

SATHYABAMA UNIVERSITY

FACULTY OF SCIENCE AND HUMANITIES

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DEPARTMENT OF ENGLISH

ENGLISH FOR SCIENCE AND TECHNOLOGY

SHSA1101

(Common to ALL branches of B.E / B.Tech)

QUESTION BANK

UNIT I&II

PART- A

| | |
|-----|--|
| 1. | Kinds of Sentences |
| 2. | Parts of Speech |
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1. KINDS OF SENTENCES

I. Identify the kind of Sentence.

1. Alexander Graham Bell was an American inventor.
2. Be thankful that George Eastman invented the film for your camera.
3. What a useful invention that was!
4. Try to name another American inventor?
5. How easy it is to take pictures today?
6. He was the inventor of the traffic light.
7. Imagine the traffic problems we'd have without it.
8. Think of an invention that could make life easier.
9. Find out what else Baldwin invented.
10. Do you enjoy photography?

II. Rewrite the sentences according to the instructions in brackets

1. How useful the invention of the light bulb was!
(Change into a declarative sentence.)
2. Thomas Edison was born in 1847.
(Change into an interrogative sentence.)
3. Will you tell me what Edison's first job was ?
(Change into an imperative sentence.)
4. Edison was a creative thinker.
(Change into an exclamatory sentence.)
5. What a tremendous effect Edison's inventions have had on the world?
(Change into a declarative sentence.)
6. Was Edison the inventor of the phonograph too?
(Change into a declarative sentence.)
7. Edison's laboratory was in New Jersey?
(Change into an interrogative sentence.)
8. Don't lose your calm if your friends's opinions differ from yours.
(Change into an declarative sentence)
9. His voice was pleasant.
(Change into Exclamatory Sentence)
10. We have often been unworthy followers of his. (Change into Interrogative Sentence)

2. PARTS OF SPEECH

State which parts of speech are the underlined words

1. You have to believe in yourself if you ever expect to be successful at something.
2. We left for the mountain just before six in the morning.
3. We first went to the store to buy a few things.
4. We had a breakfast at a café near the rail station.
5. My friend said, "Oh! What a cold weather!"
6. Technical Policy Statements (TPSs) are brief announcements on matters of technical policy.
7. The x-axil of the complex plane is the real axis and its y-axis is called the imaginary axis.
8. In engineering practice the unit in use is the absolute temperature scale.
9. The hatched region reveals the solid portion or the thickness.
10. Top view should be presented below the front view.

3. TENSES

Fill in the blanks with the suitable tense forms of the verbs given in brackets:

- 1) The progress in the field of chemistry _____ (result) in the proliferation of all kinds of industries.
- 2) The production of fertilizers and pesticides _____ (have) the way for more production of food items.
- 3) HML ----- (possess) an integrated state-of -the art manufacturing plant.
- 4) The VIRUS _____ (be) spread by an expert in computers.
- 5) Internationally the demand for silver _____ (grow) due to increased industrial consumption.
- 6) Civilization, culture and progress ----- (depend) on education.
- 7) The nineteenth century scientist Michael Faraday _____ (make) use of the principle of the magnetism in the dynamo.
- 8) We _____ (reach) our destination by this time tomorrow.
- 9) The thermometer _____ (measure) the temperature of the body.
- 10) Before a house _____ (build) secure foundations have _____ (lay).

4. IMPERSONAL PASSIVE

I. Rewrite the sentences by changing into impersonal passive voice:

- 1) They developed several theories about electricity.
- 2) Welders normally prefer a vee-shaped weld.
- 3) They classify the materials into various categories.
- 4) We clamp the two metal plates together.
- 5) We can produce the magnetic field by a current-carrying conductor.
- 6) They connect a capacitor and resistor in a series.
- 7) Multinational companies made huge investments in oil-rich countries.

- 8) The Government has taken measures to improve the transport facilities in India.
- 9) A company has produced thousands of cars this year.
- 10) They will find a solution to the water problem.

II. Identify whether the sentence is expressed in active or passive voice.

- 1) On July 2006, UK researchers have developed a new type of polymer scaffold support for growing cultured human skin cells.
- 2) The fine fibers were captured and formed into a mesh that resembles tissue paper.
- 3) Certain sizes of fibre have been found to be optimal, and results of this work on fibre dimensions are due to be published shortly in the journal Tissue Engineering.
- 4) Thomas McCarthy and Lichao Gao from the University of Massachusetts, Amherst were investigating the hydrophobic properties of silicon compounds known as methylchlorosilanes.
- 5). The researchers recorded the interaction between a supported droplet and the coated surface.

5. CONCORD

Rewrite the following sentences using the correct form of the verb given in the brackets:

- 1) The salary of computer professionals _____ (is/are) dropping day by day.
- 2) A Team of civil engineers _____ (has/have) just inspected the site.
- 3) Few of the girls _____ (has/have) been selected to attend the scientific meet in New Delhi.
- 4) Fire and water _____ (do/does) not agree.
- 5) The engineer along with his team _____ (is/are) visiting the site.
- 6) Character not riches _____ (win/wins) the respect of the people.
- 7) Problem after problem _____ (were/was) brought before me.
- 8) Either the Engineer or the technicians _____ (have/ has) to be blamed for the mishap.
- 9) Few Technicians (know /knows) the application of these concepts in their workplace.
- 10) What criteria (has / have) been employed in the selection of the tools for the experiment?

6. PREFIXES & SUFFIXES

I. Rewrite the following words by adding suitable prefixes/suffixes as per the directions given in the brackets:

1. ____conductivity : The property of having zero electrical resistance.
2. ____tension : abnormal blood pressure.
3. aspire-____ : aim
4. fashion____ : change to adverb
5. ____skilled : partly skilled
6. ____reliable : untrustworthy
7. ____acting : single
8. ____Pollution : against pollution
9. ____sensitive : having more sensitivity.
10. _____ marine : brilliant deep blue colour.

II. In the sentences below complete each word with a prefix chosen from the following list.

re- post- over pre- super-

1. We hope the bus won't be _____ crowded.
2. Do you think the Mayor will be _____ elected for a second time?
3. After he got a Ph.D. in Chemistry, he did _____ doctoral work at Oxford University.
4. He took _____ cautions against burglary by installing an alarm.
5. He added a _____ script at the end of the letter.

III. Write the opposite of the underlined words using proper prefixes:

1. The proposal for the new bridge is acceptable.
2. The discussion ended up with most people in agreement.
3. You have spelt many words.
4. The phone company will connect your telephone soon.
5. Due to the deaths of several patients, a lawyer was sent to investigate the doctor's practice.

IV. Put the word in brackets into the correct form using suitable suffix:

- 1) The team that he supported were able to win the _____. (champion)
- 2) He wants to be a _____ when he grows up. (mathematics)
- 3) You need to be a highly trained _____ to understand this report. (economy)
- 4) There were only a _____ of people at the symposium. (hand)
- 5) Rithish needed to _____ the temperature (regular)

V. Fill in the blank spaces given below with the appropriate form of the word by adding suffixes:

| Noun | Adjective | Verb | Person or thing |
|------------------|-------------|--------|-----------------|
| 1 _____ | _____ | admire | _____ |
| 2. advertisement | _____ | _____ | _____ |
| 3. _____ | alternative | _____ | _____ |
| 4. _____ | _____ | _____ | appropriator |
| 5. calculation | _____ | _____ | _____ |

VI. Write noun forms to the following words:

- (i) suburban (ii) continue (iii) retract (iv) vigorously (v) manage

VII. Write Verb form for the following words by using affixes:

- (i) Courage (ii) Memory (iii) Prison (iv) Class (v) Friend

VIII. Add suitable prefixes/suffixes according to the given meanings:

- (a)hale - expel gas or vapor.
- (b)edible -not suitable to eat.
- (c) -----merge - keep something below water level.
- (d) _____ structure (above)

(e) techno _____ (fear of technology)

IX. Read the five sentences below. The same base word given in the first sentence (in bold and underlined) should be used to fill the other sentences , but in different forms.

- 1) I much **prefer** locally made ale to the kind made by the big breweries.
- 2) Francis thought marmalade on toast was _____ to strawberry jam.
- 3) I would like to travel to Europe next spring, _____ to Italy.
- 4) Joseph likes playing football, but Lawrence's _____ is baseball.
- 5) Some of the parents of the other kids on the team believe the coach has been giving _____ treatment to his own son.

X. Read the five sentences below. The same base word given in the first sentence (in bold and underlined) should be used to fill the other sentences , but in different forms.

- 1) Scientists working in the battle against cancer are hoping to be able to **manipulate** the DNA of a cancer sufferer so that the disease kills itself.
- 2) She practises shiatsu, an oriental form of body _____ as well as massage.
- 3) I wouldn't trust Elinor; she is very _____, and is friendly only when she thinks it is in her own interest.
- 4) The research results have obviously been _____ in order to get the desired answers.
- 5) Advertising is the art of _____ people into buying something they don't necessarily need.

7. CLOZE READING

1. Choose the right word and fill the blanks from the words given in the help box:

| |
|---|
| that your an May just professor forget to energy a have |
|---|

Ever wonder why it's such an effort toabout work while on vacation or to silenceannoying song that's playing over and over inhead? Mathematicians at Case Western Reserve University maypart of the answer. They've found thatas thinking burns energy, stopping a thought burns-- like stopping a truck on a downhill slope. "..... be this explains why it is so tiringrelax and think about nothing," said Daniela Calvetti,of mathematics, and one of the authors of ...new brain study. Their work is published inadvanced online publication of *Journal of Cerebral Blood Flow & Metabolism*.

2) Choose the right word and fill the blanks from the words given in the help box:

| |
|---|
| Important we contains and which the Blasts slag bottom with |
|---|

The earth contains a large number of metalsare useful to man. One of the mostof these is Iron. The iron ore whichfind in the earth is not pure. Itsome impurities which we remove by smelting. The process of smelting consists of heating the ore in a blast furnacecoke and limestone and reducing it to metal.of hot air enter the furnace from theand provide the oxygen which is necessary forreduction of the ore. The ore becomes molten,its oxide combines with carbon from a liquid..... This floats on top of the molten iron, and passes out of the furnace through a tap. The metal which remains is pig iron.

3. Choose appropriate words from the given list for the blanks below:

Can we see (1) the earth is a globe? Yes, we can, when we watch a ship that sails out to sea. If we watch closely, we see that the ship begins (2) The bottom of the ship disappears first, and then the ship seems to sink lower and lower, (3) we can only see the top of the ship, and then we see nothing at all. What is hiding the ship from us? It is the earth. Stick a pin most of the way into an orange, and (4) turn the orange away from you. You will see the pin disappear, (5).....a ship does on the earth.

1. A. if B. where C. that D. whether E. when
2. A. being disappeared B. to be disappeared C. to have disappeared D. to disappear
E. having disappeared
3. A. until B. since C. after D. by the time E. unless
4. A. reluctantly B. accidentally C. slowly D. passionately E. carefully
5. A. the same B. alike C. just as D. by the way E. similar to

4. Choose appropriate words from the given list for the blanks below:

After months of colder weather, the days get longer, the buds (1) in the trees, birds sing, and the world (2) a green dress. Spring passes (3) summer. Everyone knows that summer will not (4) The power of all the wisest men and women in the world cannot keep it for us. The corn becomes ripe, the leaves turn brown and then drop to the ground, (5) the world changes its green dress for a dress of autumn colors.

1. A. fall off B. take up C. put off D. come out E. bring down
2. A. looks after B. puts on C. carries on D. comes round E. deals with
3. A. into B. by C. from D. on E. out of
4. A. forego B. evaluate C. succumb D. last E. evolve
5. A. yet B. therefore C. since D. whereas E. and

8. CONNECTIVES

Combine the following sentences using Connectives / Discourse Markers :

1. They advertised the product. Everyone must be aware of the advantages of it.
2. They are electrifying the main lines. Their intention is to improve the railway service.
3. Steam turbines are used. They run generators in thermal power plants.
4. Cooling becomes essential in IC engines. Air cooling or water cooling is used.
5. A good network of transport systems is maintained. It enables economic, industrial and cultural growth of a country.
6. The steam from the boiler is wet. It has to be passed through a super heater.
7. The temperatures reached are very high. Some method of cooling must be adopted.
8. This type of turbine is very widely used. It has a much greater efficiency.
9. Metal expands when it is heated. Expansion joints are fitted to steam pipes.
10. Exhaust gases still possess a great deal of heat. They can be used to heat the incoming air to the boiler.
11. Atomic power is not available in sufficient quantity. Coal is still a very valuable source of power.
12. The Manager was in a hurry. He listened carefully to his staff.
13. The computer is quite old. It is in good working condition.
14. Vertical boilers were installed in the factory. Only a limited floor-space was available.
15. The apprentices had very little training. Their work was very poor.

9. TYPES OF SENTENCES

a) Identify the sentence type in the following sentences:

- 1) In the workshop, during summer season, it is extremely hot and sultry.
- 2) I went to the shop to buy some technical books and then drove to my university.
- 3) All of a sudden, in the middle of the experiment, the teacher fainted.
- 4) Seetha wants to be good at Signal Processing paper and she does a lot of reading daily.
- 5) After finishing his mechanical drawing, Kami went to meet her professor.

b) Rewrite the following sentences as directed:

- 1) The mechanic was tired. He completed the repair. (Into Complex sentence)
Though he _____
- 2) Rohan has to take leave for 15 days. He submitted his project well ahead of time
(Into Compound sentence)
- 3) The physics class was over. Nithya rushed to her lab class. (Into Complex sentence)
After her _____
- 4) Hockey players are careful. They still get hurt often. (Into Compound sentence)
- 5) Tom is a second year engineering student. He specializes in the field of Computer engineering. (Into Complex sentence)

c) Complete the sentences below with suitable Conjunctions:

1. My Professor has a personal computer _____ a laptop.
2. We waited in the computer lab to do the experiment. There was no power.
3. Sushil joined dot net course. Sushil wanted to enhance his technical expertise.
4. We started the experiment on time. We could not complete it.
5. The maintenance of the machine is given to J&J company. Their service is good.

d) Rewrite the following sentences choosing from the best discourse markers/ adverbial phrases given below:

(As a result, Consequently, Therefore, Furthermore, Nonetheless)

1. He reduced the amount of time studying for his final exams. His marks were rather low.
2. We've lost over 3,000 customers over the past six months. We have been forced to cut back our advertising budget.
3. The government has drastically reduced its spending. A number of programs have been cancelled.
4. I assured him that I would come to his presentation. I also invited a number of important representatives from the local chamber of commerce.
5. Smoking is proved to be dangerous to the health. 40% of the population smokes.

10. TECHNICAL DEFINITIONS

Give Technical Definition to the following words

- | | | | | |
|------------------|--------------------|--------------------|-----------------|-----------|
| 1. electricity | 2. circuit | 3. conductor | 4. resistance | 5. switch |
| 6. insulator | 7. air conditioner | 8. boiler pressure | 9. power | 10. Watt |
| 11. Steam engine | 12. Cyber space | 13. Power cable | 14. Speedometer | 15. brake |

11. VERBAL PHRASES

1. There are many pressures and stresses that come with being a student in a foreign country.
 - a. infinitive phrase
 - b. gerund phrase
 - c. participial phrase
2. Dealing with a different language and culture, foreign students have additional difficulties in passing their courses.
 - a. infinitive phrase
 - b. gerund phrase
 - c. participial phrase
3. To understand their lessons, foreign students generally need twice as much time studying as their native classmates.
 - a. infinitive phrase
 - b. gerund phrase
 - c. participial phrase
4. Being away from their families and friends makes it difficult for foreign students to concentrate.
 - a. infinitive phrase
 - b. gerund phrase
 - c. participial phrase
5. Eating different foods and being exposed to different viruses often causes illness among foreign students.
 - a. infinitive phrase
 - b. gerund phrase
 - c. participial phrase
6. There are several things students can do to minimize their stress.
 - a. infinitive phrase
 - b. gerund phrase
 - c. participial phrase
7. When a situation becomes too serious, try making a joke.
 - a. infinitive phrase
 - b. gerund phrase
 - c. participial phrase
8. Often said to be the best medicine, laughter can improve a stressful situation.
 - a. infinitive phrase
 - b. gerund phrase
 - c. participial phrase
9. Putting on music can also calm you when you feel overwhelmed.
 - a. infinitive phrase
 - b. gerund phrase
 - c. participial phrase

10. Changing the environment, music can soothe your nervous tension.

- a. infinitive phrase
- b. gerund phrase
- c. participial phrase

12. DISCOURSE MARKERS

Complete the following sentences.

1. I fired at the leopard, he shook my arm.
 - a) as
 - b) since
 - c) because
 - d) for
2. Arranged marriages are unusual in the West. In the Middle East,, they are common.
 - a) but
 - b) on the other hand
 - c) similarly
 - d) in spite of this
3. The job wasn't very interesting., the money was OK.
 - a) While
 - b) Mind you
 - c) In addition
 - d) Due to this
4. The train was late. I managed to reach in time.
 - a) In spite of this
 - b) Additionally
 - c) Similarly
 - d) Due to this
5. The British may have done some good in India. colonialism is basically bad.
 - a) Even so
 - b) Even as
 - c) Similarly
 - d) In the same way
6. we are satisfied with life.
 - a) In general
 - b) As for
 - c) As far as
 - d) Apart from
7. The flood victims are short of food. they urgently need medical supplies.
 - a) Similarly
 - b) In addition
 - c) Any how
 - d) For instance
8. I get up late at weekends, _____ during cold weather.
 - a) ? including
 - b) ? particularly
 - c) ? similarly
9. She rarely drinks, _____, not during the week.
 - a) ? particularly
 - b) ? in other words

- c) ? or at any rate
10. The study also mentions two other cities, _____ Singapore and Shanghai.
- a) ? namely
- b) ? in other words
- c) ? to be accurate

Complete the following sentences using an appropriate discourse marker.

1. nurses are overworked and underpaid.
- a) In particular
- b) Broadly speaking
- c) Especially
- d) Except for
2. I don't believe in ghosts. I haven't seen one yet.
- a) I think
- b) At least
- c) In particular
- d) In other words
3. I think he should be acquitted. he is too young to know the difference between right and wrong.
- a) After all
- b) At least
- c) Well
- d) Honestly
4. The man was sleeping soundly on the river bank. a crocodile was creeping closer.
- a) Despite this
- b) Meanwhile
- c) As a result
- d) By contrast
5. The child didn't get any medical attention. ————, she died soon after.
- a) Despite this
- b) As a result
- c) In this case
- d) In spite of that
6. He has been warned before., he shouldn't have repeated this.
- a) In this case
- b) In spite of this
- c) Instead

13. ADJECTIVES/ADVERBS

1. My train arrived **late**, as usual Adverb/ Adjective
2. I'm watching the **late** film Adverb/ Adjective
3. My brother loves **fast** cars Adverb/ Adjective
4. He drives too **fast** Adverb/ Adjective
5. This exercise is **harder** than I thought Adverb/ Adjective
6. I hope you'll try **harder** in future Adverb/ Adjective
7. The Times is published **daily** Adverb/ Adjective
8. The Times is a **daily** newspaper Adverb/ Adjective
9. You've just ruined my **best** shirt Adverb/ Adjective
10. Computers work **best** if you kick them Adverb/ Adjective

14. PREPOSITIONAL PHRASES

Choose the best answer to complete each sentence.

1. There are lots of birds nesting _____.
 - a. Under the eaves
 - b. There
 - c. Now
2. After school, the children played tag _____.
 - a. At the park
 - b. Roughly
 - c. And baseball
3. Come _____ with me.
 - a. Home
 - b. Over
 - c. Into the store
4. _____ the chair sat mouldering in the attic.
 - a. Sad to say,
 - b. For one hundred years
 - c. Incredibly
5. I gave the children pizza _____ pancakes for breakfast today.

- a. Instead of
- b. Because of
- c. Any more

15. COLLOCATIONS

Fill in the blanks using appropriate verbs that would complete the collocation.

1. If you park there, you will have to a fine.
a) pay b) take c) have
2. He no attention to my requests.
a) paid b) took c) had
3. I a cough to catch her attention.
a) gave b) paid c) took
4. Although the doctors tried hard, they couldn't his life.
a) save b) bring c) take
5. Abbreviations space and hence they are very common in newspaper headlines.
a) catch b) save c) take
6. Do you a diary?
a) keep b) have b) save
7. Few people can a secret.
a) keep b) save c) have
8. He still in touch with most of his old school mates.
a) keeps b) saves c) take
9. I asked her what her problem was but she quiet.
a) kept b) took c) saved
10. They close to hitting each other.
a) came b) took c) brought

PART- B

| Sl. No. | UNIT | TOPICS | PAGE No. |
|----------------|-------------|----------------------------------|-----------------|
| 1. | I | READING COMPREHENSION | |
| 2. | I | LETTER WRITING | |
| 3. | II | TRANSCODING | |
| 4. | III | NOTE MAKING | |
| 5. | III | ESSAY WRITING | |
| 6. | IV | PROJECT PROPOSAL | |
| 7. | IV | MANUAL WRITING | |
| 8. | IV | INSTRUCTIONS | |
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| 10. | IV | EDITING | |
| 11. | V | REARRANGING JUMBLED SENTENCES | |
| 12. | V | READING AND SUMMARIZING | |
| 13. | V | EMAIL WRITING | |
| 14. | V | CREATIVE WRITING & POSTER MAKING | |

PART-B

READING COMPREHENSION

1.Read the following passage and answer the questions that follow.

An earthquake is the result of some sort of shock within the Earth that release energy as tremors or seismic waves. The Shock may be a sudden rupture on a fault - a fracture running through layers of rocks. These seismic waves radiate from the source or focus of the quake. The epicentre is the point on the surface of the Earth immediately above the focus. This is where the effects of quake are usually most apparent. A big quake can be preceded by smaller tremors, known as foreshocks and followed by aftershocks. Both can cause devastation, but particularly when aftershocks hit buildings that are already damaged by the main shock. Seismic waves travel both along the surface and through the body of the Earth, Surface Waves. May more vertically and horizontally, like waves on the sea, or they can oscillate solely horizontally. After a quake, there are two types of body waves. The first type, called primary or P Waves are always the first to arrive at a particular point. These are pressure waves, like sound waves. They consist of a sequence of compressions and rarefactions moving in the direction in which the waves are traveling. The second body waves to arrive are transverse waves. These S Waves are a series of oscillations at right angles to the direction of movement. There is an earthquake roughly every day, somewhere in the world. Quakes of magnitude 7 and larger, which are about the size of the devastating quake in Azerbaijan in 1988, happen every week, But such large quakes tend to be noticed only when they happen on land, near populated areas, or if they are submarine and create large destructive “sea waves” or tsunami. Most earthquakes are so small or originate so deeply that that are detected only by seismometers, instruments which amplify and record the movement of the ground resulting from quakes. By mapping out the intensity of ground movements during quakes, researchers have come to relies that the properties of rocks and sediments immediately below the ground influence the pattern of vibrations during a quake. Sediments such as sand oscillate in a less predictable way than sold rock, during far more damage to the foundations of buildings. Pressure waves from quakes can also disrupt subsurface water, turning solid sediments into fluids, like quicksand. Thus, process called fluidization can wreck the foundations of large buildings and other structures, causing them to collapse.

Answers the following in one sentence each.

1. What is an earth quake?
2. Define the term 'Tsunami'
3. What is epicenter?
4. What is fluidization?

Say whether the following statements are True or False.

5. There is not a single moment without Earthquake-
6. Body waves result from surface waves-
7. There are few large Earthquakes-
8. Fluidization can turn solid in to water-

Choose the best alternative which reflects the meaning of the word as it has been used in the text.

9. Devastation a) Waste b) level c) destruction
10. Rupture a) Cleavage b) Break c) Burst
11. Radiate a) Shine b) Emit c) Spread

Complete the following sentence

12. The P waves consist of -----

2. Read the following passage and answer the questions given below

Times have witnessed certain mysterious incidents in the Bermuda Triangle region of the Atlantic. Most of the instances of the disappearing of ships and aircraft could not be tracked to scientific phenomenon or human error. The incidents bore an element of mystery as the causes behind the happenings could not be deciphered. There are records of quite a few incidents that can be called as supernatural mysteries in the Bermuda Triangle. One of the mishaps that dates back to 1918, was one of the greatest losses of life in the history of the US Navy. In March 1918, USS Cyclops carrying a crew of 309 departed the island of Barbados, after which it disappeared. Some claim enemy activities or natural disasters as being the reasons behind this mishap but no conclusive results have yet been obtained. Flight 19, a training flight carrying bombers disappeared on December 15, 1945. The flight that began under the control of an experienced pilot was found missing while it was traveling over the Atlantic Ocean. There were no known records of the flight having to face magnetic problems though there is a popular notion of control dials working in an erratic manner. However, the reasons behind the disappearing of the flight

were claimed as being unknown. The other mysterious supernatural stories revolving around the Bermuda Triangle include, the disappearing of a schooner named Carroll A. Deering and that of a Douglas DC-3 aircraft while flying from Puerto Rico to Miami. The exact reasons behind both the ill-fated events could not be found through much investigation and research. Occurrences of such mysterious events of sudden missing of vessels and aircraft have left us puzzled. Mysterious disappearing of these ships and airplanes has made mankind feel the presence of supernatural powers in these incidents. Science has failed to ascertain either human mistakes or some natural phenomena causing the mishaps. This has given rise to a common belief that supernatural powers may be involved in the Bermuda Triangle mysteries. Till scientific research brings out concrete reasons behind the disappearing of ships and aircraft in the Bermuda Triangle, many shall continue to attribute them to supernatural powers.

Answer the following in one sentence each.

1. When and where did the flight 19 disappear?
2. What is Bermuda Triangle?

Say True or False

3. Bermuda Triangle mysteries have made mankind to feel the presence of supernatural powers.
4. Bermuda Triangle is in the exact region of the Arctic.

Give synonyms for the following terms which is relevant to the text.

5. Deciphered.
6. Erratic
7. Concrete
8. Schooner

Choose the best option

9. Mysterious disappearing of the ships and airplanes is the result of
 - a) enemy activities
 - b) supernatural powers
 - c) human mistakes
10. Solution can be brought out by
 - a) investigation and research.
 - b) removing the power of supernatural powers
 - c) training pilots to face magnetic problems

Complete the sentence:

11. The reasons behind the disappearing of the flights and ships were still _____.
12. The exact reasons behind both the ill-fated events could not be found _____.

3. Read the following passage and answer the questions given below.

Titanic was built in Belfast, Ireland at the Harland and Wolff Shipyard. The model of the ship was designed by Lord Pirrie, chairman of Harland and Wolff; Thomas Andrews, the company's head of design, and its general manager, Alexander Carlisle. The construction of the same began on March 31, 1909, and it was funded by J.P Morgan's International Marine Corporation. On completion, the size of the ship was 882 feet and 9 inches long and 92 feet and 6 inches at its beam. The measurement from water to the boat deck was 60 feet long. Only the latest and up-to-date communication and technological equipment were used in this world's largest luxury liner. The ship was divided into sixteen compartments, each with magnet latch door that would close and seal of the compartments by the flip of a switch. It was said this facility of the Titanic would allow it to float , even if two of its compartments were flooded due to any mishap. The naval architecture of Titanic ship was such that it was deemed as an "unsinkable" ship. The crew members of the Titanic tried to maneuver the ship in the opposite direction of the iceberg. However, it was in vain and the ship collided with the iceberg and was ripped parallel across the ship's bulk. Immediately, the water started flooding into the ship. Many of the passengers were unaware of this fact and went about their usual business. While, a few passengers saw the iceberg pass their window and also felt the strange quiver in the ship; they never connected this with the potential peril that had struck the ship. However, the passengers who were on the deck and at various other strategic positions knew the devastating truth - "the Titanic was sinking, and sinking fast". A SOS was sent out to the neighboring ships. By the time, the ship "Carpathia" picked up the distress call and radioed back to the crew of the Titanic, it was too late. All that remained were a handful of lifeboats packed with 705 Titanic survivors. Due to lack of lifeboats, as many as "one thousand and five hundred and twenty-three people" died in this terrible accident. The 1912 sinking of the Titanic ship is the worst maritime disaster, during the "peacetime".

Answer the following in one sentence each.

1. What was the size of the titanic ship?

2. How was the ship divided?
3. The passengers who were on the deck and at various other strategic positions knew the devastating truth. What is the truth?

Say True or False

4. The passengers were aware of the shipwreck but still went about their usual business.
5. Due to lack of lifeboats, 1523 passengers died in this terrible accident.

Give synonyms for the following terms

6. Peril
7. Quiver
8. Vain

Choose the best option

9. This facility of the Titanic would allow it to float; What is “this ”?
 - a) 60 feet height from water level to the boat deck
 - b) Compartments with magnet latch door
 - a) numerous lifeboats
10. The ship was divided into -----compartments
 - a) 60
 - b) 60 feet long
 - c) 16

Complete the sentence.

11. The naval architecture of Titanic ship was such that it was deemed as -----.
12. The crew members of the Titanic -----

4. Read the following passage and answer the questions given below.

The sun is responsible for the creation of electrical ionosphere—its ultraviolet light shines upon molecules of oxygen and nitrogen, partly decomposing them, and knocking off tiny electrons from the atoms which creates the so-called ions. Radio engineers and scientists have ascertained this layer’s presence and can measure its altitude by sending up radio pulses through the stratosphere until they hit the radio ceiling, bounce back, and are caught in a receiving apparatus. The time it takes the waves to go to the ionosphere and return, is carefully noted by computing the rate of travel at the velocity of light. On the side of the earth turned towards the sun, where the ionosphere is exposed directly to the sun’s rays, the ceiling is much lower than on the side of the earth away from the sun. This accounts for the great difference in the way, in which radio waves travel in daytime, as compared with night time. The shorter waves—higher frequencies—

are better for daytime transmission, while longer or lower frequencies are better for night transmission. Just as there is a day and night effect on transmission, there is also seasonal effects. During the long summer months, in the northern hemisphere, the top of the atmosphere is much more heavily ionized than during the shorter days of the winter season. The radio ceiling, therefore, is lower in summer than in winter; regular radio users are probably aware that long—distance transmission and reception are usually much better in winter than in the long, hot days of summer. This is due mainly to a higher, more stable, more reflective radio ceiling, or ionosphere. If the sun's atmospheric influence remained constant, it would be quite simple to work out charts, frequencies, and plans to overcome most of the common difficulties and failures related to radio wave transmission and reception. But unfortunately, the sun, like all things, is changing constantly. The most noticeable change is the appearance of sunspots. Sunspots are the darker areas at times visible on the sun's surface, thought to be tornado—like solar storms. Their average duration is about two weeks, and they usually occur in eleven year cycles. In reality, sunspots are storm areas within the solar atmosphere. Like the cyclonic low pressure disturbances on the earth's surface, they are cooler than their surroundings. While the sun's radiating surface appears to have a temperature of about 6,000 degrees centigrade; that of sunspots is about 2,000 degrees lower, and that is why they appear relatively darker by contrast. Exactly how do sunspots affect radii? During sunspots maxima, solar activity results, as it generally does. In a greater output of ultraviolet light, the ionosphere is more heavily ionized than during the years of sunspot minima. This results in long undulations of the radio ceiling as it rushes and falls over a cyclical eleven year period. Further, when a sunspot is formed suddenly or a violent eruption takes place in the atmosphere of the sun, there is a burst of energy sent towards the earth which, upon hitting the ionosphere, may create all sorts of electromagnetic disturbances. Thus, in view of the fact that long—range transmission and reception depend upon the radio sky wave being reflected back to earth from the ionosphere, it is easy to see that radio communications and the sun are intimately linked. However, this link and its inherent problems are becoming less of an issue since, in many cases, manmade satellites in space are performing well as artificial ionospheres.

Choose the best option.

1. Engineers have ascertained this layer's presence by.
 - a) "dead-reckoning" b) electromagnets. c) Studying charts. d) Sending up radio pulses. e) Measuring light intensity.
2. Long distance radio reception is usually better in the
 - a) Summer. b) Spring. c) Fall. d) Winter. e) In-between seasons.
3. The estimated temperature of the "dark spots" is
 - a) 60,000⁰ centigrade. b) 16,000⁰ centigrade. c) 4,000⁰ centigrade. d) 2,000⁰ centigrade e) 6,000⁰ Fahrenheit.
4. The "dark spots" are believed to be
 - a) Storm areas. b) Cooler than others. c) Optical illusions. d) Cyclonic low pressure areas. e) a, b, and d.

5. The duration of “dark spots” is normally.
a) Eleven years. b) Fourteen days c). Two years. d) Two months e) One week.

Say whether the following statements are true or false.

6. The shorter waves—higher frequencies—are better for nighttime transmission.
7. Sudden formation of sunspots results in electromagnetic disturbances in the ionosphere.
8. The dark areas on the sun’s surface are commonly called as dark spots.
9. Sunspots are the darker areas rarely visible on the sun’s surface.

Give synonyms for the following

10. Undulations
11. Radio pulses

Complete the following sentence.

12. Long - range transmission and reception depend upon _____

5. Read the following passage and answer the questions given below.

Spinning is the process of making yarn from unbundled fibres. It includes the following operations. Upon arrival at the spinning mill, cotton bales are opened to make the lint fluffy by passage through bale-openers. The following important step in the spinning process is cleaning. Bale fibres are usually fed to air-jet (vortex) cleaners to remove extraneous matter from cotton lint (which may hinder further cotton processing and affect lint quality). At this stage loose fibres are not aligned and parallel in a single continuous strand. Carding is the process of straightening or paralleling the fibres. Carding separates fibres from each other, straightens fibres, aligns and condenses them into a single continuous strand, and removes impurities. A sliver of approximately one-meter width is then obtained. Cotton that has already been carded may be combed. Combining is an optional step in the ginning process. This process is only used to produce superior quality yarn and long- or extra long-staple fibres. As a result of drawing (or doubling) the sliver is condensed into a thinner strand and becomes more uniform. The sliver is fed to several rubber rollers rotating at increasingly higher speed. Cotton bleaching (using either hypochlorite or peroxide) and dyeing often occur at this stage. Eventually, several slivers are drawn and twisted together to form the final yarn. Twisting is made by two mechanical actions. First, a drawing frame condenses slivers into a thinner strand (slubbing) and winds it on a

bobbin. A spinning frame then reduces roving to required size of single yarn (fine spinning). A suitable amount of twist is introduced according to the intended use of the fibre.

Choose the best option

1. Spinning is the process of making a) cloth b) yarn c) dye
2. Carding is the process of ----- fibres. a) purifying b) making c)straightening

Say True or False

3. Cotton that has already been carded may not be combed.
4. Several slivers are drawn and twisted together to form the final yarn.

Give synonyms for the following terms.

5. Bobbin
6. Fluffy
7. Sliver
8. Strand

Answer the following in one sentence each.

9. Define the optional step in the ginning process.
10. What is the use of Bale fibres ?

Complete the sentence.

11. The sliver is fed to -----.
12. Cotton bleaching is done through -----

LETTER WRITING

Letter Inviting Dignitaries

1. As the secretary of English club, write a letter to the Head of the department of English, Anna University, Chennai inviting him to give a guest lecture.
2. As the secretary of Mechanical engineering association of your college, write a letter to the Chief Engineer, Salem steel plant, requesting him to preside over the valedictory function of your association.

Letter Accepting / Declining

3. Assume that you are the District collector of Guindy district and write a letter to the secretary of the students union, Sathyabama University, accepting the invitation to preside over the inaugural function of the students union.
4. Assume that you are the District collector of Guindy and write a letter to the secretary of students union, Sathyabama University, declining the invitation to preside over the inaugural function of the students union.

Letter of Application for a job

5. FCS requires Software Engineers with 3 years experience knowledge in dot.net for an overseas project at its Chennai office. Write a letter of application with a detailed CV to FCS Pvt. Ltd, 15,Nungambakkam High Road,Chennai-20.
6. Respond to the advertisement

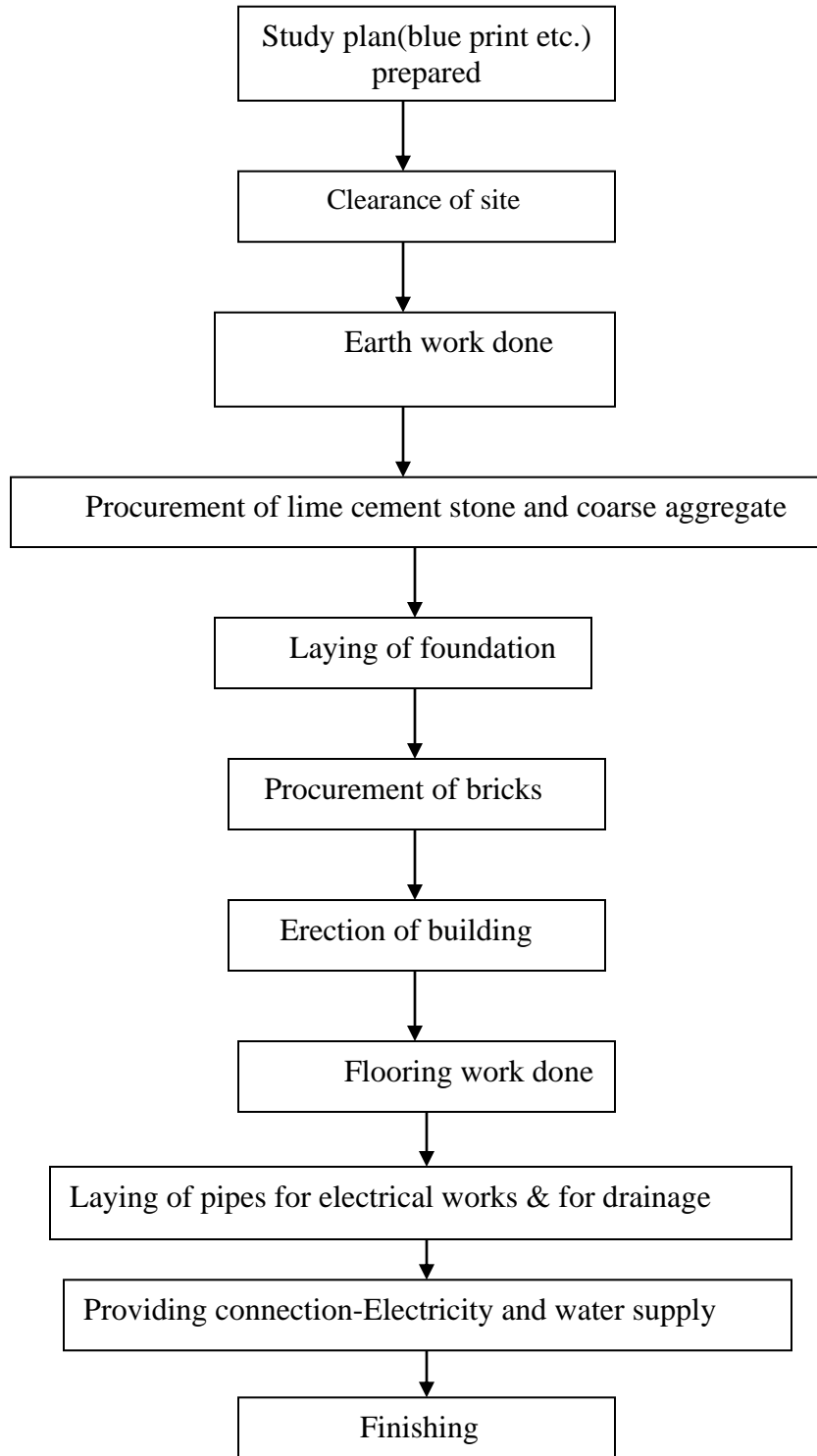
Wanted an efficient electronics engineer with 10 years experience in the field of Communication Systems for the post of Senior Manager . Apply with CV to The General Manager, “ Network Nourishers”, 25, Ashok Nagar, Chennai-47.

Letter to the Editor

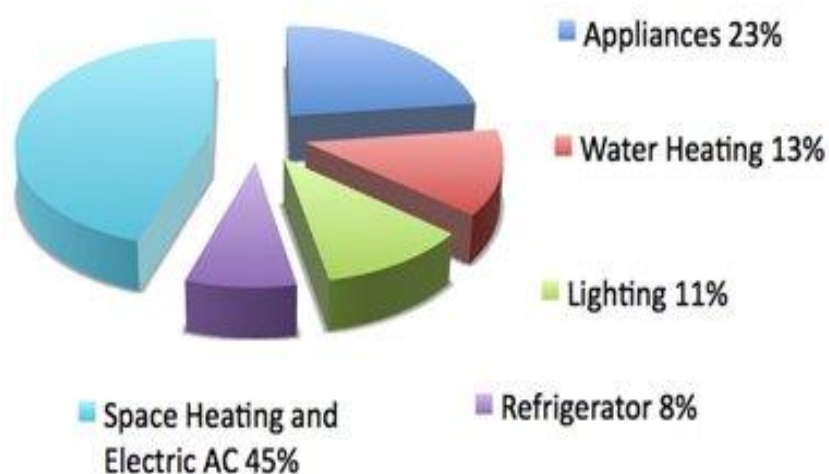
7. Write a letter to the Editor of The Hindu, Chennai-12 complaining about the raising problems by the slum people in the residential areas and suggest suitable solutions.

TRANSCODING-DECODING

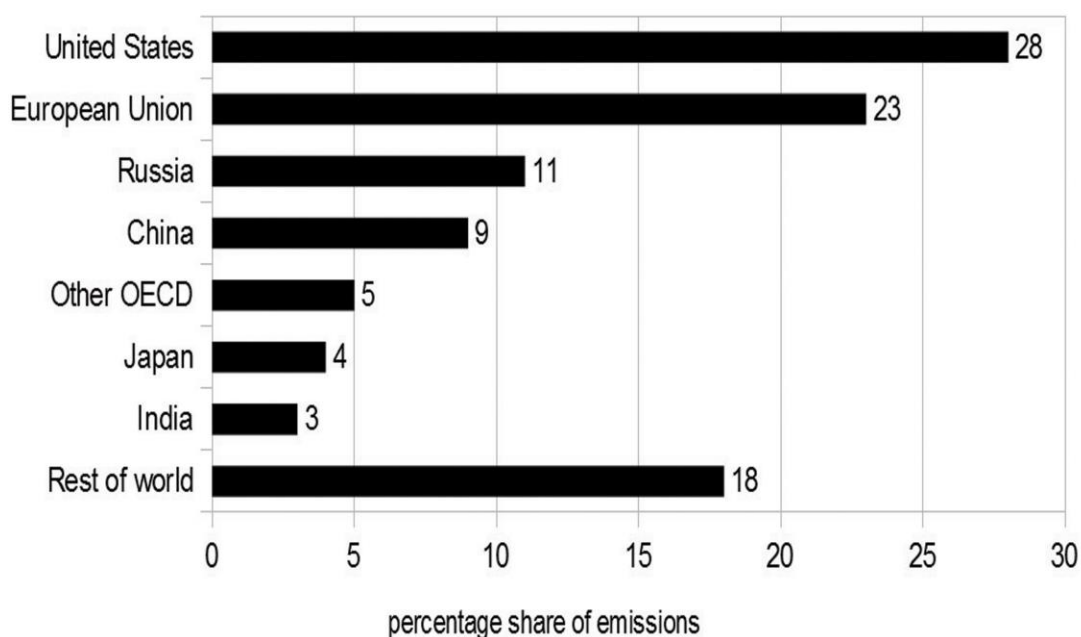
1. Study the flow chart describing the steps involved in the building of a house. Write a description of it.



2. Observe the following pie chart that describes the power consumption of household appliances in a family. Write a paragraph of 200 words describing the chart and also give your suggestions on how to save energy and reduce your energy cost.



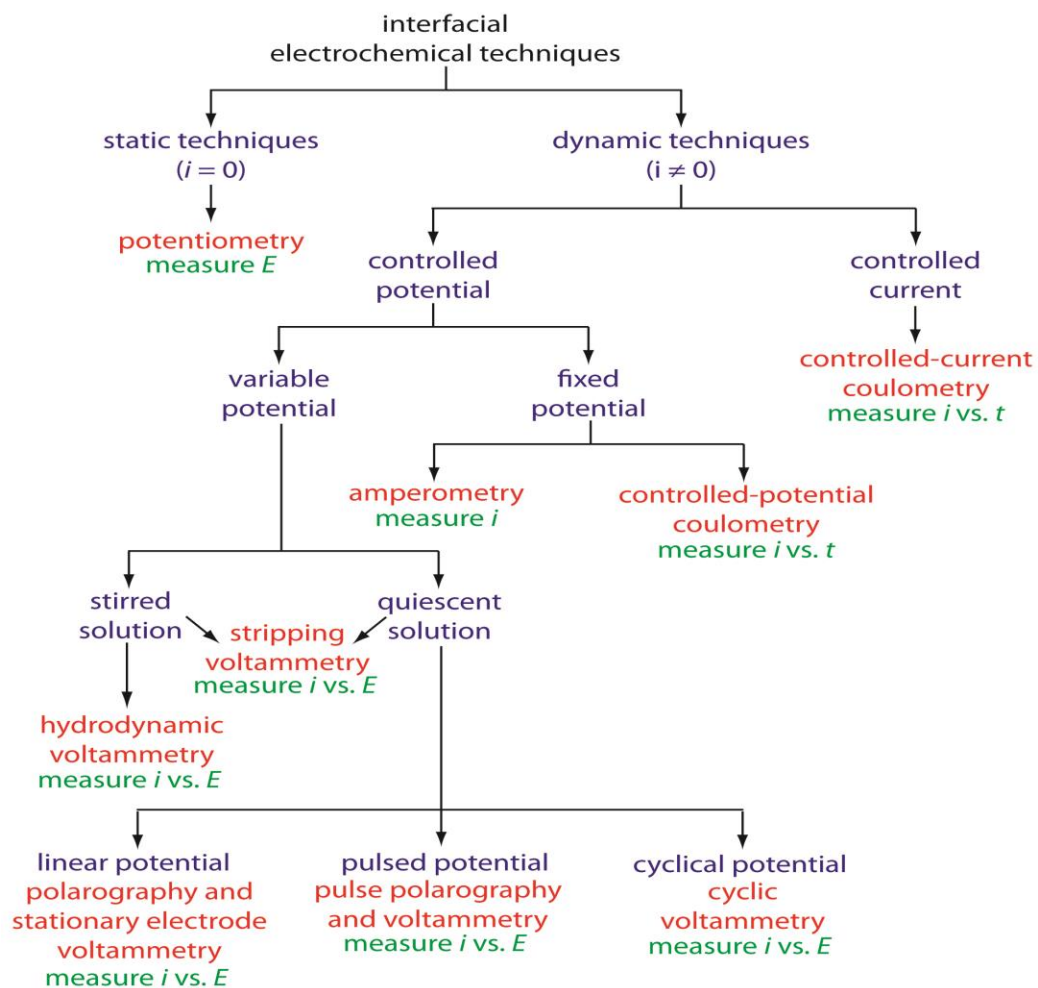
3. Observe the following bar graph that shows contributions for the countries that emitted the most carbon dioxide between 1890 and 2007. Write a paragraph of 200 words using expressions of comparison and contrast.



4. Interpret the following table in 100 words. (Use connectives)

| CHARACTERS | HUMAN BRAIN | COMPUTER |
|-----------------------|-----------------------------|------------------------------|
| 1. Energy source | Blood glucose | Electricity |
| 2. Temperature needed | Fairly steady | Not very sensitive to change |
| 3. Memory | Probably unlimited capacity | Limited by technology |
| 4. Speed | Slow | Extremely fast |
| 5. Accuracy | Normal | Very good |

5. Interpret the tree highlighting a number of interfacial electrochemical techniques in 200 words.



ENCODING

1. Read the following paragraph that describes the process of making paper. Represent the data in a flow chart.

The process of making paper has not changed – at least, fundamentally – since its discovery. But with almost two centuries of improvements and refinements, modern papermaking is a fascinating, high tech industry. Typically, trees used for papermaking are specifically grown and harvested for that purpose. To begin the process, logs are passed through a debarker, where the bark is removed, and through chippers, where spinning blades cut the wood into 1" pieces. Those wood chips are then pressure-cooked with a mixture of water and chemicals in a digester. Used paper is another important source of paper fiber. We recover 40% of all paper used in America for recycling and reuse. The paper is shredded and mixed with water. The pulp is washed, refined, cleaned and sometimes bleached, then turned to slush in the beater. Color dyes, coatings and other additives are mixed in, and the pulp slush is pumped onto a moving wire screen. Computerized sensors and state-of-the-art control equipment monitor each stage of the process. As the pulp travels down the screen, water is drained away and recycled. The resulting crude paper sheet, or web, is squeezed between large rollers to remove most of the remaining water and ensure smoothness and uniform thickness. The semidry web is then run through heated dryer rollers to remove the remaining water. Waste water is carefully cleaned and purified before its release or reuse. Papermakers carefully test for such things as uniformity of color and surface, water resistance, and ink holding ability. The finished paper is then wound into large rolls, which can be 30 feet wide and weigh close to 25 tons. A slitter cuts the paper into smaller, more manageable rolls, and the paper is ready for use.

2. Read the following passage and represent the data in a tree diagram. Give suitable title.

Analog computers are used to process continuous data. Analog computers represent variables by physical quantities. Thus any computer which solve problem by translating physical conditions such as flow, temperature, pressure, angular position or voltage into related mechanical or electrical related circuits as an analog for the physical phenomenon being investigated in general it is a computer which uses an analog quantity and produces analog values as output. Thus an analog computer measures continuously. Analog computers are very much speedy. They produce their results very fast. But their results are approximately correct. All the analog computers are special purpose computers.. Digital computer represents physical quantities with the help of digits or numbers. These numbers are used to perform Arithmetic calculations and also make

logical decision to reach a conclusion, depending on, the data they receive from the user. Various specifically designed computers are with both digital and analog characteristics combining the advantages of analog and digital computers when working as a system. Hybrid computers are being used extensively in process control system where it is necessary to have a close representation with the physical world. The hybrid system provides the good precision that can be attained with analog computers and the greater control that is possible with digital computers, plus the ability to accept the input data in either form. Large scientific and research laboratories as well as the government organizations have extra ordinary demand for processing data which required tremendous processing speed, memory and other services which may not be provided with any other category to meet their needs. Therefore very large computers used are called Super Computers. These computers are extremely expensive and the speed is measured in billions of instructions per second. The most expensive, largest and the most quickest or speedy computer are called mainframe computers. These computers are used in large companies, factories, organizations etc. the mainframe computers are the most expensive computers, they cost more than 20 million rupees. Mini computers are smaller than mainframes, both in size and other facilities such as speed, storage capacity and other services. They are versatile that they can be fitted where ever they are needed. Their speeds are rated between one and fifty million instructions per second (MIPS). They have primary storage in hundred to three hundred megabytes range with direct access storage device. These are the smallest range of computers. They were introduced in the early 70's having less storing space and processing speed. Micro computers of today's are equivalent to the mini computers of yesterday in terms of performing and processing. They are also called "computer of a chip" because its entire circuitry is contained in one tiny chip. The micro computers have a wide range of applications including uses as portable computer that can be plugged into any wall. The smallest computer in size has been developed. This type of small computers look like an office brief case and called "LAPTOP" computer. The laptops are also termed as "portable computers." Due to the small size and light weight, they become popular among the computer users. The businessmen found laptop very useful, during traveling and when they are far away from their desktop computers. A typical laptop computer has all the facilities available in microcomputer. The smallest laptops are called "PALMTOP".

3. Read the following paragraph and represent the data in a tabular column. Give a suitable title

Laptop versus desktop is a dilemma for many users when come the times to buy a new computer. Until recently the issue about choosing between a tower/workstation and a laptop depended on the price you can afford to pay. And then you need to compare laptop and desktop to define a choice. PCs towers have always been the cheaper alternative –usually half the price for the same specs according to the statistics. Since the difference in the price is currently not so big, you should pay more attention to the advantages and disadvantages of each type of system in the laptop versus desktop debate. The main advantage of the laptop is definitely its portability. You can put it into your bag and carry it everywhere. Besides, it has internal power source, i.e. you are not restricted to one place. Since the introduction of wireless broadband, you do not even need a fixed line connection. The laptop can be taken in the office, in bed, on vacation. The drawback that the size has is that the display screens on laptop are usually only 15 inches (17” max). Another disadvantage of the laptops is that they haven’t got enough room for internal fans to cool the main CPU. With the creation of the dual-core CPU laptops can be expected to suffer failures because of overheating most often. Apart from the convenient size and portability, laptops and notebooks have some other significant characteristics which may make you prefer them to towers. First comes the power supply. Desktop computers always have to be plugged into an AC Power outlet. In contrast to them, laptops are equipped with a rechargeable lithium, nickel-cadmium, or nickel-metal hydride battery, which adds to the advantage of portability. Laptop displays are very different from those of desktops since they make use of LCD technology, not a picture-tube. The displays of notebooks are smaller and usually have lower screen resolution but offer better color quality. The integration of input devices also makes a difference when you compare laptop versus desktop computer. The keyboard, you’ll use with a notebook, is situated into the body of the machine. This again contributes to portability but a damaged keyboard can be quite a problem. In fact, the main purposes for which desktop computers and laptops are created are different. Many business people really need to possess a notebook. The major inconvenience with towers is that they are situated at a defined workplace. One benefit certainly is that you can choose the size of the display screen. Moreover, you are free to add whatever extras you want, such as a speaker sound system, a joint printer/fax/copier scanner, a digital camera, DVD system. Another essential feature of a tower is that it is easy to

upgrade. Laptops can be upgraded only by an expert, although there is not much space to add more components. On the contrary, you don't need any expertise to upgrade a tower.

4. Read the following paragraph and represent the data in a bar diagram. Give a suitable title.

As technology is advancing the consumption of power is steadily rising the necessitates that in addition to the existing sources of power other sources of energy should be searched out and more efficient ways of producing energy should be devised. Considering that our country has started generating power in many ways the most important of them are Tidal power, Nuclear power, Wind power, Solar power, Hydroelectric power, cobalt gas plant. A typical Analysis of such of such Indian power plants is made to reveal the power production, Nuclear power stands supreme in generating power than any other sources of energy thought it has various disadvantages, So the highest position is occupied by nuclear power plants and lowest position occupied by tidal power. In production of energy the position of wind power is lower than solar power and hydroelectric power are equal in production of Energy. The status of cobalt gas is better than tidal power but lower than other sources of energy rate of production in India is vividly described in this paragraph.

5. Read the following paragraph and represent the data in a Pie Chart. Give a suitable title

The pie charts compare the highest level of education achieved by women in Someland across two years, 1945 and 1995. It can be clearly seen that women received a much higher level of education in Someland in 1995 than they did in 1945. In 1945 only 30% of women completed their secondary education and 1% went on to a first degree. No women had completed post-graduate studies. This situation had changed radically by 1995. In 1995, 90% of women in Someland had completed secondary education and of those, half had graduated from an initial degree and 20% had gone on to postgraduate studies. At the other end of the scale we can see that by 1995 all girls were completing lower secondary, although 10% ended their schooling at this point. This is in stark contrast with 1945 when only 30% of girls completed primary school, 35% had no schooling at all and 35% only completed the third grade. In conclusion, we can see that in the 50 years from 1945 to 1995 there have been huge positive developments to the education levels of women in Someland.