

AR18

CODE: 18HST101

SET-1

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

I B.Tech I Semester Supplementary Examinations, January 2019

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) What are Swami's impressions of his school? **6M**
b) Write synonyms for the following words. **6x1=6M**
i. Puny ii. Sacrifice iii. Sorrow iv. Disguise
v. Indomitable vi. Defend
(OR)
2. a) How does Swami's experiences in the class contradict his expectations? **6M**
b) Write one-word substitutes for the following expressions. **6x1=6M**
i. Killing of one's son or daughter
ii. A family of young animals
iii. Someone in love with himself
iv. One who is not sure about God's existence
v. Fear of disease
vi. Custodian of a museum or other collection

UNIT-II

3. a) Give an account of the early influences of Abdul Kalam. **6M**
b) Fill in the blanks with appropriate verb forms. **6x1=6M**
i. Raghav _____(work) since 1990 in this office.
ii. I _____(go) to Hyderabad tomorrow.
iii.If I went to library, I _____ (bring) books for you.
iv. The door bell rang while I _____(wash) the dishes.
v. He _____(eat) only bread and butter everyday for breakfast.
vi. Ramani _____(agree) to the proposal made by Raju.

(OR)

4. a) Do you think that the early days of Kalam are an inspiration to us? Support your answer with details drawn from the text. **6M**
- b) Rewrite / Convert the following as directed. **6x1=6M**
- i. He loves reading books. He loves mural painting.
(combine using “Not only....But also)
 - ii. The thief ran away so as to escape the police. (lest)
 - iii. Rahim said, “ Khalid will not attend the exams”.
(into Indirect speech)
 - iv. The police strictly warned the mob to disperse immediately. (into Direct speech)
 - v. The Ganga is the longest river in India. (into comparative degree)
 - vi. Tekkali is a nice place to live in. (into superlative)

UNIT-III

5. a) What are three of the rules endorsed by George Orwell in order to better your use of English? **6M**
- b) Correct the following sentences in connection with subject-verb agreement / noun- pronoun agreement / misplaced modifiers / articles / redundancies **6x1=6M**
- i. Raj is not the player only to blame.
 - ii. The measles have wide spread across the city.
 - iii. Mr. Gupta is always thinking about the welfare of his family.
 - iv. An honest man like him should not be blamed in a affair like this.
 - v. Each one in the class broke their bottle.
 - vi. If you heated ice, it will melt.

(OR)

6. a) What are the three expressions George Orwell wishes would stop being used and what are their meanings? **6M**
- b) Fill in the blanks of the below passage with appropriate prepositions. **6x1=6M**
- A book that a person ____ (i) ____ education and good taste does not care ____ (ii) ____ read more than once is very probably not worth much. But we cannot consider the judgement of a single individual infallible. Sometimes we cannot perceive anything good ____ (iii) ____ a book which has been admired and praised for hundreds of years.

When you are (iv)___ read a book, and if somebody tells you that it is not worth reading, better you do not obey. A book has to be judged (v)___ the reader himself. The rule applies to all the readers ___(vi)___ the world.

UNIT-IV

7. a) How does Tagore make use of religious scriptures for his plays? **6M**
b) Write a letter to the Editor of your local news paper pointing out to the grammatical errors that were printed in an article published by them in the recent days. **6M**

(OR)

8. a) Describe the character Govinda in the play Sacrifice by Tagore? **6M**
b) Write an E-mail to your colleague requesting him to submit your project since you cannot attend the office the next day. **6M**

UNIT-V

9. a) What Kind of dilemma does the poet have when he reaches the woods in the poem “ Stopping By Woods on a Snowy Evening ”? **6M**
b) Read the following passage carefully and answer the questions. **6x1=6M**

A sanctuary may be defined as a place where Man is passive and the rest of Nature active. Till quite recently Nature had her own sanctuaries, where man either did not go at all or only as a tool-using animal in comparatively small numbers. But now, in this machinery age, there is no place left where man cannot go with overwhelming forces at his command. He can strangle to death all the nobler wild life in the world to-day. To-morrow he certainly will have done so, unless he exercises due foresight and self-control in the mean time.

There is not the slightest doubt that birds and mammals are now being killed off much faster than they can breed. And it is always the largest and noblest forms of life that suffer most. The whales and elephants, lions and eagles, go. The rats and flies, and all mean parasites, remain. This is inevitable in certain cases. But it is wanton killing off that I am speaking of to-night. Civilized man begins by destroying the very forms of wild life he learns to appreciate most when he becomes still more civilized. The obvious remedy is to begin conservation at an earlier stage, when it is easier and better in every way, by enforcing laws for close seasons, game preserves, the selective protection of certain species, and sanctuaries.

I have just defined a sanctuary as a place where man is passive and the rest of Nature active. But this general definition is too absolute for any special case. The mere fact that man has to protect a sanctuary does away with his purely passive attitude. Then, he can be beneficially active by destroying pests and parasites, like bot-flies or mosquitoes, and by finding antidotes for diseases like the epidemic which periodically kills off the rabbits and thus starves many of the carnivora to death. But, except in cases where experiment has proved his intervention to be beneficial, the less he upsets the balance of Nature the better, even when he tries to be an earthly Providence.

- i. How did the author define a sanctuary?
- ii. What will happen if Man enters the world of wild life?
- iii. What is the remedy to save the wild animals?
- iv. Which kind of animals suffer the most?
- v. What is the central idea of the passage?
- vi. Find the word from the passage which means "Depending on others for food."

(OR)

10. a) What are the contrasting images of the natural world and the man-made world in the poem "Stopping by Woods on a Snowy Evening"? **6M**
- b) Write an essay on "misuse of mobile phones" in 500 words. **6M**

**Basic Electrical Engineering
(Common to EEE, ME, ECE Branches)****Time: 3 Hours****Max Marks: 60**

Answer ONE Question from each Unit

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All parts of the Question must be answered at one place

UNIT-I

1. a) State ohm's law, Kirchoff's current law, Kirchoff's voltage law. 6M
- b) Find the current supplied by 20v source of the circuit shown in Fig.1. 6M

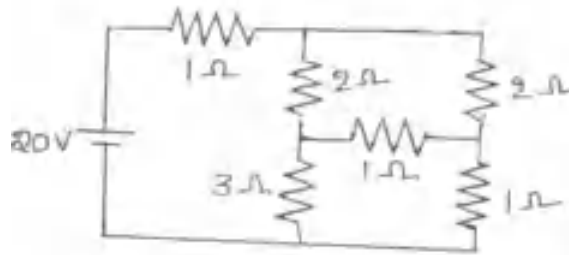


Fig.1

(OR)

2. a) Explain the delta-star transformation 6M
- b) Find the current in the various branches of the Fig.2 6M

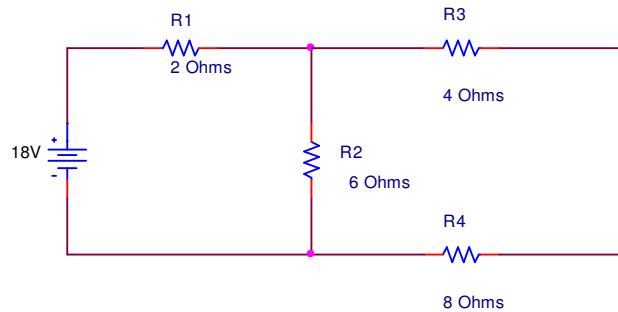
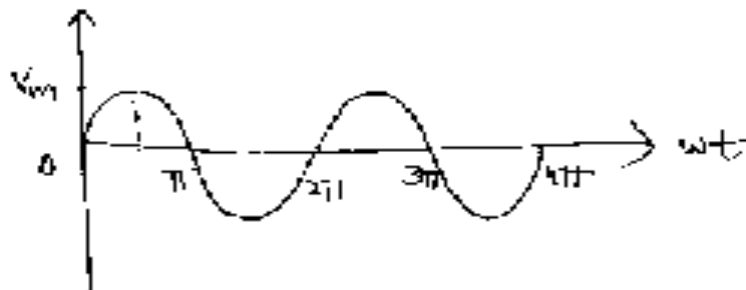


Fig.2

UNIT-II

3. a) Define 1) Time period 2) Average value 3) R.M.S value. 6M
- b) Find the average value and r.m.s value of the following wave forms 6M



(OR)

4. a) Explain about real power, reactive power, apparent power and power factor of a single-phase Ac circuit with necessary equations. 6M
- b) A circuit having a resistance of 12Ω , in inductance of 0.15 H and a capacitance of $100\ \mu\text{F}$ in series is connected across a 100 V, 50 Hz supply. Calculate the impedance, current and power factor. 6M

UNIT-III

5. a) Draw the internal and external characteristics of shunt generator. 6M
- b) Calculate the value of torque established by the armature of a 4-pole motor having 774 conductors, two paths in parallel, 24 mwb flux per pole, when the total armature Current is 50A. 6M

(OR)

6. a) Explain the principle of operation and working of a dc motor. 6M
- b) A 6 – pole lap – wound DC generator has 600 conductors on its armature. The flux per pole is 0.02 wb. Calculate 6M
- i) The speed at which the generator must be run to generate 300V.
- ii) What would be the speed if the generator were wave – wound.

UNIT-IV

7. a) Explain the operation of single-phase transformer with its constructional features. 6M
- b) A 10 kVA, 200/400 V, 50 Hz single phase transformer gave the following test results 6M
- | | |
|--------------------------------------|---------------------|
| OC test (HV winding open) | 200 V, 1.3 A, 120 W |
| SC test (LV winding short-circuited) | 22 V, 30 A, 200 W |
- Find the parameters of equivalent circuit as referred to LV winding.

(OR)

8. a) Derive the expression for approximate voltage regulation of a single-phase transformer. 6M
- b) An ideal 25 KVA transformer has 500 turns on the primary winding and 40 turns on the secondary winding. The primary is connected to 3000V, 50 HZ supply. Calculate: 6M
- i) Primary and secondary currents on full – load
- ii) Secondary e.m.f

UNIT-V

9. a) Explain the following, (i) slip (ii) Rotating magnetic field. 8M
- b) A 3 Φ induction motor has 2 poles and is connected to a 400V, 50Hz supply. Calculate the actual speed and rotor frequency when the slip is 4%. 4M

(OR)

10. a) Explain the principle of operation of three phase induction motor. 6M
- b) Explain torque-slip characteristics of three phase induction motor. 6M