

**COMPUTER PROGRAMMING
(Common to CE, ME, CSE & IT Branches)****Time: 3 Hours****Max Marks: 70M**

Answer ONE Question from each Unit

All Questions Carry Equal Marks

All parts of the question must be answered in one place only

UNIT-I

1. a) Define flowchart? What are the symbols used in flowchart? Draw a flowchart to check whether a given number is positive or negative. [7 M]
b) What is data type? Explain different types of data type along with their ranges in C. [7 M]

(OR)

2. a) Explain about increment operator and relational operator with an example program. [7 M]
b) What is the need of computer language? Discuss about various computer languages. [7 M]

UNIT-II

3. a) Write the general form of for loop. Write a C program to evaluate sum of square of first n natural numbers using for loop. [7 M]
b) Write about goto, break and continue statement with suitable example. [7 M]

(OR)

4. a) Write a C program to check whether a number is palindrome or not using while loop. [7 M]
b) What is nested if statement? Write its syntax and draw its flow chart. Explain it with an example. [7 M]

UNIT-III

5. a) Write a C program to find multiplication of two matrix using array. [7 M]
b) What is Recursion function? Write a C program to find our factorial of a number using Recursion. [7 M]

(OR)

6. a) What is a function? How will you pass one array inside a function? Explain with an example. [7 M]
b) Explain about different storage classes in C. [7 M]

UNIT-IV

7. a) Define a pointer. Discuss about declaration and initialization of pointer variables with suitable programs. [7 M]
b) What do you mean by nested structure? Explain it with a program. [7 M]

(OR)

8. a) Explain array of structures with a suitable program. [7 M]
b) How will you access elements of two dimensional array using pointer? Write a C program to display the elements of two dimensional array using pointer. [7 M]

UNIT-V

9. a) Write the different file handling functions in C. Write down the modes in which a file can be opened. [7 M]
b) Write a C program to copy the contents of one file into another.. [7 M]

(OR)

10. a) Write syntax of fread(), fwrite() and ftell() functions. Discuss about the uses of these function with suitable example. [7 M]
b) Write a c program to count number of positive and negative numbers present in a given text file. [7 M]

AR16

CODE: 16HS1003

SET-2

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

I B.Tech I Semester Supplementary Examinations, March-2017

ENVIRONMENTAL STUDIES

(Common to EEE & ECE Branches)

Time: 3 Hours

Max Marks: 70M

Answer ONE Question from each Unit

All Questions Carry Equal Marks

All parts of the question must be answered in one place only

UNIT-I

- | | | | |
|----|---|--|-----|
| 1. | a | Write an explanatory note on multidisciplinary nature of environmental science | 7 M |
| | b | What is deforestation Enumerate and discuss various causes for it | 7 M |

(OR)

- | | | | |
|----|---|---|-----|
| 2. | a | What are the measures recommended for conservation of natural resources | 6 M |
| | b | Write a detailed note on renewable resources | 8 M |

UNIT-II

- | | | | |
|----|---|--|-----|
| 3. | a | Write a short note on ecological pyramids and threats to biodiversity | 8 M |
| | b | Explain in-situ and ex-situ approaches to conservation of biodiversity | 6 M |

(OR)

- | | | | |
|----|---|--|-----|
| 4. | a | Write the functions and structure of grass land ecosystem | 7M |
| | b | What is biodiversity? Explain the classification of biodiversity in detail | 7 M |

UNIT-III

- | | | | |
|----|---|---|-----|
| 5. | a | Define the term environmental pollution? Discuss causes, effects and control of water pollution | 8 M |
| | b | Explain the methods of disposal of solid waste | 6M |

(OR)

- | | | | |
|----|---|--|-----|
| 6. | a | What are the sources of marine pollution and explain effects and control of it | 8 M |
| | b | Write a detailed note on any one natural disaster | 6 M |

UNIT-IV

- | | | | |
|----|---|---|-----|
| 7. | a | What are the strategies and methods of water conservation | 6 M |
| | b | Discuss the air (prevention and control act) 1981 | 8 M |

(OR)

- | | | | |
|----|---|---|-----|
| 8. | a | Define the term watershed management? Write the advantages and factors effecting watershed management | 8 M |
| | b | Write a note on ozone layer depletion | 6 M |

UNIT-V

- | | | | |
|----|---|---|-----|
| 9. | a | Explain the characteristics of population growth | 6 M |
| | b | Prepare a report on your field work while visiting polluted site in industrial area | 8 M |

(OR)

- | | | | |
|-----|---|--|-----|
| 10. | a | Discuss how IT helpful to improve human health and environment | 8 M |
| | b | Define the population explosion and explain causes for it | 6 M |

PART-A

ANSWER ALL QUESTIONS

[1 x 10 = 10 M]

1. a) Write an algorithm to print the sum of three numbers?
b) Define Token in C.
c) What is Conditional Operator? Give an example.
d) Differentiate between break and continue statements.
e) Define structure?
f) How is two dimensional Arrays represented?
g) What is Pointer?
h) Describe the union.
i) What are Bit-wise Operators?
j) List the different types of Random Access file Functions.

PART- B

Answer one question from each unit

[5X12=60M]

UNIT - I

- 2) a) Explain about the Problem Solving steps in detail. **[5M]**
b) Define Flowchart. Draw a flowchart to print the largest of three numbers. **[2M+5M]**

(OR)

- 3) a) Define Expression in C. Explain about the different types of expressions with examples.
b) Explain about the Operators used in C with examples. **[4M+8M]**

UNIT - II

- 4) a) Explain about if and if-else statements in C with examples.
b) Write a program to print the roots of a Quadratic equation. **[7M+5M]**

(OR)

- 5) a) What are while and do-while loops in C? Explain in detail
b) Write a program to find sum of digits of given number **[6M+6M]**

UNIT - III

- 6) a) Define Block Structure Programming. Explain with an example.
b) What is a recursion? Write a recursive program to find the LCM of a given two numbers? **[6M+6M]**

(OR)

- 7) a) What is an Array? How is it declared, initialized, accessed and processed? Explain with an example.
b) Write a program to print the Transpose of a given Matrix. **[7M+5M]**

UNIT - IV

- 8) a) What are call by value and call by reference? Explain with examples.
b) Write a program to find the swapping of two numbers **[6M+6M]**

(OR)

- 9) a) Explain the following.
i) Structure within Structure ii) Self-referential Structure.
b) What are Bit-fields? Explain in detail with an example. **[6M+6M]**

UNIT - V

- 10) a) Define a File. Explain about the FILE structure.
b) Explain about C Pre-Processors with examples. **[7M+5M]**

(OR)

- 11) a) Explain about File I/O operations with examples.
b) Write a program to copy the contents of a file in to another. **[7M+5M]**

CODE: 13HS1003 **SET-2**
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(AUTONOMOUS)
I B.Tech I Semester Supplementary Examinations, March-2017
ENVIRONMENTAL STUDIES
(Common to EEE & ECE)

Time: 3 Hours**Max Marks: 70****PART-A****ANSWER ALL QUESTIONS****[1 x 10 = 10 M]**

1. a) Wangari maathai
- b) Water logging
- c) Biological oxygen demand
- d) Psammosere
- e) Endemic species
- f) Poaching
- g) EL-Nino phenomena
- h) Ozone hole
- i) Total fertility rate
- j) Doubling time

PART-B**Answer one question from each unit****[5x12=60M]****UNIT-I**

2. (a) What is the scope of environmental studies? **6 M**
- (b) Describe the structure of atmosphere with neat diagram. **6 M**
- (OR)**
3. (a) Define non-renewable energy resources and explain about them. **6 M**
- (b) Discuss the major environmental impacts of mineral extraction. **6 M**

UNIT-II

4. (a) What are ecological pyramids and explain the various types of ecological pyramids. **4 M**
- (b) What is the food chain and discuss the food chains with examples. **4 M**
- (c) Explain the carbon cycle with neat and labelled diagram. **4 M**
- (OR)**
5. (a) Explain the bio geographical classification of India. **6 M**
- (b) What is red-data book and explain the different categories of red-data book. **3 M**
- (c) cryopreservation **3 M**

UNIT-III

6. (a) Define water pollution and write the causes and effects of water pollution. **6 M**
- (b) Discuss various sources of marine pollution and what are the remedial measures to control marine pollution are. **6 M**
- (OR)**
7. (a) Define radioactivity and discuss the various sources and effects of radioactivity. **6 M**
- (b) Explain the sources and effects of soil pollution. **6 M**

UNIT-IV

8. (a) Sustainable development. **4 M**
- (b) Resettlement and rehabilitation. **4 M**
- (c) Urban problems related to energy. **4 M**
- (OR)**
9. (a) Acid rain. **4 M**
- (b) Discuss the measures to conserve water. **4 M**
- (c) Salient features of air act. **4 M**

UNIT-V

10. (a) Define health and bring out various environmental health problems to human **6 M**
- (b) Give a detailed note on population variations among nations. **6 M**
- (OR)**
11. (a) How would you prevent water pollution impact in local areas? **4 M**
- (b) What are the components of lake ecosystems during your field visit? **4 M**
- (c) Give some suggestions to protect aquatic birds from the polluted environment. **4 M**