AR18

CODE: 18CET101   **SET-1**

ADITYA INSTITUTE OF TECHNOLOGY AND MANAGEMENT, TEKKALI
(AUTONOMOUS)
I B.Tech II Semester Regular/Supplementary Examinations, November-2020
BUILDING MATERIALS
(Civil Engineering)

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)	Discuss physical and chemical classification of rocks.	6 M
	b)	Explain Attrition and water absorption tests for stones.	6 M
		(OR)	
2.	a)	What are the various methods of quarrying of stones? Explain each of them briefly.	6 M
	b)	Write the all Safety precautions in Blasting at stone quarrying process.	6 M

UNIT-II

3.	a)	Discuss the classification of trees according to the mode of growth.	8 M
	b)	Describe the structure of timber	4 M
		(OR)	
4.	a)	What are the impurities in limestone? Explain.	8 M
	b)	Explain in detail the classification of burnt bricks.	4 M

UNIT-III

5.	a)	Explain the importance of Bogue compounds in cement.	8 M
	b)	What is soundness of cement? how it is determined in laboratory?	4 M
		(OR)	
6.	a)	What is meant by curing of concrete? Explain different methods of curing.	6 M
	b)	Discuss various laboratory tests to be conducted on concrete.	6 M

UNIT-IV

7.	a)	Describe various uses of steel and market available Forms.	8 M
	b)	Explain the properties of galvanized iron.	4 M
		(OR)	
8.	a)	Differentiate between ferrous metals and alloys?	6 M
	b)	Define corrosion and discuss the factors influencing the corrosion.	6 M

UNIT-V

9.	a)	Describe the different types of paintings and its properties?	8 M
	b)	What is a varnish and why is it used?	4 M
		(OR)	
10.	a)	Define Plastic and list the compositions of plastic manufacturing.	6 M
	b)	Explain the application of GFRP in concrete industry.	6 M

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CODE: 18HST101   **SET-1**

ADITYA INSTITUTE OF TECHNOLOGY AND MANAGEMENT, TEKKALI
(AUTONOMOUS)
I B.Tech II Semester Regular/Supplementary Examinations, November-2020
ENGLISH
(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) R.K.Narayan's '*Father's help*' depicts the psychology of a school-going child in an elaborate manner. Justify the statement in your own words.   6M

   b) Write one-word substitutes for the following expressions.   6M
      i) The study of rocks and soils
      ii) One who is all powerful
      iii) One who treats skin ailments
      iv) That which sets on fire easily
      v) Pertaining to heart
      vi) Spoken or written in two languages

   (OR)

2. a) Present the Summary of R.K.Narayan's *Father's Help.*   6M
   b) Write meanings for the following idiomatic expressions.   6M
      i) Add fuel to fire
      ii) An up-hill task
      iii) To beat about the bush
      iv) To come out in flying colours
      v) At the eleventh hour
      vi) Look into

UNIT-II

3. a) Analyse how Kalam's early influences paved a way for a strong foundation to become the missile man of india.   6M
   b) Fill in the blanks with appropriate verb forms.   6M
      i) Have you ever .... (be) to Canada?
      ii) I am tired of ..... (work) here.
      iii) They would have won if they ..... (play) better.
      iv) If you .....(sleep) more, you would't be so tired.
      v) My Aunt .....(walk) in the park when I met her.
      vi) He will come as soon as he .....(hear) the news.

   (OR)

4. a) Describe in detail the social, economic and financial conditions prevailing at that time and analyse how they shaped Kalam as a complete individual.   6M
   b) Rewite sentences as directed.   6M
      i) Being lazy, he stayed indoors. (Change it into compound sentence)
      ii) She says that the flower is smelling sweet. (Correct the sentence)
      iii) Please post the letter. (Change the voice)
      iv) He said, "Hurrah! We have won the match." (Change it into indirect speech)
      v) Several countries participated in the airlift, Italy,Belgium, France, and Luxemberg. (Correct the sentence)
      vi) Kashmir is more beautiful than Kanya Kumari. (Change it into positive degree)

5. a) Analyse Goerge Orwell's ideas about the function of the English language.   6M
    b) Correct the following sentences in connection with subject-verb agreement / noun-   6M
        pronoun agreement / misplaced modifiers / articles / prepositions/ redundancies.
        i)   Ten thousand miles are a long distance.
        ii) One must do his duty.
        iii) He does not agree to me.
        iv) Mr.Raj returned back from Delhi.
        v)   Kashmir is Switzerland of India.
        vi) Sam asked me to go for a ride on the telephone.

(OR)

6. a) Discuss the major argument that Orwell uses in order to convince the readers   6M
        regarding the use of language for communication.
    b) Fill in the blanks with appropriate prepositions.   6M
        i)   Always come ....class....time.
        ii) You must abide....the rules.
        iii) The work must be finished ....the end of the week.
        iv) Don't deprive him....his rights.
        v)   The astrologer caught a glimpse...him.

UNIT-IV

7. a) Write a critical summary of Tagore's play, '*Sacrifice.'*   6M
    b) Write a letter to the Principal of your college seeking permission to organize a   6M
        one-day cultural event .

(OR)

8. a) Discuss how Tagore portrayed God in the play , '*Sacrifice.'*   6M
    b) Write an email to a local newspaper, requesting them to publish an article to create   6M
        awareness on 'Blood donation and its importance.'

UNIT-V

9. a) Interpret the significance of 'sleep' in the poem, *Stopping by woods on a snowy*   6M
        evening and justify your response.
    b) Draft an essay on 'importance of travel in one's life.'   6M

(OR)

10. a) Write about the message that Robert Frost conveys through the poem, *Stopping by*   6M
        woods on a snowy evening and justify your response.
    b) Write a precis of the following passage to one-third of its length and give a   6M
        suitable title.

        Trees give shade for the benefit of others, and while they themselves stand in the
        sun and endure the scorching heat, they produce the fruit of which others profit.
        The character of good men is like that of trees. What is the use of this perishable
        body if no use is made of it for the benefit of mankind? Sandalwood, the more it
        is rubbed, the more scent does it yield. Sugarcane, the more it is peeled and cut up
        into pieces, the more juice does it produce. The men who are noble at heart do not
        lose their qualities even in losing their lives. What matters whether men praise
        them or not? What difference does it make whether they die at this moment or
        whether lives are prolonged? Happen what may, those who tread in the right path
        will not set foot in any other. Life itself is unprofitable to a man who does not live
        for others. To live for the mere sake of living one's life is to live the life of dog
        and crows. Those who lay down their lives for the sake of others will assuredly
        dwell forever in a world of bliss.

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CODE: 18CST101   **SET-1**

ADITYA INSTITUTE OF TECHNOLOGY AND MANAGEMENT, TEKKALI
(AUTONOMOUS)
I B.Tech II Semester Regular/Supplementary Examinations, November-2020

DATA STRUCTURES AND ALGORITHMS
(Common to 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) Explain about different notations for time complexity and space complexity of algorithms.   6M
    b) List and explain different operations performed on data structures.   6M

(OR)

2. a) Write about the classification of data structures.   8M
    b) Explain the properties of an algorithm with an example.   4M

UNIT-II

3. a) Write and explain Binary Search algorithm. Also mention its time complexity.   6M
    b) Sort the below list of elements in ascending order using quick sort: 6M
       29, 23, 17, 57, 34, 89, 65, 27.

(OR)

4. a) What is hashing? Explain its role, advantages and disadvantages with respect to searching.   8M
    b) Define heap. Explain heap sort algorithm.   4M

UNIT-III

5. a) Explain how postfix expressions are evaluated using stacks. Give an example.   6M
    b) With array representation, explain the basic queue operations.   6M

(OR)

6. a) Differentiate between linear queues and circular queues with insert and delete operations.   6M
    b) Define stack ADT. Explain basic operations of a stack ADT.   6M

UNIT-IV

7. a) Write an algorithm for representing queue insert and delete operations using linked lists.   6M
    b) Write an algorithm to delete an element anywhere from doubly linked list.   6M

(OR)

8. a) Write an algorithm to insert new node at the beginning, at middle position and at the end of a singly linked list.   6M
    b) Write an algorithm to push and pop an element from a linked stack.   6M

UNIT-V

9. a) What is a height balanced tree? Give an example.   4M
    b) Write and explain the different binary tree traversal algorithms.   8M

(OR)

10. a) Explain, in detail, deletion of a node from a binary search tree with one suitable example.   6M
    b) Explain the properties of a binary search tree in detail with an example.   6M

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