

ENGLISH**(Common to CE, CSE, IT Branches)****Time: 3 Hours****Max Marks: 60**

Answer ONE Question from each Unit

All Questions Carry Equal Marks

All parts of the Question must be answered at one place

UNIT-I

1. a) Why did Swami not want to go to school? What was his parents' reaction? **6M**
b) Write the synonyms for the words given below **6x1=6M**
i) Shudder ii) Wailed iii) Proposed iv) Apprehensive v) Allegation vi) guilty
- (OR)**
2. a) Describe the attempts made by Swami to irritate his teacher Samuel and make him lose his temper. **6M**
b) Write one-word substitutes for the following expressions. **6x1=6M**
i. A government by the rich
ii. Fear of heights
iii. One who is a charismatic speaker.
iv. One who cannot be defeated.
v. One who is Present everywhere.
vi. One who hates women.

UNIT-II

3. a) What is the message that Kalam's autobiographical story 'My Early Childhood' convey. Discuss. **6M**
b) Fill in the blanks with appropriate verb forms. **6x1=6M**
i. Last night, the clouds _____ (thunder) in the sky.
ii. Each of the applicants _____ (be) interviewed by the panel.
iii. Fog _____ (delay) the flight by almost four hours.
iv. He _____ (take after) his Paternal grandfather.
v. The bridge across the river _____ (build) some two hundred years ago.
vi. The officer _____ (catch) taking bribe red-handed.
- (OR)**
4. a) Elucidate the character of Kalam from your reading of the story, 'My Early Childhood' **6M**

- b) Rewrite / Convert the following as directed. **6x1=6M**
- i. Very few countries are as large as China. (into Comparative sentence)
 - ii. The award winning writer wrote a book on terror attacks (into Passive voice)
 - iii. We believe that he is innocent. (into simple sentence)
 - iv. A gypsy who was wandering across the fields found the baby. (into simple sentence)
 - v. My country cousin is very innocent and needs guidance. (with 'so...that')
 - vi. Javeda is a very beautiful girl she is always sick. (with 'Although')

UNIT-III

5. a) According to Orwell, "Political language is disguised to make lies sound truthful and murder respectable and to give an appearance of solidity to pure wind." Explain. **6M**
- b) Correct the following sentences in connection with subject-verb agreement / noun- pronoun agreement / misplaced modifiers / articles / redundancies. **6x1=6M**
- i. After jumping out of the boat the shark killed the man.
 - ii. People are never happy with the existing RAM memory of their computers.
 - iii. One should always love his country and his parents.
 - iv. Having failed the students the VC ordered for re-exam.
 - v. Neither the officers nor the director were present at the ceremony.
 - vi. I want you to spare one month only on this project.

(OR)

6. a) Discuss Orwell's views on using hackneyed, imagery and prefabricated phrases. **6M**
- b) Fill in the blanks with suitable words **6x1=6M**
- It was a Saturday afternoon. Mr. and Mrs Kerugesu were window shopping at a mall. As they stood outside a boutique, Mr. Kerugesu saw a shiny new weighing machine.
- "Look! It's ___1___ of those modern computerized machines that tells your weight and gives you your fortune at the ___2___ time. I think I shall try it," he told his wife. Mrs Kerugesu, however, was not too keen ___3___ the idea. "Let's not bother," she said.
- Mr. Kerugesu, however, insisted ___4___ trying the machine. He stepped on the machine and dropped a fifty cent coin. There was a soft buzzing sound ___5___ from the machine. A few seconds later, a slip of paper emerged. Mrs. Kerugesu took the slip and read it out ___6___ her husband :

Your fortune: You are a clever and talented person. If you are

working, you will become an employee that every boss would be proud of. You will become a good leader of men. Everyone will listen to you when you speak. Wherever you lead, everyone will follow."

Mrs. Kerugesu paused for breath. "It's got your weight wrong too," she added.

UNIT-IV

7. a) Compare and contrast the benevolence of King Govind and the priest Raghupati **6M**
b) You are the purchase manager of your company. Write a letter to the scientific equipment company seeking explanation about the delay in delivery of the equipment and also about the damaged conditions. **6M**
- (OR)**
8. a) Which religious controversy was depicted and highlighted in Tagore's *Sacrifice*. Discuss. **6M**
b) You are the branch manager of your company. Send an Email to all your employees informing them about the decision taken by the management to celebrate every Friday as ethnic day. So all the employees are to come in traditional attire. **6M**

UNIT-V

9. a) Write a critical analysis of Frost's poem '*Stopping by Woods on A Snowy Evening*' **6M**
b) Read the given passage and answer the question below. **6x1=6M**
- Marie Curie was one of the most accomplished scientists in history. Together with her husband, Pierre, she discovered radium, an element widely used for treating cancer, and studied uranium and other radioactive substances. Pierre and Marie's amicable collaboration later helped to unlock the secrets of the atom.
- Marie was born in 1867 in Warsaw, Poland, where her father was a professor of physics. At an early age, she displayed a brilliant mind and a blithe personality. Her great exuberance for learning prompted her to continue with her studies after high school. She became disgruntled, however, when she learned that the university in Warsaw was closed to women. Determined to receive a higher education, she defiantly left Poland and in 1891 entered the Sorbonne, a French university, where she earned her master's degree and doctorate in physics.
- Marie was fortunate to have studied at the Sorbonne with some of the greatest scientists of her day, one of whom was Pierre Curie. Marie and Pierre were married in 1895 and spent many productive years working together in the physics laboratory. A short time after they discovered radium, Pierre was killed by a horse-drawn

wagon in 1906. Marie was stunned by this horrible misfortune and endured heartbreaking anguish. Despondently she recalled their close relationship and the joy that they had shared in scientific research. The fact that she had two young daughters to raise by herself greatly increased her distress.

Curie's feeling of desolation finally began to fade when she was asked to succeed her husband as a physics professor at the Sorbonne. She was the first woman to be given a professorship at the world-famous university. In 1911 she received the Nobel Prize in chemistry for isolating radium. Although Marie Curie eventually suffered a fatal illness from her long exposure to radium, she never became disillusioned about her work. Regardless of the consequences, she had dedicated herself to science and to revealing the mysteries of the physical world.

i) The Curies' _____ collaboration helped to unlock the secrets of the atom.

A. friendly B. competitive C. courteous D. industrious E. chemistry

ii) Marie had a bright mind and a _____ personality.

A. strong B. lighthearted C. humorous D. strange E. envious

iii) When she learned that she could not attend the university in Warsaw, she felt _____.

A. hopeless B. annoyed C. depressed D. worried E. None of the above

iv) _____ she remembered their joy together.

A. Dejectedly B. Worried C. Tearfully D. Happily E. Irefully

v) Her _____ began to fade when she returned to the Sorbonne to succeed her husband.

A. misfortune B. anger C. wretchedness D. disappointment E. ambition

vi) Even though she became fatally ill from working with radium, Marie Curie was never _____.

A. troubled B. worried C. disappointed D. sorrowful E. disturbed

(OR)

10. a) What is the conflict that arises in the mind of the poet when he sees the beauty of the woods on a snowy evening? How does the poet resolve it? **6M**
- b) Write an essay on 'Technology should be a loyal servant to man but it is turning into a demon that controls mankind.' **6M**

AR18

CODE: 18EST101

SET-2

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

I B.Tech I Semester Regular Examinations, November, 2018

**BASIC ELECTRICAL ENGINEERING
(Common to EEE, ME, ECE Branches)**

Time: 3 Hours

Max Marks: 60

Answer ONE Question from each Unit

All Questions Carry Equal Marks

All parts of the Question must be answered at one place

UNIT-I

1. a) State and explain KVL and KCL. 6M
- b) Determine the current through each resistor of the circuit shown in Fig.1. 6M
And also find the power absorbed by 3 ohm resistor.

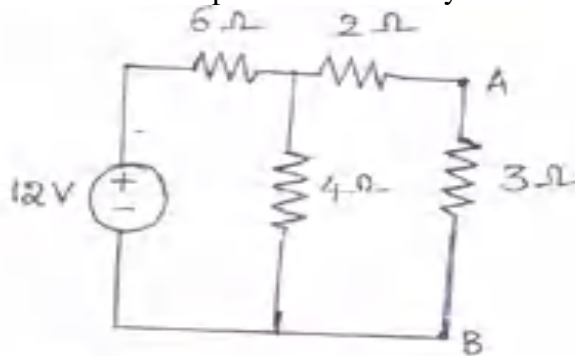


Fig.1

(OR)

2. a) List out the different types of circuit elements and explain the voltage - current relation in them. 6M
- b) Using Kirchhoff's laws, find the current in various resistors in the circuit shown in Fig.2. 6M

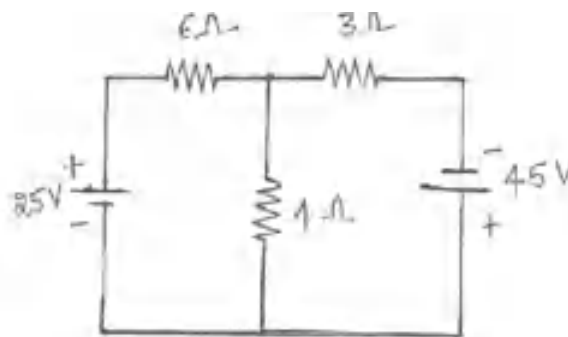


Fig.2

UNIT-II

3. a) Define average value, RMS value, form factor, peak factor of an alternating quantity. 6M
- b) Derive the expression for power in a single-phase AC circuit containing R – L elements in series. 6M

(OR)

4. a) Define the following (i) impedance (ii) reactance (iii) power factor 6M
- b) A $20\ \Omega$ resistance and 30 mH inductance are connected in series and the circuit is fed from a 230 V, 50 Hz AC supply. Find i) Reactance across the inductance, impedance, current ii) Voltage across the resistance iii) Voltage across the inductance iv) Real, reactive and active powers. 6M

UNIT-III

5. a) Draw the neat diagram of constructional details DC machine and explain each part. 8M
- b) An 8-pole lap wound dc generator has 960 conductors, a flux of 40 milliweber and is driven at 400 rpm. Find the induced emf. 4M

(OR)

6. a) Derive the E.M.F equation of a DC generator. 4M
- b) A shunt generator supplies 96A at a terminal voltage of 200V. The armature and shunt field resistances are $0.1\ \Omega$ and $50\ \Omega$ respectively. The iron and frictional losses are 2500W. Find (i) emf generated (ii) Efficiency. 8M

UNIT-IV

7. a) Explain O.C and S.C test on 1- \emptyset transformer 8M
- b) An ideal transformer has a turn ratio of 100/300. The L.V. winding is connected to a source of 3300V, 50Hz. A resistive load of $100\ \Omega$ is connected across the secondary terminals. Calculate (i) the value of maximum core flux (ii) the primary and secondary currents. 4M

(OR)

8. a) Derive EMF equation of a single-phase transformer. 6M
- b) A 40 KVA, 3300/240 –V, 50 Hz, 1- phase transformer has 660 turns on the primary. Determine (i) the number of turns on the secondary (ii) the maximum value of flux in the core (iii) the approximate value of primary and secondary full load currents. 6M

UNIT-V

9. a) Explain speed torque characteristics of 3- \emptyset induction motor 6M
- b) Explain principle and operation of 3- \emptyset induction motor 6M
- (OR)**
10. a) Give the difference between slip ring and squirrel cage induction motor. 4M
- b) Explain the constructional features of three phase induction motor. 8M

AR16

CODE: 16CS1001

SET-2

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

I B.Tech I Semester Supplementary Examinations, November- 2018

COMPUTER PROGRAMMING
(Common to CE, ME, CSE & IT Branches)

Time: 3 Hours

Max Marks: 70

Answer ONE Question from each Unit

All Questions Carry Equal Marks

All parts of the Question must be answered at one place.

UNIT-I

1. a) Explain in detail about Operators in C? 7
b) Differentiate between Machine, Assembly and High-level languages? 7
(OR)
2. a) Explain about structure of C Program? 7
b) What is a flowchart and write about the symbols used in flowchart? Draw a flowchart for finding maximum of three numbers? 7

UNIT-II

3. a) Write about switch statement with suitable example in C? 7
b) Explain the differences between break and continue with an example? 7
(OR)
4. a) Write a C program to evaluate sum of first n natural numbers using while loop? 7
b) Differentiate between while, do-while and for loop with simple examples in C? 7

UNIT-III

5. a) Define array? Explain about various types of arrays in C? 7
b) Explain parameter passing in C with example? 7
(OR)
6. a) Write a C program for addition of two Matrices? 7
b) Explain in detail about storage classes in C? 7

UNIT-IV

7. a) Write a short note on pointers in C? 7
b) Explain in detail about accessing of structure members with examples? 7
(OR)
8. a) Write a note on dynamic memory allocation? 7
b) Write about declaration and initialization of pointer variables with suitable examples 7

UNIT-V

9. a) Explain in detail about input/output operations on files? 7
b) Write about modes of files with an example? 7
(OR)
10. a) Explain in detail about file handling strategies in C? 7
b) Write a note on various operations on files in C? 7

AR16

CODE: 16HS1003

SET-2

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

I B.Tech I Semester Supplementary Examinations, November- 2018

**ENVIRONMENTAL STUDIES
(Common to EEE & ECE Branches)**

Time: 3 Hours

Max Marks: 70

Answer ONE Question from each Unit

All Questions Carry Equal Marks

All parts of the Question must be answered at one place

UNIT-I

1. a) What are the different methods to propagate environmental awareness in the society? Explain. 7M
- b) Differentiate between renewable and non-renewable resources. Briefly write a note on solar energy. 7M

(OR)

2. a) Name the natural resources. Explain as an individual how you will conserve natural resources. 6M
- b) Discuss the major causes and consequences of deforestation. 8M

UNIT-II

3. a) Write about the biotic and abiotic structural features of an ecosystem. 7M
- b) Discuss in detail about in-situ conservation of biodiversity. 7M

(OR)

4. a) Discuss the characteristic features of an aquatic ecosystem with an example. 7M
- b) Write short notes on (i) Consumptive use value (ii) Productive use value (iii) Ethical value 7M

UNIT-III

5. a) Describe in detail the causes, effects and control of marine pollution. 8M
- b) Write notes on (i) Earthquakes (ii) Cyclones and (iii) Floods 6M

(OR)

6. a) How can individual levels of effort is required to prevent environmental pollution? Discuss. 7M
- b) What do you mean by '3R' principle in waste management? Explain them in brief. 7M

UNIT-IV

7. a) Discuss the major causes and consequences of enhanced global warming. 8M
- b) Write short notes on (i) Acid Rains (ii) Ozone layer depletion 6M

(OR)

8. a) Explain in brief about Stockholm conference and its objectives. 6M
- b) Discuss the salient features of (i) Water (Prevention and control of Pollution) Act (ii) Forest (Conservation) Act. 8M

UNIT-V

9. a) Write notes on (i) Doubling time (ii) Total fertility rate (iii) Life expectancy 8M
- b) Discuss the observations about a polluted site in your region and suggest measures to control the pollution. 6M

(OR)

10. a) What is meant by Population Explosion? Discuss the Indian scenario. 7M
- b) Write a detailed report on women and child welfare at national and International level. 7M

AR13

CODE: 13CS1001

SET-2

ADITYA INSTITUTE OF TECHNOLOGY AND MANAGEMENT, TEKKALI
(AUTONOMOUS)

I B.Tech I Semester Supplementary Examinations, November- 2018

COMPUTER PROGRAMMING
(Common to CE, ME CSE & IT)

Time: 3 Hours

Max Marks: 70

PART-A

ANSWER ALL QUESTIONS

[1 x 10 = 10 M]

1. a) What is the output for the following code:

```
main()
{
int i=10;
printf(“%d%d”,i++,++i);
}
```

- b) What is type casting? Give example
c) Write the difference between if-else and switch statement.
d) What is the output of following code:

```
main()
{
int i;
for(i=0;i<5;i++)
printf(“%d”,i);}
```

- e) Define function.
f) Define pointer.
g) Define recursion. .
h) Can we have nested unions? Justify
i) What are file handling modes while opening in binary files?
j) Write the difference between macro and a function.

PART-B

Answer one question from each unit

[5x12=60M]

UNIT-I

2. a) Explain different types of Float data types with suitable examples. **6M**

- b) Define flow chart explain different symbols of flow chart **6M**

(OR)

3. a) Explain Conditional and Relational operators with suitable examples. **6M**
b) Explain automatic type casting rules and draw the chart. **6M**

UNIT-II

4. a) Write a program to generate Fibonacci series upto n terms using do-while loop. **6M**
b) Explain for loop with suitable example. **6M**

(OR)

5. a) Write a program to check given number is Armstrong number or not **6M**
b) Explain nested if statement with suitable example. **6M**

UNIT-III

6. a) Explain about automatic and static storage classes. **6M**
b) Write a recursive function to find the factorial of a given number. **6M**

(OR)

7. a) Explain 1D imentional arrays with example. **6M**
b) Write a program to find the transpose of given matrix. **6M**

UNIT-IV

8. a) Write a program to copy one string into another string. **6M**
b) Explain about malloc() and calloc() functions with examples. **6M**

(OR)

9. a) Define structure with suitable example. **6M**
b) Differentiate between structure and union. **6M**

UNIT-V

10. a) Explain the following file operations with suitable examples: getc(), fgets(), rewind(). **6M**
b) Write a program to display the characters in a given file. **6M**

(OR)

11. a) Explain macro substitution and include directives with examples. **6M**
b) How to open a file in different modes and closing the file? **6M**

AR13

CODE: 13HS1003 **SET-1**
ADITYA INSTITUTE OF TECHNOLOGY AND MANAGEMENT, TEKKALI
(AUTONOMOUS)

I B.Tech I Semester Supplementary Examinations, November- 2018
ENVIRONMENTAL STUDIES
(Common to ECE, EEE)

Time: 3 Hours

Max Marks: 70

PART-A

ANSWER ALL QUESTIONS

[1 x 10 = 10 M]

1. a) Define environment
b) Lithosphere
c) Overgrazing
d) Decomposers
e) Food chain
f) Hot spots
g) Define biodiversity
h) Different of pollution
i) Sustainability
j) Zero population growth

PART-B

Answer one question from each unit

[5x12=60M]

UNIT-I

2. (a) Differentiate between renewable and non-renewable resources 4M
(b) List out the names of natural resources and discuss about forest resources 8M

(OR)

3. (a) Why is environmental studies considered as a multi-disciplinary subject? 6M
(b) Explain briefly about scope of environmental studies 6M

UNIT-II

4. (a) Define ecosystem. Write a note on producers, consumers and decomposers of an ecosystem in detail. 6M
(b) Discuss the process of ecological succession 6M

(OR)

5. (a) Explain briefly about values of biodiversity 6M
(b) Discuss the features of India as a mega-diversity nation 6M

UNIT-III

6. (a) List out the types of environmental pollution 2M
(b) What are the main sources of air pollution? Discuss its effects and control measures 10M

(OR)

7. (a) What is Hazardous Waste? Discuss various methods of safe disposal of these wastes 6M
(b) Discuss some methods to dispose-off the nuclear waste effectively 6M

UNIT-IV

8. (a) Elaborate climate change and global warming. 6M
(b) Explain briefly about ozone layer depletion 6M

(OR)

9. (a) Discuss different measures to conserve water? 7M
(b) What is water shed? Discuss the objectives of watershed management? 5M

UNIT-V

10. (a) Explain the causes and effects of air pollution by describing any urban or industrial area that you have studied during field visit 8M
(b) Explain about history of population trend with neat sketch 4M

(OR)

11. (a) What are the parameters that effect on population growth and explain each in detail 8M
(b) Explain briefly about demographic transition. 4M