequence of countries in increasing order of projected population by the year 2050: 1. United States 2. China 3. India 4. Indonesia CO6 [K₂]
- a) 1-2-3-4 b) 2-3-1-4
c) 4-1-2-3 d) 3-2-1-4

PART B (10 x 2 = 20 Marks)

(Answer not more than 40 words)

11. Deforestation is a major cause for raising global temperatures - justify CO5 [K₃]
12. List the environmental impacts of land degradation CO5 [K₂]
13. Compare the ecological pyramid of biomass of forest ecosystem with that of pond ecosystem CO3 [K₃]
14. Differentiate between endemic and endangered species of biodiversity CO3 [K₃]
15. Textile industry is a source of hazardous waste generation – justify. CO4 [K₄]
16. State out the indoor safety tips to be followed during an earthquake CO2 [K₃]
17. Define sustainable development CO4 [K₂]
18. Outline the causes and effects of acid rain CO2 [K₃]
19. Catalog the services provided under Integrated Child Development Services(ICDS) CO6 [K₂]
20. How does H1N1 virus transmitted from one person to another? CO6 [K₂]

Answer any FIVE Questions:-

PART C (5 x 14 = 70 Marks)

(Answer not more than 300 words)

Q.No. 21 is Compulsory

21. (i) “Conservation of water is conservation of life on earth” – comment and explain (7) CO5 [K₃]
rain water harvesting technique with a neat diagram
- (ii) With a case study explain the environmental impacts of extracting and using (7) CO5 [K₃]
mineral resources

22. (i) “Fertilizers and pesticides not only increases the yield but also influences the environment and human health” – justify (7) CO5 [K₃]
- (ii) Discuss the role of an individual in conserving the natural resources for achieving sustainability (7) CO5 [K₂]
23. (i) Describe the biotic and abiotic structure and important functions of an forest ecosystem with the help of food chains and food webs (7) CO3 [K₂]
- (ii) Identify the major threats to western ghats’ biodiversity and describe the conservation techniques followed to save biodiversity (7) CO3 [K₃]
24. (i) Analyse the characteristics, effects and mitigation of textile industrial effluents discharged in water bodies (7) CO2 [K₄]
- (ii) Elaborate the actions that need to be taken in the event of a cyclone threat to avoid the loss of properties and lives (7) CO2 [K₂]
25. (i) Describe the mechanism, health and environmental effects of ozone layer depletion (7) CO4 [K₃]
- (ii) Discuss the issues involved in the enforcement of environmental legislation in India (7) CO4 [K₂]
26. (i) Illustrate the distribution of various age groups of a population among most populous countries and predict the population growth using population pyramids (7) CO6 [K₃]
- (ii) Analyze the role of information technology in the field of environment and human health (7) CO6 [K₄]
27. (i) Discuss the suitable methods to dispose the solid waste generated in textile industries (7) CO1 [K₃]
- (ii) With a case study discuss the problems associated with resettlement and rehabilitation of people (7) CO1 [K₃]
