

## Check List

The purpose of a checklist is to ensure that everything is properly done before any important activity. The checklist is prepared for personal usage before one embarks on some significant work or it is prepared in establishments before launching on a project/work. In writing the checklist, interrogative form is used. After each question YES or NO boxes should be given- the chief objective is to make sure whether the particular activity has been accomplished or not.

Begin the questions with auxiliaries such as **Is, Are, Do, Does, Has and Have**. This should be followed by the subject.

e.g Have I taken all the documents?

- 1. ImaginethatyouhavetogotoIITBombayforapaperpresentation.Makeaneightitem checklistwithaproperitleforyourreference.**

### Checklist for IIT Bombay paper presentation

S. no.	Checklist	Yes	No
1.	Have I reserved the tickets?	√	
2.	Have I made arrangements for accommodation?	√	
3.	Have I taken the ID proof?	√	
4.	Have I printed the paper to be presented?	√	
5.	Have I prepared the PPT slides for the presentation?	√	
6.	Have I taken the address of the venue?	√	
7.	Have I withdrawn enough money?	√	
8.	Have I packed the necessary dresses?	√	

**2. WRITE A SET OF EIGHT CHECKLISTS TO BE CHECKED BEFORE ARRANGING A CONFERENCE:**

Have I arranged the seating?	Yes	No
Have I arranged the audio visual?	Yes	No
Have I arranged the decoration?	Yes	No
Have I arranged the various committees?	Yes	No
Have I invited the chief guest?	Yes	No
Have I sent invitation to all colleges?	Yes	No
Are the certificates arranged?	Yes	No
Do I prepare the topics for paper presentations?	Yes	No
Have I bought the mementoes for chief guest?	Yes	No
Have I arranged the MC?	Yes	No

**3. Imagine that you have to go to Bangalore to attend an interview. Make an Eight-item checklist with a proper title for your own reference.**

**Checklist for an Interview**

Have I taken the ticket?	Yes	No
Have I taken all the certificates & testimonials?	Yes	No
Have I taken the interview call letter?	Yes	No
Are all the certificates arranged properly for easy reference?	Yes	No

Do I have a set of formal wear neatly packed? Yes No

Have I taken my project report? Yes No

Do I have enough money? Yes No

Do I have my Bangalore friend's contact number and address? Yes No

**4. You have decided to go on a weeklong tour with all your family members. Prepare a checklist that consists of eight items that are to be checked before you leave the house.**

Have I booked the tickets for everyone in the family? Yes No

Have I packed enough dresses for the trip? Yes No

Do I have enough money for the expenses? Yes No

Have I booked room in a hotel to stay? Yes No

Have I taken the first aid box? Yes No

Have I arranged the transport for sightseeing? Yes No

Do I have enough warm clothes? Yes No

Do I have the list of places to visit? Yes No

**5. Imagine you are the team leader of your branch and you are going to Mumbai for an industrial visit. Write a checklist.**

Have I taken my identity card? Yes No

Do I have the tickets safe? Yes No

Are all the documents taken? Yes No

Have I taken the confirmation letter? Yes No

Have I taken the visiting card of the Mumbai official? Yes No

Do I have enough money and the ATM card? Yes No

Have I taken my cellphone & charger? Yes No

Have I given necessary instructions to my team members? Yes No

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## COMPOUND WORDS

A **compound word** is when two **words** are combined to form a new **word** or phrase. There are three types of **compound words**: closed form, hyphenated and open form. The closed form is when two **words** are combined to form a new **word** such as bullfrog, snowball and mailbox.

- NOUN+NOUN : motorcycle, railway
- VERB+NOUN: driving license, swimming pool
- ADJECTIVE+NOUN: blackboard, software
- ADVERB+NOUN: overcoat, bypass
- ADVERB+VERB: income, outset
- VERB+ADVERB: lookout, feedback
- GERUND+NOUN: blotting paper, stepping-stone

### Expansion of the compound words

1. Air supply – Supply of air
2. Battery car - car which runs on battery
3. Cable Television – a television working with signals transmitted through cables

4. Power transmission problems – problems in the transmission of power
5. Jet engine – an engine used to propel a jet
6. Laser printer – a printer that uses laser technology
7. Pedal power – power derived from a pedal device
8. Nickel Alloy- an alloy containing nickel
9. Temperature drop- drop in temperature
10. Pressure valve – a valve used to release excess pressure

### **Exercise for compound words**

1. Box top
2. Cylinder walls
3. Temperature drop
4. Tongue slip
5. Engine failure
6. Heat transfer
7. Steel bar
8. Hot water
9. Computer memory
10. Balanced diet

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## **EXTENDED DEFINITION:**

A single line definition only specifies clearly and distinctly the basic nature and function of an object and which class belong to them. An extended definition includes the formal definition of the object and basic characteristic functions in addition to various sources of information like description, explanation, classification, comparison, process, examples and other supplementary information etc.

### **Example**

#### **1. Calculator:**

A calculator is an electronic device used to perform arithmetic and logical calculations. it works on solar energy. It is small and handy. It is portable. It is of different sizes and shapes. There are two types of calculators, scientific and ordinary calculators.

#### **2. Barometer:**

A barometer is a scientific instrument used in meteorology to measure atmosphere pressure. It can measure the pressure exerted by the atmosphere by using water, air, or mercury. Pressure tendency can forecast short term changes in the weather.

#### **3. Appropriate Technology**

Appropriate Technology is a low cost technology which uses local resources available. it is eco-friendly. It is a low technology. Since it uses the local resources it is easy to use. Its maintenance is also easy. It works on human power.

#### **4. Robot**

A robot is a machine designed to execute one or more tasks repeatedly, with speed and precision. It can be controlled by a human operator, sometimes from a great distance. But most robots are controlled by computer.



## **5. Blue tooth:**

Blue tooth is a wireless technology standard for exchanging data over short distances from fixed and mobile devices, creating personal area net works with high levels of security. It is a wireless communication with PC input and optional devices.

## **6. Printer**

A printer is a device that accepts text and graphic output from a computer and transfers the information to paper, usually to standard size sheets of paper. Printers vary in size, speed, sophistication, and cost. In general, more expensive printers are used for higher-resolution color printing.

## **7. Laser Technology**

Laser technology is a technology which uses the power of radioactivity. It has many useful applications in various fields, especially in the field of medicine. Laser treatments help the patients get relieved of painful, invasive surgeries.

## **8. Offset Printing**

Offset printing is a commonly used printing technique in which the inked image is transferred (or "offset") from a plate to a rubber blanket, then to the printing surface. The rubber surface gives great flexibility, permitting, printing on wood, cloth, metal, leather and even rough paper.

## **9. Smart Phone**

A smart phone is a mobile phone that performs many of the functions of a computer, typically having a touch screen interface, Internet access, and an operating system capable of running downloaded apps.

## **10. Pollution**

Pollution is the process of making something unclean, dirty, impure and contaminated. Pollution take place normally through changes in energy patterns, radiation levels, chemical and physical constitutions. This sort of pollution includes the release of

materials into atmosphere which makes the air unsuitable for breathing, harm the quality of water and soil and damage the health of human being, plants, and animals

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## LISTENING (GENERAL TOPIC)

### LISTENING EXERCISE

You will now hear a lecture on literary moments in United States History.

- Have a quick look at the questions first to see what kind of information you need to fill in.
- When you hear the movement titles, listen carefully as you will hear your answers next.

Listen to the introduction lecture to a course on American Literature, and fill in the table below using one to three words for each gap.

Movement Title	Time Period	Origins	Core Beliefs and Important Figures
Transcendentalism	1830s - 1860s	New_(1)____; the north eastern part of the US	People can achieve spirituality without ____ (2)_. People are responsible for their own development. Ralph Waldo Emerson: published Nature in ____ (3)_. <i>www.binils.com</i>
Romanticism	1830s - 1870s	Germany and ____ (4)____	Focus on imagination and strong emotions. American works also typically include the supernatural and focus on human ____ (5)_. Edgar Allen Poe: best known for tales of ____ (6)_. <i>www.binils.com</i>
Realism	____ (7) _s - 1920s	France	Focus on events that were (8) and typical rather than extraordinary. Many writers were also concerned with social change like ____ (9)_. Mark Twain: Wrote about ordinary life in the (10) part of America.
Naturalism	1890s - 1920s	____ (11)____	A person can not escape (12)_. A person's behavior is influenced by that person's ____ (13)_. Jack London: Humans behave like animals in extreme

			circumstances.
Modernism	1890s 1940s	- Europe	Focus on(14). Finding out what doesn't work and replacing it. Ezra Pound: Completely changed____(15) _____.

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## **HS 8251 TECHNICAL ENGLISH**

**(2017 REGULATION)**

### **NOTES**

#### **UNIT I**

##### **Purpose Expressions**

The idea of purpose can be expressed many ways. They are

- Beginning the sentence with the expression “The purpose of” and using “to infinitive” to show purpose
- Using phrases as “in order that / to”, “so that”, “with a view to” etc
- Using the pattern “for + gerund”

Care must be taken in constructing the sentence structure while rewriting the sentence to show the idea of purpose.

##### **Example**

###### **Cell Phone:**

A cell phone is used to contact a person mostly anywhere, anytime.

###### **Computer:**

The purpose of a computer is to perform calculation, store information, retrieve data and process information

##### **Exercise I**

1. Refrigerator -
2. Washing machine -
3. Carbon paper -
4. Thermostat -
5. A calculator –

##### **II. Make sentences expressing purpose using the hints given below**

1. A life- boat: rescues people who are in danger at sea.
2. A compass: finds direction
3. Robots: do heavy and dangerous job
4. RWH: augments the ground water table
5. A litmus paper: identifies acids and alkalis

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## READING (GENERAL TOPIC)

Technical English promotes the basic skills and enhances the ability of young Engineers and Technocrats to read and comprehend engineering and technology texts. The main objective of the Technical English is to enable the learners use English for technical communication. The Engineers need a specific set of language skills for their success in education and career. It fosters their ability to write convincing job applications and effective reports, develop their speaking skills to make technical presentations, participate in group discussions, and also to strengthen their listening skill which will help them comprehend lectures and talks in their areas of specialization. Technical English provides opportunities for students to improve their Listening, Speaking, Reading, and Writing (LSRW) skills in English. The success mantra of an engineer in the current era relies on profuse technical knowledge and proficient communication skills as well.

This Technical English book has been designed for Engineers and Technologists who aspire to improve their LSRW skills in English. The textbook provides opportunities for learners to expand their abilities in all their skills. Each chapter is clearly and concisely explained with practice exercises. Each topic contains brief introduction and practice exercise for the learners to know the basics and to work out the exercise individually or collectively. The language used in this book is contemporary and applicable to all types of readers in English. The main objective focused in this book is to help the students to understand Technical English and to use their skills for meaningful communication and interaction. At the end, the learners will be able to read technical texts and write technical texts with ease. They will also be able to listen and comprehend lectures and talks in their area of specialization, and speak appropriately and effectively in varied formal and informal contexts.

### Read the Following Short Passage

Anesthetics are drugs causing unconsciousness or insensibility to pain. Their use in modern medicine permit painless surgery during the simplest operation of a few minutes duration, to the most delicate operation lasting many hours. Anesthetics are divided into two broad groups; General anesthetics and Local anesthetics. General anesthetics can cause total unconsciousness in the patient by temporarily altering the normal activities of the central nervous system. Local anesthetics temporarily deaden the sensation on a particular or local area of the body. General anesthetics are usually administered to the patient in one of the two ways inhalation or intravenous injections. In the inhalation method the patient breathes a gas or vapour into his lungs. In the intravenous injection, the drug is put directly into a vein. Two drugs often used as general anesthetics in operations of short duration is the liquid vinylene, which causes rapid anesthesia, and trilene, which produces a light, pain killing effect. Trilene is usually combined with nitrous oxide and oxygen. Not all surgery requires that the patient be unconscious. For minor operations, only restricted or local area of the body need be made insensible to pain; thus a local anesthetic is administered. The local anesthetic prevents sensations of pain from traveling through the nerves in the drugged area. Local anesthesia can be produced through three sites of injection. Infiltration is the injection of the drug into the tissues. Block anesthesia is produced by the

injection of the drug around the main nerves leading to the operating areas. These main nerves are blocked from transmitting sensory impulses. Spinal anesthesia results from the injection of the drug into the space surrounding the spinal cord.

a. Answer the following questions briefly

- i. What is the difference between 'general' and 'local' anesthesia ?
- ii. How does the local anesthesia work in the body of the patient ?
- iii. Explain the functioning of block anesthesia.
- iv. Explain how general anesthesia is administered to the patient ?
- v. Does the patient need to be unconscious in all types of surgeries ? Explain.

b. Say whether the following statements are 'true' or 'false'.

- i. Local anesthesia can cause total unconsciousness in a patient.
- ii. General anesthesia temporarily stops all the activities of the nervous system.
- iii. In block anesthesia, the main nerves in the operating area are blocked from transmitting pain.
- iv. Liquid ethene is a drug used in local anesthesia.
- v. In local anesthesia, pain cannot travel through the drugged area.
- vi. Spinal anesthesia is a type of local anesthesia



## SPEAKING – ASKING FOR AND GIVING DIRECTION (GENERAL TOPIC)

When you are asking or giving directions, you need to use polite words and ensure you are always polite. Be clear and pronounce each and every word clearly, and mainly the key words or the landmarks. Use appropriate gestures and especially hand gestures to demonstrate what you are trying to say. Avoid giving or asking vague directions. Do not assume that the other person will know the landmarks which you mention. Here are some ways to ask and give directions:

The nice way to start the conversation is by saying excuse me or hello sir/madam.

Excuse me, can you tell me the way to bus stand?

Sir, Can you tell me the way to reach railway station? Madam, Is there any ATM nearby?

Excuse me, which is the best way to get to airport? Hello Sir, Do you know where the nearest supermarket is from here?

Hello Madam, Could you show me the way to medical store?

While giving directions use gestures to say left, right, straight ahead, opposite, across and so on. Be polite and use 'Please and thank you' for positive response and hospitality. Use keywords or landmarks while giving direction like name of the streets, road, shops, and so on.

### Exercise for Practice :

Woman : \_\_\_\_\_ library?

Man : Yes \_\_\_\_\_

Woman : \_\_\_\_\_, I don't know the police station.

Man : Oh, OK. Listen, \_\_\_\_\_

Woman: I have to \_\_\_\_\_, OK.

Man : Yes, it's easy. \_\_\_\_\_ Street. Then go \_\_\_\_\_ for about 200 metres. Then you get to the \_\_\_\_\_.

Woman : The post office.

Man : Yes, it's on the \_\_\_\_\_. Woman : On the right, OK.

Man : \_\_\_\_\_ post office, \_\_\_\_\_ into Beach Road.

Woman : Beach Road, OK.

Man : \_\_\_\_\_ the road, then \_\_\_\_\_ at the \_\_\_\_\_.

Woman : Yes, OK.

Man : The \_\_\_\_\_ is in \_\_\_\_\_. It's at the \_\_\_\_\_ of the street, on the \_\_\_\_\_. Woman : Thanks very much.

### Pair Work

**Instructions :** Take turns asking for the location of bakery, railway station, post office, Gift shop, beauty parlour, and ATM services in your locality. Write the conversation below :

Student 1 : \_\_\_\_\_

Student 2 : \_\_\_\_\_

Student 1 : \_\_\_\_\_

Student 2 : \_\_\_\_\_

Student 1 : \_\_\_\_\_

Student 2 : \_\_\_\_\_

Student 1 : \_\_\_\_\_

Student 2 : \_\_\_\_\_

Student 1 : \_\_\_\_\_

Student 2 : \_\_\_\_\_

Student 1 : \_\_\_\_\_

Student 2 : \_\_\_\_\_

Student 1 : \_\_\_\_\_

Student 2 : \_\_\_\_\_

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## SUBJECT VERB AGREEMENT

1) Two or more nouns joined by 'and' , takes the plural form

*eg)* Both Raja and Rani are good in studies

**(except)**When two or more noun refers to one general thing singular verb

*eg)*Bread and butter

2) When two titles/designation are connected by 'and' and used to refer to two different persons, plural verb follows

*eg)* The poet and philanthropist are coming for the function

**(except)** But if the second noun is preceded by the article 'the ' , singular verb is used because both title or designation refer to one individual

*eg)*The poet and philanthropist is coming for the function

3) The pattern "one of" is always followed by a plural noun, the verb agrees with 'one' with the plural noun

*eg)* One of the books is missing

**(except)**But occurs in the middle followed by relative pronouns like 'who' , 'that', which verb is plural

*eg)*He is one of the players who have won number of medals)

4) When words are added to a singular subject by 'with' , 'together with', 'along with', 'in addition 'as well as ', 'besides', etc t=the verb is singular

*eg)* The file, with all the papers is missing

**(except)**But if commas are omitted in written English, the subject is treated as plural and plural verb is used

*eg)* The dog along with its master are going for a walk

- 5) When two or more nouns or pronouns in the singular are connected by 'or', 'nor', 'either...or', 'neither...or' the verb is singular

*eg)* Neither Rosy nor her friend has come

But the subject near the verb is plural then plural verb is used

*eg)* Either Ram or his friends have the book

- 6) The indefinite pronouns 'each', 'every', 'eachone', 'everybody', 'anybody', 'either', 'neither', 'no one', take singular verb

*eg)* Each of the books is worth reading

Each boy and each girl has a story to say

- 7) Certain nouns, singular in form, are considered as plural and take the plural verb

*eg)* The police were forced to act

- 8) Articles consisting of two equal parts are taken as plural noun. A few words are pants, forceps, **cards**, wages, shorts, etc. When count ability is taken into account, these are to be proceeded by 'A pair of of'

*eg)* A pair of scissors is there

- 9) Some most of ,a lot of, a great deal of, plenty of, lots of, one third of take plural verbs when they refer they refer to numbers

*eg)* Some of the boys are very intelligent

**(except)** The some nouns take the singular verb when they refer to quantity

*eg)* Some of the sugar is spilled

- 10) Many a' and 'more than one' are followed by singular noun and takes the singular verb

*eg)* Many a book is interesting

More than one candidate was absent in the meeting

**(except)** But many or more when used word refers to number and so take plural verb

*eg)* Many students were present at the function

- 11) If a sentence begins with 'a number of ' the verb is plural where if it begin ' the number of ' the verb singular

*eg)* A number of student are playing in the ground.

The number of students good at sports is very few.

- 12) Phrases beginning with 'a team of', 'a chain of', 'a flock of', 'a bouquet of', 'a crowd of', 'a series of', 'a set of' etc. take the singular verb though the word after them is plural.

(e.g.) A series of serials is telecast every day.

A team of ministers has come on avisit.

A regiment of soldiers is deployed for election duty.

13. Titles or names of books, quotations take the singular verb only. (e.g.)  
'The Discovery Channel' gives vast information.

'Tales from Sherlock Holmes' makes reading interesting.

"Honesty is the best policy" is a saying.

14 .Certain adjectives are used with the article ‘the’ to refer to a group of people in a particular condition; The blind, The youth, The brave, The poor, The unemployed etc. take the plural verb.

(e.g) The destitute are taken care by the organization.

The brave die once.

The unemployed are restless.

The youth of today are the pillar of tomorrow.

**Fill in the blanks with the correct verb that agrees with the subject**

- One of my friends\_\_\_\_\_ (has, have) gone to Zambia.
- Oil and water \_\_\_\_\_ (do, does) not mix.
- She or her roommate \_\_\_\_\_ (was, were) present here.
- Everyone \_\_\_\_\_ (is, are) present.
- Pencils \_\_\_\_\_ (is, are) short.
- Bread and butter \_\_\_\_\_ (is, are) my favourite breakfast.
- Mr. Ashok, as well as his wife, \_\_\_\_\_ (is, are) a vegetarian.
- My sister, along with her two children, \_\_\_\_\_ (has, have) arrived.
- Arabian Nights \_\_\_\_\_ (is, are) an interesting book.
- Each man and each woman \_\_\_\_\_ (has, have) a vote.
- Neither he nor I \_\_\_\_\_ (has, have) money to spare for this.
- Meena, Nisha and Rita (is, are) great friends.
- Thousand rupees \_\_\_\_\_ (is, are) too much for this bag.
- There \_\_\_\_\_ (is, are) fifty benches in this room.
- The audience \_\_\_\_\_ (has been, have been) waiting for long.

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## TECHNICAL VOCABULARY

**Technical vocabulary** is words or phrases that are used primarily in a specific line of work or profession. For example, people who work in the steel industry often use words like "Rockwell", "Olsen", "cup test", and "camber". These words have special meanings pertaining to the manufacture of steel.

### EXAMPLE:

- Mass: Lump, quantity of matter without regular shape.
- Scrap: make clean, or smooth
- Bias: cause to go one side rather than the other, weight that causes this.

### EXERCISE:

- a) Appropriate - (i) allowing light to pass  
b) Translucent - (ii) a place where water is collected and stored  
c) feedback - (iii) an unintended consequence of an event or action  
d) catchment - (iv) suitable  
e) repercussion - (v) response

Ans: a-iv, b-i, c-v, d-ii, e-iii

- a) Diversity – initiate  
b) Volatile – a thing that is added to something  
c) Trigger – variety, having a difference  
d) Supplement - unstable

Ans: a-iii, b-iv, c-i, d-ii

- a) Nutrition – unthinkable  
b) Afforestation – can be moved around  
c) Inconceivable – nourishment



d) Portable – expansion of forest

Ans: a-iii, b-iv, c-i, d- ii

a) Disseminate – the first design of something

b) Obliterate – designed to be useful but not beautiful or luxurious

c) Prototype – too difficult to understand

d) Utilitarian – to destroy something completely

Ans: a-iii, b-v, c-i, d-ii

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## INSTRUCTIONS

Writing instructions find an important place in technical writing. One needs to make instructions for various purposes. It is a direction or order, detailed information about how something should be done or operated. It should be clear precise, and understandable.

### Points to Remember

- Use the imperative form.
- Begin each step with action verb.
- Frame each step in such a way that it focus on a single step.
- Leave enough steps between steps.
- Use simple and direct language.

### Example

**1. Write a set of eight instructions that are to be followed by the citizens of India to keep the environment clean and green:**

- Plant saplings, wherever grow trees.
- Do not cut trees, in the name of development.
- possible and Use green fuels or bio fuels for transportation, for industrial and domestic purposes.
- Maintain the vehicles in good condition
- Segregate the water at source and dispose the garbage properly.
- Avoid using plastic bags.
- Do not spit in the public places.
- Preserve the water bodies by not dumping waste into them.

**2. Write a set of eight instructions to avoid wastage of water in public places. You may also include instructions as to how to use water carefully**

- Close the tap properly to avoid wastage of water.
- Check the pipes periodically for leakages and maintain properly.

- Use paper plates and cups, wherever possible.
- Recycle and reuse water wherever possible
- Water the plants in the evening.
- Avoid overflow of water from the water tanks.

**3. Write a set of eight instructions that are to be followed to maintain computer in good condition.**

- Switch on the system properly.
- Install anti-virus software
- Avoid playing games often
- Avoid children to handle system
- Use quality CDs
- Clean the system properly
- Shut down the system in a proper manner
- Cover the computer after use.

**4. Write a set of eight instructions to be followed in your college library.**

- Deposit your bags at the personal belongings counter.
- Produce valid library cards to borrow books.
- Verify the physical condition of the books before borrowing.
- Return the books on or before the due date.
- Renew the books in time.
- Observe silence inside the library.
- Switch off the lights and fans when not in use.
- Do not tear the pages.

**5. Write a set of 8 instructions of the following: “Giving first aid to a victim of a road accident”.**

- Survey the scene and the victim. Remove the victim to the side of the road, if possible to a sheltered place.
- Try to stop the bleeding by applying pressure on the bleeding side.
- Give artificial respiration if the victim is struggling for breathe.
- Handle the victim carefully, in case of fractures or minor dislocations to prevent compound fracture or other complication. Handle the victims with neck or spinal injuries very carefully.
- Do not crowd round the victim and prevent airflow.
- Open the victim’s mouth to ensure that the tongue has not fallen back, or blood clot or vomit is choking the air passage.
- Send SOS call for ambulance/ police etc., or transfer the victim to a nearby hospital.

Reassure the victim by being cheerful with them and offering spiritual support