# AR13

**CODE: 13HS1003** **SET-1**

**ADITYA INSTITUTE OF TECHNOLOGY AND MANAGEMENT, TEKKALI**
**(AUTONOMOUS)**

**I B.TECH II SEM SUPPLEMENTARY EXAMINATIONS, APRIL, 2017**

**ENVIRONMENTAL STUDIES**
**(Common to CE, ME,CSE, IT)**

**Time: 3 Hours** **Max Marks: 70**

**PART-A**

**ANSWER ALL QUESTIONS** **[1 x 10 = 10 M]**

1. a) Lithosphere
   b) Dredging
   c) Biogeochemical cycle
   d) Hot Spot
   e) Electrostatic precipitator
   f) Decibel
   g) Water shed
   h) Extended Green House Effect
   i) Urban sprawl
   j) Demographic transition

**PART-B**

**Answer one question from each unit** **[5x12=60M]**

**UNIT-I**

2. a. Enumerate the various components of "Environment" and briefly state the inter-relationships among them with a neat illustration. 6M
   b. Discuss two major types of Soil Erosion and explain any three methods of soil conservation 6M

(OR)

3. a. What are Ecological Pyramids? Explain the Pyramid of Energy with an appropriate example. 6M
   b. Explain two significant uses each of any three renewable energy resources 6M

**UNIT-II**

4. a. Discuss the stratification of a lake ecosystem with a neat, labelled illustration 6M
   b. Explain the concept of 10% Law with respect to the flow of energy from producers to consumers 6M

(OR)

5. a. Describe the consumptive and productive values of Biodiversity with suitable examples 6M
   b. How do you justify the declaration of India as a mega diversity nation? 6M

**UNIT-III**

6. a. Discuss the major causes, effects and control of marine pollution 6M
   b. Explain the major steps of waste water treatment with a flow chart. 6M

(OR)

7. a. What are natural disasters? State any four major functions of disaster mitigation centers. 6M
   b. Describe any three methods of safe disposal of solid wastes. 6M

**UNIT-IV**

8. a. Define EIA. Briefly explain the steps in the process of EIA. 6M
   b. State the salient features of Forest conservation act, 1980. 6M

(OR)

9. a. Discuss the causes, effects and control of Global warming 6M
   b. Explain the mechanisms of Kyoto Protocol. 6M

**UNIT-V**

10. a. What is a database? State briefly the major objectives of ENVIS. 6M
    b. Highlight any four areas reflecting the importance of Environmental education. 6M

(OR)

11. a. Explain the role of IT in Environment. 6M
    b. Explain the term "Health" as outlined by WHO. Give a gist of any four environmental factors affecting human health. 6M

# AR13

**Code: 13CS1001** **SET-2**

**ADITYA INSTITUTE OF TECHNOLOGY AND MANAGEMENT, TEKKALI**
**(AUTONOMOUS)**

**I B.Tech. II Semester Supplementary Examinations, APRIL, 2017**

**COMPUTER PROGRAMMING**
**(Common to EEE & ECE)**

**Time: 3 Hours** **Max Marks: 70**

## PART – A

**Answer all questions** **[10 x 1=10M]**

1. a) Define high level language? Give examples?
   b) Define conditional operator with example?
   c) Define switch statement with its general form?
   d) How arrays are different from strings?
   e) Define call by reference in C?
   f) Define dynamic memory management? List the functions of dynamic memory management?
   g) Define self referential structures?
   h) How does fprintf and fscanf statements differ from printf and scanf in C?
   i) Write the output for the following code?

```
#include<stdio.h>
int main(){
int i,j;
i=j=2,3;
while(--i&&j++)
printf("%d %d",i,j);
return 0;
}
```

   j) What are bit fields?

## PART-B

**Answer one question from each unit** **[5 x 12=60M]**

## UNIT-I

2. a) Define an algorithm and a flowchart? Write an Algorithm and draw a flowchart to find out whether a given number is prime (or) not?
   b) What is the importance of C?

**(OR)**

3. a) Explain in detail about the various data types in C language.
   b) Write about constants used in C language with examples?

**UNIT-II**

4. a) Explain about if, if..else, nested if and else..with its syntax.
   b) Write a program to determine whether or not a given year is a leap year?

**(OR)**

5. a) Write a C Program to calculate the sum of N terms of the following series: $1^2+2^2+3^2+4^2+\ldots\ldots\ldots\ldots\ldots\ldots+n^2$
   b) Write about break and continue statements with example programs?

**UNIT-III**

6. a) Write a program to subtract two 3x3 matrices using arrays?
   b) Explain about string handling functions with an example programs.

**(OR)**

7. What is a function? Explain the categories of functions with examples?

**UNIT-IV**

8. a) Define a structure? Explain in detail about structures within structures with an example program ?
   b) Write a program to illustrate the use of structure pointers?

**(OR)**

9. a) Write a 'C' program to illustrate the use of pointers in arithmetic operations?
   b) Write a program using pointers to determine the length of a character string?

**UNIT- V**

10. a) Define a file and discuss about reading, opening and closing of a file?
    b) Write about getc and putc statements with example program?

**(OR)**

11. a) Write about command line arguments?
    b) Write a program to open a file using command line arguments and display its contents.



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