

COMMUNICATION FOR TECHIES



UNIT- I Listening for Specific Information - Self Introduction - Reading Comprehension - Letter - Application for a job & Resume Preparation - Letter to the Editor - Kinds of Sentences - Parts of Speech-Tenses & its Types - Voice-Active & Passive Concord - Affixes

Warm up: Talk about this:

How do we communicate? How is communication important?

What are the means of communication?

How does the technology facilitate communication?

1.1. Listening for Specific Information: Listen to the citation of **Sundar Pichai**, chief executive officer (CEO) of Google Inc and complete the information in the following table:

Citation of Sundar Pichai, CEO of Google Inc



Pichai Sundararajan, more commonly known to us as, 1. _____ was born in Madurai, in the state of Tamil Nadu, on 2. _____. His father worked as manager in an Electrical Engineer in General Electric that made components for electrical objects in Chennai. His father's anecdotes on work challenges greatly inspired Pichai. At school he was not only good with numbers but also was the captain of his high school cricket team. Pichai graduated in 3. _____ from IIT Kharagpur and completed his MS (Masters in Science) in 4. _____ from Stanford University. He went on to complete an MBA from the Wharton School at the University of Pennsylvania. Sundar Pichai worked for 5. _____ in management consulting during his pre-Google days. He also contributed his talents in engineering and product management at Applied Materials. Pichai joined Google in 6. _____ and is known to have worked on popular products like 7. _____. He also has worked on other products 8. _____ and 9. _____, before Chrome was launched. However, the success of the Toolbar helped Pichai pace his career. Google noticed that the toolbar increased the 10. _____. This eventually led to the start of Google Chrome; Google's very own browser. The man responsible for the smooth ties with partners like Samsung is believed to be Sundar Pichai. 11. _____ was added by Sundar Pichai to the Google products. Sundar Pichai serves as a Member of Board of Advisors at Ruba, Inc. In 2015, Sundar was announced as the new 12. _____ of Google after his brief responsibility as the Google Product Chief.



Hobbies- Free time activities

Reading, painting, drawing
Surfing the internet
Collecting stamps/coins
Listening to music

Shopping
Travelling
Singing, dancing
Camping, hiking

1.2 SELF INTRODUCTION

How do I introduce myself?

- Thank you for giving me this opportunity for introducing myself.
- My name is Georgekutty.
- I am from Ernakulam.
- I completed HSC and SSLC completed from GEM school at Ernakulam.
- I am pursuing my B.E in the stream of computer science from Sathyabama University.
- We are five in my family. My father is a farmer, my mother a housewife and I have elder brothers.
- My **hobbies** are in playing cricket and chess besides watching movies.
- I am **interested** in participating in various social activities.
- My **strength** is positive thinking and adaptability.
- My **weakness** is over thinking about updating myself. And I follow one quotation, that is "If you think you can do it, that's Confidence; If you do it, that's Competence."

Interest

Individual Sport
Team Sport
Tech Hobbies
Social Hobbies
Puzzles

Games

Weakness

Being too critical of myself
Attempting to please everyone
Over thought on constant updation
Too much of a perfectionist
Multitasking, Impulsive

Strengths

Creative,
Enthusiastic
Dedicated,
Disciplined
Patience, Honest,
Respectful, Trustworthy
Determination

1.2.1 Peer-Assessment of your skills

Students interact with one another probing into skill set they require to confront the ethical dilemmas and record their response to the given situation:

Sl. No	Skills	Questions	Responses
1.	Decision Making/ Problem Solving	Tell me about a time when you had to make a quick decision	
2.	Leadership	Give me an example of when you had to lead a group that didn't want to cooperate with you. How did you deal with the situation and were you successful in leading?	
3.	Adaptability	Tell me about a time when your schedule was interrupted, how did you get back on track?	
4.	Problem Solving	Give me an example of when you had to use logic to solve a problem?	
5.	Integrity	Tell me about a time when your classmates were gossiping about you in the class, how did you handle that?	
6.	Interpersonal Skills	Give me an example of making an unpopular decision, what was it, how did you manage it, and what was the result?	
7.	Communication	Describe a time when you had to communicate with someone who didn't like you?	
8.	Motivation/Initiative	Tell me about a time when you went further than the assigned role of responsibility?	

1.3 Focus on Reading: Reading styles

- **Skimming**- Reading rapidly for the main points
- **Scanning**- Reading rapidly through a text to find specific information required
- **Extensive**- Reading longer texts often for pleasure and for an overall understanding
- **Intensive**- Reading shorter texts for detailed information with an emphasis on precise understanding

1.3.1 Identify the reading skills required in the following reading situations:

- The TV guide for Friday evening
- An English grammar book
- An article in Science digest about Telecommunication networking
- A friend's blog on the Internet
- The opinion page in your local newspaper
- A novel
- A poem
- A bus timetable
- A fax from the parent
- An advertising email
- An email or letter from your best friend



- A recipe
- A short story by your favourite author

1.3.2 Pre reading: Match their definition with meaning

Sl. No	Definitions	Meaning
1.	Modulation	recovering the original message signal from the modulated signal
2.	Demodulation	characteristics of carrier signal with varied message
3.	Amplitude modulation	Modulation in the form of digital
4.	Pulse modulation	amplitude of the carrier signal varied with message signal
5.	Digital modulation	carrier signal is in the form of pulse

1.3.3: Focus on Reading: Read the following passage on “Technology and Communicative Systems” and do the tasks that follow:

Communication means sharing one's thoughts with others. It is a bidirectional process. Electronic communication deals with transmission, reception and processing of information by means of electrical signals. Telephone, telex/telegraph systems provide communication of voice and written message from one place to another where it could be stored, processed or retransmitted to other places. The systems that may be thought of as one way communication systems include, analog signals, telephones signals, TV picture signals, radio broadcast signals, telegraph signals, radar signals and data signals, etc. The transmission medium may be a twisted pair of wires, coaxial cable or an optical fibre. If the communication is through air medium, it is called wireless communication. The interaction between communication and computer technology and the application of satellites and fibre optics in communication systems has brought rapid growth in the communication systems.

Modulation:

Modulation is the process whereby some characteristic of one wave is varied in accordance with some characteristic of another wave. Modulation is the process of converting the low frequency information signal into a high frequency signal. This is to enable the information bearing signal to be transmitted over the long distance. In this process the low frequency information signal (modulating signal) modulates the parameters of the high frequency signal (carrier signal) such as amplitude, frequency and phase angle. The resultant signal is called modulated signal. Modulation reduces the size of the antenna. It also enables multiplexing i.e. it enables the transmission of different modulated signals at different carrier frequencies through a common channel. Demodulation is the reverse of the modulation process. It is the process of recovering the signal from the modulated carrier wave. The basic types of modulation are analogue modulation, pulse modulation and digital modulation.

Answer the following questions:

1. Mention some one way communication systems.
2. What do you understand about wireless communication?
3. Do you think that the rapid growth in the communication system brings a lot of change in the future? Mention some changes that might occur by 2050.

4. What is your opinion about the systems available to send transmission to long distances?
5. Define modulation.
6. What is the difference between modulation and demodulation?
7. What are the difficulties in transmission of communication to long distances? What is the solution?
8. What are the basic types of modulation?
9. Mention the users of wireless communication.
10. What is the difference between one to one communication and communication through systems?

1.3.4 Read the following passage and answer the questions given below:



The invention of the electric telegraph gave birth to the communications industry. Although Samuel B. Morse succeeded in making the invention useful in 1837, it was not until 1843 that the first important telegraph line was constructed. By the year 1860 more than 50,000 miles of lines connected people east of the Rockies. The following year, San Francisco was added to the network.

The national telegraph network strengthened the ties between East and West and contributed to the rapid expansion of the railroads by providing an efficient means to monitor schedules and routes. Furthermore, the extension of the telegraph, combined with the invention of the steam-driven rotary printing press by Richard M. Hoe in 1846, revolutionized the world of journalism. Where the business of news gathering had been dependent upon the mail and on hand-operated presses, the telegraph expanded the amount of information a newspaper could supply and

allowed for timelier reporting. The establishment of the Associated Press as a central wire service in 1846 marked the arrival of a new era in journalism.

I. Answer the following in a sentence or two:

1. What is the main topic of the passage ?
2. How did the telegraph enhance the business of news gathering?
3. What is the author's main purpose?
4. What is the role of Morse in the communication revolution?

II. State whether the following statements are True or False:

5. Morse invented the telegraph in 1837.
6. People could use the telegraph in San Francisco in 1861.
7. The telegraph led to the invention of the rotary printing press.
8. The telegraph helped connect the entire nation.

III. Choose the right option:

9. The word "gathering" in the passage refers to .
a. people b. information c. objects d. substances
10. It can be inferred from the passage that .
a. Samuel Morse did not make a significant contribution to the communications industry
b. Morse's invention did not immediately achieve its full potential
c. the extension of the telegraph was more important than its invention
d. journalists have the Associated Press to thank for the birth of the communications industry

1.4 Focus on Writing: Letter Writing

1.4.1 Editing:

Do you like getting letters from your friends? How many of you still get letters? Read the following notes on letter writing and correct the mistakes of the passage in the box:

Letters is of tow types. There are For mail letters and informal letters. Both r usefool for communicating information. Informal latter we rite to our fried, famous members like parents, sisters etc. Formal latter wi rite to superiors, employiis and never knwon offices etc. Under stand the same by redding the following:

- | | |
|----------------------------------|---|
| 1. Writing Formal Letters | Letters for various functions
(a) Applying for a job
(b) Inviting
(c) accepting/declining an invitation
(d) asking permission to visit industry |
| 2. Writing Letters to the Editor | (a) congratulating
(b) criticizing
(c) discussing social problems |



Please notice that formal letters contain the following:

1. **Sender's Address:** The writer's typed name and address.
2. **Date Line:** The month, day and year
3. **Recipient's Address:** The name and address of the person to whom the letter is being sent.
4. **Salutation:** An opening greeting such as *Dear Ms. Jones*.
5. **Body:** The text of the letter.
6. **Complimentary Closing:** A closing to the letter such as *sincerely* or *Yours truly*.
7. **Signature:** The writer's signature.

1.4.2: Focus on language:

The following are some the words we come across in letter writing: Could you add more words to the list given below?

VOCABULARY

- | | | | |
|-------------------------|-----------------------|---------------|--------------------------|
| a) C V /Resume | b) Covering letter | c) vital | d) unique selling points |
| e) Human Resources (HR) | f) Speculative letter | g) convincing | |
| h) vacancy | i) targeted letter | | |

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Sample Letter: Job Application

Anand

789 White house Road,
Gandhi Nagar,
Chennai 600 009, India
Email: xxx@aol.com
Phone: 91-80-45679987
20 September 20____

Manager-HR
ABC Company
Mysore, India

Respected Sir,

Sub: Application for the post of Software Engineer – reg

This is with reference to your advertisement for “Software Engineer” in the “Employment News” dated 17 September 20____. I am interested in the opportunity advertised at your company for the Technical position. I hold a degree in Computer Science and Engineering, from Sathyabama University, Chennai. As a graduate student, I designed a computer that could work on solar energy. I have strong background in computer aided design, software development and engineering. I believe that these skills would benefit the designing and manufacturing aspects of software. It would give me immense pleasure to be associated with a fast-growing company like yours. I am convinced that I am particularly well suited to meet the challenges of the work in this field. Enclosed is my resume which further outlines my qualifications.

I look forward to hear from you soon.

Thank You,
Yours faithfully ,
(Signature)

Anand



RESUME SAMPLE

Anand

789 White house Road,
Gandhi Nagar,
Chennai 600 009, India
Email: xxx@yahoo.com
Phone: 91-80-45679987

CAREER STATEMENT

To seek a challenging and rewarding opportunity in an organization of repute that recognizes and utilizes my potential while constantly upgrading my knowledge and skills.

EDUCATIONAL QUALIFICATION

- Completed **Bachelor in Engineering** in Computer Science from Sathyabama University, Chennai in May 20__
CGPA: 3.20
- Passed HSC, held by State Board of Higher Secondary Education, Bentik School, April 20__
Percentage: 94.7%
- Passed SSLC, held by State Board of Secondary Education, Bentik School, April 20__
Percentage: 96.8%

PROJECT WORK

Designed Solar powered computer circuits that could work on solar energy. It is a system intended to fit every common man's energy needs and budget.

COMPUTER SKILLS

Microsoft Office, AutoCAD, MathCAD, Maple, MS Project

ACHIEVEMENTS

- Worked as Secretary for Computing Club at Sathyabama University, June 20_ to May 20_
- Won Judo-Karate competitions in school, Feb 20_
- Won best Outgoing student award during graduation, April 20_

EXTRA-CURRICULAR ACTIVITIES

- Attended technical workshop *Ethical Hacking* at JD College of Engineering, Cochin.

- Participated actively in *Sky Observation seminar* held at AS College of Engineering, Hyderabad.
- Participated in *WIZKID-20____* at IIT Madras.

AWARDS

- Best Project Award– 20____. Dept of Computer Science, Sathyabama University.
- Silver Medalist at the International Mathematical Olympiad at school, Feb 20____

CERTIFICATIONS

- A six month course in C, C++ and Java from the *National Computing Agency*, July-Dec 20____
- A two month certification in multi-media and animation from *Animation Tools*, Feb-March 20____
- *Communication skills* workshops conducted by the British Council, Chennai. 11th -18th April 20____

PERSONAL DETAILS

- **Languages Known:** Hindi, Tamil, English
- **DOB:** MM/DD/YYYY
- **Gender:** Male
- **Nationality:** Indian
- **Strength:** Ambitious, Committed and Optimistic.
- **Hobbies:** Travelling & Photography

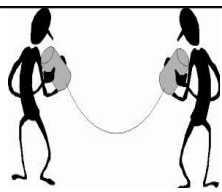
REFERENCES

Dr. Agnes
Prof & Head
Department of Computer Science
Sathyabama University

Respond to the advertisement :

Wanted an efficient Mechanical Engineer with 5 years experience in the field of Automobile for the post of Senior Manager . Apply with CV to The General Manager, “ Honda Motors India”, 25, Gandhi Nagar, Chennai-32.

1.4.6: Pair work: Remember mock interview is the best way to prepare for an interview or else you may **feel like a fish out of water**. Take the opportunity and conduct mock interview your friend based on the sample resume given below. Acknowledgment: Sripada, Pushpanagini English for Engineers, unpublished book.

<p>ROLE CARD 1: – INTERVIEWEE</p>  <p>Name: Mobile: email:</p> <p>Career Objective Self-motivated and hardworking fresher seeking for an opportunity to work in a challenging environment to prove my skills and utilize my knowledge & intelligence in the growth of organization.</p> <p>Key Skills: Language: C, C++, Core JAVA, Adv JAVA, C# and ASP.NET. Database: MySQL, PL/SQL, Oracle 9i. Operating Systems: MS DOS, Windows 98/2000/xp.</p> <p>Strengths: Excellent communication skill. Ability to grasp the new skills quickly. Hard –working Excellent knowledge of Core subjects.</p> <p>Academic Qualification: B.Tech (IT) from “XYZ University” with 79% in 20**. HSC from xyz school, CBSE board with 76% in 20**.</p> <p>Academic Projects Undertaken: Project: Enterprise Reporting System</p> <p>Achievements: Secured first position in HSC Board exams at School. Won prizes in singing and dancing competitions.</p> <p>Extra-Curricular Activities Participated in various sports events. Participated in Annual Sports Day at school. Participated in various cultural events in School and Colleges.</p> <p>Hobbies: Table Tennis. Carom. Blog writing on internet. Web Searching</p>	<p>ROLE CARD 2: INTERVIEWER</p> <ol style="list-style-type: none"> 1. Tell me something about yourself? 2. Where did you study? 3. What activities did you undertake? 4. What are your strengths? 5. What was your project in BE? 6. Have you done any mini-projects? 7. Could you tell me some of your achievements? 8. Have you faced any stressful situation? How did you handle it? 9. If you are given an opportunity to work in our organization how much salary you are expecting? 10. Which sports do you like best? Why?
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1.5. Letter to the Editor

1.5.1 Read the letter to the editor on Ecological tourism and choose the apt verb:



Topic area- Ecological tourism

Dear Sir,

As someone who _1_ (has/have) travelled throughout Asia on business and holiday I would like to give my _2_ (view/views) on its environmental impact. Having visited Indonesia, Thailand and Malaysia I _3_ (understand/understands) that tourism can bring money to developing countries. However, this money often _4_ (go/goes) into the pockets of foreign investors, and only rarely benefits local people. Multinational hotel chains also _5_ (has/have) little regard for the surrounding wildlife when they build new resorts. This can cause many problems. In view of these _6_ (fact/facts) we, as tourists, can directly _7_ (affect/affects) these countries in a positive way if we are thoughtful. When we visit these countries we can visit restaurants and hotels that _8_ (is/are) owned by local people. In addition, we can refuse to give luxury resorts our patronage and therefore prevent them from becoming even larger. Most importantly we should check that any tours or excursions we take have minimal _9_ (effect/effects) on the natural surroundings. Finally, we can even attempt to change the _10_ (behaviour/behaviours) of other tourists by sharing our opinions. If we follow these simple steps we can be sure that our pleasure is not causing any harm to people or places that we visit.

Respects

Richard

1.5.2 Outline of the Letter:

Read the above letter and fill the blanks:

Subject:

Introductory line refers to:

The writer openly attacks: _____ and speaks for _____

Suggestions to the tourists:

1. Patronage only _____
2. Don't visit _____
3. Save _____

Conclusion: What can be achieved _____

1.5.3. Read the following hints and write a letter to the editor of The Hindu on 'Unauthorized encroachment on Roads'. Choose three problem areas and make suggestions. Follow the outline of the letter and the expressions given in the letter on "Ecological Tourism."



1. **Shops on the service lane** : extended premises in front of the shops – service lanes
2. **Street vendors**: many shopkeepers block the roads including the footpath on the streets
3. **Illegal parking**: Private heavy trucks laden with goods - tar roads with pits and potholes
4. **Dumping grounds**: roads have turned into a dumping ground- heaps of dirt and litter all around

5. Unsafe roads- pools of dirty water gather during the rainy reason- encroachment on water bodies

6. Breeding ground: in stagnant water- mosquitoes breed on them- water borne disease and spread

7. Sign boards: 'no parking' boards to be erected

8. Lack of policing: illegal parking- penalized and immediately removed

1.6. Kinds of Sentences - Assertive, Imperative, Interrogative, Exclamatory

A group of words that makes complete sense is called a **sentence**.

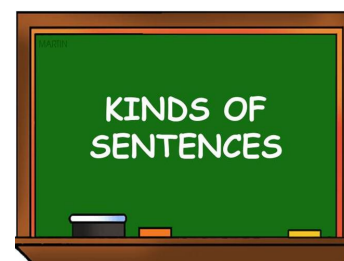
Example:

Metaphor for a computing is the Internet cloud. (makes no sense, therefore it is not a sentence)

Cloud computing is a metaphor for the Internet. (makes complete sense, therefore it is a sentence)

There are four kinds of sentences:

1. Assertive or declarative sentence (a statement)
2. Imperative sentence (a command)
3. Interrogative sentence (a question)
4. Exclamatory sentence (an exclamation)



1. An assertive sentence is a sentence that states a fact. Such sentences are simple statements. They state, assert, or declare something.

Examples:

Cloud computing uses connected hardware machines called servers.

2. Imperative sentence is a sentence which gives a command, makes a request, or expresses a wish.

Examples:

Perform any computing task. (an order)

Please ensure the security of the data stored on the remote machines. (a request)

Hope with cloud computing, I can now run the application from anywhere in the world. (a wish)

3. Exclamatory sentence is a sentence that expresses sudden and strong feelings, such as surprise, wonder, pity, sympathy, happiness, or gratitude.

Example:

What a transformation to the entire computer industry!

Boy, am I tired!

4. Interrogative sentence: A sentence that asks a question is called an interrogative sentence.

Examples:

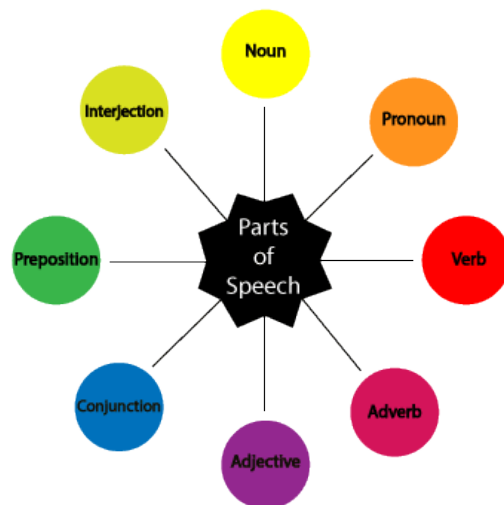
Is it safe to store one's data on someone else's computer?

Does cloud computing offer an economical model for businesses?

1.6.1: Writing Different kinds of Sentences

A. Suppose you could meet one of the great inventors, such as Thomas Edison. Write what you might say in that situation. Use at least one of each kind of sentence: declarative, interrogative, imperative, and exclamatory. Use correct punctuation at the end of each sentence.

B. Choose a character in a book you have read or a movie you have seen. Pretend to be that character, and write a diary entry for one day in that character's life. Use at least one of each kind of sentence: declarative, interrogative, imperative, and exclamatory. Use the correct punctuation at the end of each sentence.



1.7 Elements of Writing: Parts of Speech

Sl.No	part of speech	function or "job"	example words	example sentences
1.	Verb	action or state	(to) be, have, do, like, work, sing, can, must	Littwit is a website. I like English Club.
2.	Noun	person, place, thing, or idea	Diesel, work, music, town, Chennai, teacher, John	Diesel Costs less than Petrol.
3.	Adjective	modifies or describes a noun or pronoun	good, big, red, well, interesting, costlier	Petrol is costlier than Diesel.

4.	Adverb	modifies or describes a verb, adjective or another adverb	quickly, longer, silently, well, badly, very, really	A day on Mars is slightly longer than the day on earth.
5.	Pronoun	used in place of a noun	I, you, he, she, we, they, it	Tara is an Indian. She is beautiful.
6.	Preposition	placed before a noun or pronoun to form a phrase modifying another word in the sentence	to, at, after, on, but, by, with, about, until	Thinking ahead is the privilege given to man alone.
7.	Conjunction	joins clauses or sentences or words	For, and, nor, but, or, yet, so when, while, because	Man learns from past experience, analyses the present and plans for the future.
8.	Interjection	short exclamation, sometimes inserted into a sentence	oh!, ouch!, hi!, well	Ouch! That hurts! Hi! How are you? Well , I don't know.

1.7.1 Identify the parts of speech of the underlined words

1. Chose your path carefully, 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! Are you one of them?"
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.

1.7.2 Fill in the blanks with appropriate parts of speech:

Any technology should be developed _____ (of/to/for) cater _____ to the basic needs _____ people _____ (who/whom/whose) are poor financially. The technologies available now are not concerned _____ (with/like/in) the small-scale industries. They should lie somewhere _____ (about/around/between) the old (and/beside/but) _____ the modern ones so that they can be applied _____ (to/from/in) a variety _____ (out/of/off) needs to the village folk.

1.8 Tenses and its types



Sl.No	Name of the tense	Signal Words	Form	Example	Common Uses
1	Simple Present Tense	Everyday, Sometimes , Always, often, usually, seldom, never, first...then	He/she/it V+S	He cooks dinner everyday. The bus leaves tonight at 10 pm.	1. <i>Habitual actions.</i> 2. <i>Facts / Truth</i> 3. <i>Scheduled future events</i>
2	Present Continuous Tense	Now, at the moment,	Be(am/are/is) +V+ ing	He is working in a bank.	1. <i>Activities happening now.</i> 2. <i>Activities in the near future</i>
3	Present Perfect	Just, yet, never, ever, already, so far, up to now, since, for , recently	regular: has/have + V + ed	I have lost my wallet. I have been a teacher for more than 10 years.	1. <i>Past action with result in the present.</i> 2. <i>Action started in past and continues to the present.</i>
4	Present Perfect Continuous	All day, the whole day, how long, since, for	has/have + been + V.. ing	I have been waiting here for two hours I'm tired because I've been running.	1. <i>Action started in past and continues to the present(stress on duration)</i> 2. <i>Action from the past, but recently stopped (result seen)</i>
5	Simple Past Tense	Last, ago, In 2000, yesterday	Regular verb+ed	She went to Paris last week.	1. <i>Action at a definite moment in past</i>
6	Past Continuous	when, while, as long as	was/were + V-ing	I was watching TV when he called. I was studying while she was making dinner.	1. <i>Interrupted action in the past.</i> 2. <i>Parallel actions at the same time</i>
7	Past Perfect	already, just, never, not yet, once, until that day	had + V+ed	I'd (had) already eaten before they came.	1. <i>Completed action before something</i>
8	Past Perfect Continuous		had been + V-ing + for... before...	They had been talking for over an hour before Tony arrived.	1. <i>To express the duration of a continuous activity begun before another activity in the past.</i>
9	Simple Future	in a year, next ..., tomorrow	shall/will + V	I will meet you at the airport tomorrow. I will call you when I arrive.	1. <i>Decisions made at the moment about the future, future predictions, future promises.</i>

1.8.1 Fill in the blanks with correct form of the verb given in the 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).



1.9 ACTIVE & PASSIVE VOICE

Active Voice: The term active voice refers to a type of sentence or clause in which the subject performs or causes the action expressed by the verb: *Subject + first form of the verb + object*

E.g. The doctor wrote a prescription.

Passive Voice: The term passive voice refers to a type of sentence or clause in which the subject receives the action of the verb: *Object of the active sentence + is/am/are + past participle form of the verb + by + subject of the active sentence.*

E.g. The prescription was written by the doctor.

Impersonal Passive: is used when the doer is not focused. The phrase **It is said ...** is an impersonal passive construction. We often use it in news.

Eg: It is said that children are afraid of ghosts. / Children are said to be afraid of ghosts.

Tense	Active	Passive
Simple Present	China produces thousands of electronic devices every year	Thousands of electronic devices are produced by china every year
Present Continuous	Life-science companies are employing various methods to control the global bio-industrial markets.	Various methods are being employed by life-science companies to control the global bio-industrial markets.
Simple Past	The crew found the meteorological	The meteorological information was found

	information very useful.	very useful by the crew.
Past Continuous	The salesman was helping the customer when the thief came into the store.	The customer was being helped by the salesman when the thief came into the store.
Present Perfect	Artificial intelligence has made today's computers very efficient	Today's computers have been made very efficient by artificial intelligence.
Present Perfect Continuous	Recently, John has been doing the work.	Recently, the work has been being done by John.
Past Perfect	George had repaired many cars before he received his mechanic's license.	Many cars had been repaired by George before he received his mechanic's license.
Past Perfect Continuous	NASA had been using a robot to explore oil spurts.	A robot had been being used to explore oil spurts by NASA.
Simple Future <i>will</i>	Someone will finish the work by 5:00 PM.	The work will be finished by 5:00 PM.
Future Continuous <i>will</i>	Everyone will be using internet to communicate in future.	Everyone will be being used to internet to communicate in future.
Future Perfect <i>will</i>	They will have completed the project before the deadline.	The project will have been completed before the deadline.

(i) Changing an assertive sentence into the passive

Active: We *love* our country.

Passive: Our country *is loved* by us.

(ii) Changing a negative sentence into the passive

Active: I *did not write* that letter.

Passive: That letter *was not written* by me.

Active: She *does not abuse* her servants.
her.

Passive: Her servants *are not abused* by

(iii) Changing an interrogative sentence into the passive

Structure: Is/are/am + object of the active verb + past participle form of the verb + by + subject of the passive verb

Active: Who *does not obey* you?

Passive: *By whom* are you not obeyed?

Active: Which newspaper *do you read*?

Passive: Which newspaper *is read* by you?

Active: Does she *do her duty*?

Passive: *Is her duty done* by her?

(iv) Changing an imperative sentence into the passive

Open the door.

Let the door be opened.

Complete the work.

Let the work be completed.

Turn off the television.

Let the television be tuned off.

(v) No Passive

Intransitive verbs cannot be changed to passive. The object of the active verb becomes the subject of the passive verb. Therefore, sentences which do not have an object cannot be changed into the passive. For instance,

- The old man sat in a corner.
- The child sleeps.
- He laughed aloud.

Sentences of the following tenses cannot be changed to the passive form

Present perfect continuous tense	Past perfect continuous tense
Future continuous tense	Future perfect continuous tense

1.9.1. Transform the following sentences into passive voice:

- a) China produces thousands of electronic devices every year.
- b) NASA has used a robot to explore oil spurts.
- c) The auditors are checking the accounts.
- d) The crew found the meteorological information very useful.
- e) Plastic engine components consume less power.

1.9.2. Transform the following sentences into active voice:

- a) The art of coin making was developing by the Greeks.
- b) Many faults have been ascribed to dams by people.
- c) This pump can be maintained by the users themselves
- d) The laboratory was being cleaned by the workers.
- e) The blueprint has been prepared by the engineers.

1.9.3. Transform the following into impersonal passive:

- a) Avoid cell phone while driving.
- b) Save enough money for future.
- c) Place the beaker on the desk.
- d) Apply science to solve human problems.
- e) Treat water chemically.



1.10 CONCORD Focus on Form: Subject Verb Agreement

Subject-verb agreement is a grammatical rule that states that the verb must agree in number with its subject.

Follow the clues given for Subject verb Agreement to choose the right option in column 'C':

SUBJECT (A)	VERB(B)	ACTIVITY (C)
Singular- Noun/Pronoun Plural - Noun/Pronoun	Singular Plural	1. The practice of using pigeons and birds to carry mail is ancient. 2. In 2900 B.C., in Egypt, pigeons was/ were released by incoming ships as an announcement of important visitors.
Plural in form but are singular in meaning Singular in form but are Plural in meaning	Singular Plural	3. The news looks/ look good today. 4. The phenomena/ phenomenon of using pigeons to carry messages in military service and in financial industry are generally called "pigeon post".
Two or more subjects refer to the same person / thing Subjects referring to two different people/ things	Singular Plural	5. A carrier pigeon or messenger pigeon is/ are a homing pigeon that is used to carry messages. 6. The birds that served in the war was /were the carrier pigeons and the racing pigeons.
each, each one, either, neither everybody, nobody everyone, no one everything, nothing	Singular	9. Everyone know/ knows the usage of pigeons as postal messengers in ancient India and Egypt.
Who that which	Singular/ Plural (depends on the noun)	10. During the Dark Ages the Arabs established regular airmail pigeon courier service/services which could fetch one thousand gold pieces.
Either...or Neither...nor Not only...but also	Singular/ Plural (subject nearer to the verb)	11. The Pigeons were not only used in all important European countries but they also was/were used by the Mughals.
as well as, as much as more than, rather than, besides, together with accompanied by, with	Singular/Plural (agrees with the subject)	12. Pigeon post is used to refer to physical items of mail besides referring to the system that use/uses to transport them.
Fifty rupees, two weeks, three miles, two-thirds(fractions)	Singular verb	13. The success rate of the Pigeons in the in WW II missions is/are calculated as ninety-eight percentage.

here ,there this, that, these , those	Singular/Pl ural	14.Those governments was/were of the view that destruction of those pigeons was a serious offense
pair of shoes, pants, trousers	Singular	15.A pair scissors was/were used to cut the feathers of birds.

1.10.1 Choose the right option:

1. Communication _____(is/are) defined as the sending and receiving of information or messages.
2. Communication takes place when the information _____ (is/are) sent and received by the intended audience in such a way that it is understood.
3. Prehistoric cave drawings _____(is/are) considered the first form of human communication.
4. In ancient times, Cave dwellers in their homes_____ (drew/drawn) pictures on the walls to convey rituals or ideas.
5. Samuel Morse, the American inventor and scientist, _____(has/have) transformed speech into electric signals and then into written words, known as Telegraph.
6. One of the most widely used forms of graphical communication _____(is/are) the drawing.
7. Smart Meter and wireless communications _____(is/are) neither smart nor safe.
8. The language of pictures gave way to letters, which _____(is/are) graphic representations of particular sounds.
9. Technological changes _____(come/comes) when the necessity arrives for them.
10. The invention of the telegraph, as well as, telephone _____(is/are) the inspiration for further advances in communication technology that has taken place so far.
11. Internet use continues to _____(grow/grows) steadily, at 6.6% globally in 2014.
12. A pair of active noise cancelling headphones _____(work/works) to eliminate background noise especially in hazardous, high noise environments.
13. Among a few technological advancements which _____(has/have) changed our lives comprises the introduction of smart phones.
14. Some of the major threats in telecommunication industry _____(include/includes) network security and digital ecosystem.
- 15.Chinese _____ (has/have) about 30,000 characters



1.11 Affixes

Prefix: A prefix is a word part added to the beginning of a root word. It changes the meaning of a word

Suffix: A suffix is a word part added to the end of a root word. It changes the Parts of Speech and also the meaning of a word.



of

Common Prefixes: Pre... Multi... Inter... Post... sub... super... ante... Kilo... Maxi...
Mega... Micro... mid... milli... mini... mis... mono... multi... non... out... over ... post...
pre... pro... quad... re... sub... Super... tele... trans... tri... ultra... un... uni... a...
Anglo... ante... anti... auto... bi... cent... centi... circum... co... con... contra... counter...
de... deci... dis... ex... extra... fore... in... il... im... ir... inter...
Negative Prefixes : mis... dis... il... ir... un... im... ex...

Common Suffixes: ... ment ... tion... ion... sion ... ness ... hood ... ty ... ity ... ence ...
ance... ism ... age ... ship... er... or... ee ... ist ... ant... an... ian...at ...fy...ise...
ize ...ate ...ing ...en...ed...ly...ily ...lly ...al...ical ...ible ...ive...tive ...tive...able
...less...ous...ate...ish...ent...ful...ious...ic...y...ory...ern...ky...ly...tic

- **Nouns** are formed by the addition of suffixes such as – **ion –tion –sion –ation –ition –ment –ance –ence –or –er –ity –logy –meter –metry** Ex: Calculation, omission, clearance
- **Verbs** are formed by the addition of – **ize, – ate, – ify**. All these verb endings approximately have the same meaning. Ex: Specialize, activate, beautify
- **Adjectives** are formed by the addition of suffixes such as –**al, – ic, – ical, –ar, – ary, –ory, –ing, – ive, –ful, etc.** Ex: Refusal, historic, youthful

1.11.1) Use suitable affixes and write new words :- ment... hood... ion...ed...ly...ness...ful...
ce...able... non...un...in...mis...ir...dis...ed...ity ...ing

measure	instruct	child	develop	equal	polite
success	different	knowledge	kind	lucky	ability
stop	cooperate	interest	equal	regular	fortune

1.11.2) Give the nouns of the following by adding tion, cy, ity, or, ness.

Calculate

Thick

Sincere

Delicate

Elevate.

1.11.3) 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.

1.11.4) 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)

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

Noun	Adjective	Verb	Adverb
1. _____	_____	admire	_____
2. advertisement	_____	_____	_____
3. _____	Alternative	_____	_____
4. _____	_____	_____	reflectively
5. calculation	_____	_____	_____
6. Generation	_____	_____	_____
7. _____	_____	_____	Verbally
8. _____	Stagnant	_____	_____
9. _____	_____	_____	Fractionally
10. _____	deviation	_____	_____

1.11.6) Write noun forms to the following words:

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

1.11.7) Add suitable prefixes/suffixes according to the given meanings:

- (a)conductivity = property of having zero electrical conductivity.
- (b)tension = abnormal blood pressure.
- (c) conserve.....= process of preserving.
- (d) industry.....= of industries.
- (e) techno =fear of technology.

Pichai Sundararajan, more commonly known to us as, 1. **Sundar Pichai** was born in Madurai, in the state of Tamil Nadu, on 2. **July 12, 1972**. His father worked as manager in an Electrical Engineer in General Electric that made components for electrical objects in Chennai. His father's anecdotes on work challenges greatly inspired Pitchai. At school he was not only good with numbers but also was the captain of his high school cricket team. Pichai graduated in 3. **Metallurgical Engineering** from IIT Kharagpur and completed his MS (Masters in Science) in 4. **Material sciences and Engineering** from Stanford University. He went on to complete an MBA from the Wharton School at the University of Pennsylvania.

Sundar Pichai worked for 5. **McKinsey & Company** in management consulting during his pre-Google days. He also contributed his talents in engineering and product management at Applied Materials. Pichai joined Google in 6. **2004** and is known to have worked on popular products like 7. **Toolbar**. He also has worked on other products 8. **Google Gears** and 9. **Google Pack**, before Chrome was launched. However, the success of the Toolbar helped Pichai pace his career. Google noticed that the toolbar increased the 10. **user searches**. This eventually led to the start of Google Chrome; Google's very own browser.

The man responsible for the smooth ties with partners like Samsung is believed to be Sundar Pichai. 11. **Android** was added by Sundar Pichai to the Google products. Sundar Pichai serves as a Member of Board of Advisors at Ruba, Inc. In 2015, Sundar was announced as the new 12. **CEO** of Google after his brief responsibility as the Google Product Chief.