



**Dr. MCR HUMAN RESOURCE DEVELOPMENT INSTITUTE OF TELANGANA
GOVERNMENT OF TELANGANA**

Trek Manual

For

1st Foundation Course for Probationers of Military Engineer Services

15th April to 20th July, 2019

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INTRODUCTION

Trekking is an activity which is a test for physical as well as mental abilities. At the same time, it promotes **team spirit, camaraderie** and creates an opportunity for making **life-time friendships**. It helps one to realize one's own potential and stretches the limits that are set in mind. Trekking promotes leadership. The hard circumstances and limited resources make you stronger mentally and physically. Trekking is associated with pilgrimage in many places in India. Thus, it is common and a very familiar phenomenon. In recent times, more and more people are being drawn to trekking as an adventure sport. Trekking in **Munnar (Kerala)**, a **Biodiversity hotspot**, provides an extraordinary experience of being in the lap of Mother Nature. The pristine glory of the Munnar Mountains can be cherished at every footprint of yours.

Probationers will be put up in **DTPC Dormitory in Munnar** at the Munnar Base Camp.

The trek will last for 4 days. On the last day, as soon as the trek is completed, the Probationers will return to Munnar and from there, back to the Institute via Cochin by flight.



CHAPTER – 1

THE TREK

The term 'trekking' derived from the Afrikaans word *trekken*, became a word in English vocabulary in mid-19th century, and means a long, hard walk lasting several days or weeks, especially in the mountains. Trekking is a pursuit which can leave one exhausted and can have a lasting influence on one's life. It tests and develops mental and physical endurance, besides helping in inculcating qualities of leadership. It is an adventure that brings out the best in men and women. It helps one realise one's own potential and helps in team building besides providing an opportunity to be very close to nature.

Edmund Hillary once said “*it’s not the mountain we conquer but ourselves*”. Exploring the beautiful and welcoming mountain ranges and valleys is a lifetime experience. The journey is not merely on a physical endurance level but also on a deeper, psychological level.

In today's ever-changing and dynamic scenario, Officers in general have to perform in difficult situations. To perform and deliver results, mental and physical endurance, team building and leadership skills are required. Trekking is an experience which can richly endow budding Officers with these qualities. Keeping these needs in mind, trekking has been made an integral part of the Foundation Course.

The trek will invariably stand out among all the activities during the programme, as it provides unique opportunities for learning and bonding. The following objectives are intended to be fulfilled in the trekking exercise.

- To foster a **spirit of adventure**
- To promote *esprit de corps* and camaraderie among fellow Probationers
- To improve **self-esteem**, feeling for friends, know/understand each other better and make lasting friendships
- To appreciate the pristine **glory of nature**

- Learn to **endure in hard circumstances** and limited resources
- Realizing **one's own potential** of mental and physical capabilities
- Helps in **team building** and understanding the group dynamics in difficult circumstances
- Opportunity for **relaxing amidst the natural** and healthy surroundings

CHAPTER-2

TREK ROUTES

Munnar is a hill station in the **Idukki district** of **Kerala state**. It is around 1600 M above sea level and forms a part of the Western Ghats. Nestled in the lofty corners of the Western Ghats, Munnar is an abode of lush greenery, vast rivers and large areas of tea plantations. It's a town that is a perfect picture for trekking through undulating hills and rainforests.

1) Devikulam

Devikulam is located approximately **10 km away from Munnar**. It lies 1800 M above the sea level and sits in the mountainous region of the Western Ghats near the Kerala-Tamil Nadu border. It derives its name from the **Devikulam Lake** in the vicinity and famous for its softly gushing waterfalls that cascade from steep heights. The thick canopy of greenery and the high cliffs at Devikulam makes it the ideal location for adventure activities like hiking and mountaineering. Its velvet lawns and vast range of exotic flora and fauna makes the experience in Devikulam a memorable one. The natural vegetation of this region consists of tea plantations; slim red, blue and yellow gum trees.

2) Lockhart Mountains:

Lockhart Gap in Munnar is a picturesque valley nestled at a distance of 13 km from Munnar, near Mattupetty and is often surrounded by mist-clad blue hills and a pleasant climate. Set amid the hills of Western Ghats, the Lockhart Mountains present a beautiful view of the green valleys and undulating terrains. While trekking through the winding trails, one can explore rare species of fauna and flora.

Lockhart - Sitadevi Lake - and Moving Participants to Pambadum Solai National park (By Vehicle)

3) Pambadum Solai National Park:

Pampadum Shola is nearly 35 Km from Munnar town. Months from April to September have a pleasant climate. The terrain is undulating with hillocks of varying heights. The altitude ranges from 1600 to 2400 M. The forest is seen as a continuous patch from 1600 M up to 2000 M, above which grasslands prevail with small forest patches distributed among them.

The National Park offers a wide range of habitats to the flora and fauna. 22 Species of trees, 74 species of herbs and shrubs, 16 species of climbers are found here. Pambadum Sholai is the smallest National Park in Kerala.

CHAPTER – 3

HILL WALKING

Careful planning and thorough preparations go a long way to ensure the success and enjoyment of a mountain walk. Neglect of this will probably lead to frustration, discomfort or even a tragic and avoidable accident.

The **Group Leader** should divide the task among various members of the group before starting off. One of the Probationers will be the ‘pacer’ and it will be his/her job to keep a measure of the distance travelled. This can be done by counting the steps. Normally **120 steps is equivalent to about 100 meters**. The Group leader should ensure that one amongst the party who is physically fit should be at the rear end & it will be his/her duty to ensure that no one lags behind.

Before starting every day for the trek, the group leader should ensure that responsibilities have been delegated to various members of the group. The normal speed is about 5 km an hour plus half-an-hour for every 300 M of ascent. It is, however, prudent for the beginner to cover about 4 km in an hour. Based on these calculations, the places of rest and the time of rest at each halting place should be decided.

Prior to starting off on the route, it would be advisable to inform the trek coordinators about your starting time and anticipated time of arrival at your destination. Similarly, after arriving at your place of halt, information should be given to the trek coordinators about your arrival.

Once on your way, no matter how fit and energetic you may feel, a slow mountain pace should be set. This has been described as "**the easy stride of the hill**". It might look leisurely but it is a sort of pace you can keep hour after hour without getting out of breath or badly tired.

Walking uphill is a very vigorous exercise. Probationers should ensure that they have a filling meal at least an hour before they start and in case a long distance has to be covered, then some packed food should be carried. Sufficient water should be carried in the water bottles, but it must be remembered that large quantities of water should not be consumed during breaks; only small gulps should be taken to quench the thirst.

You should be extremely careful & alert while descending a hill because that is the time when 'over confidence' tends to set in, which might result in accidents. Normally, descent should be made along known and well-marked tracks. The golden rule is not to undertake a particular descent route unless the place below is clearly visible upto the end. It is potentially dangerous to descend along a convex slope.

While going up and down a steep gradient, keep your hands stretched on both sides, like a tight ropewalker and balance yourself. While moving uphill, lean forward and while going downwards, lean backwards. Develop a steady walking rhythm and maintain it once you start walking.

CHAPTER – 4

THE TREK CODE

You will spend some days and nights enjoying the outdoor as you trek and camp in the wilderness. As an officer and citizen, you have a greater responsibility than most people do because you are a public servant. Failure to live up to your duties may cause hardships and problems to you as well as to the later groups besides causing damage to the environment of local area.

1. Treat the outdoors as a heritage for our benefit. **Keep trash and garbage out of river, fields, woods and the road.**
2. Clean the campsite and utensils before you leave. Remember that litter attracts litter.
3. Do not smoke while on trek. Prevent **wild fires**. In case of absolute necessity, build fire in safe places. Be sure they are put out completely before leaving. Use lots of water. Never throw cigarette butts or match sticks while trekking, especially in dry grass area.
4. Treat property rights and local customs with respect. Avoid passing through tombs, cemeteries, burial places, temples etc.
5. Don't cut live trees for wood. Use dead wood. Pack the rest of it under cover for the next group. Never leave it in the open. It will be damp the next morning.
6. **In a forest, you are an intruder.** Never play loud music. Avoid noise and bright coloured clothes. Protect wild life. Help rather than hurt them.
7. Wish the local people. Goodwill created by you will be an advantage for the next group. Respect their culture, religion and customs.
8. Behave respectfully with the local officials. Their support to the programme is vital and important.
9. **Consumption of intoxicating drugs or alcoholic drinks on the trek is strictly prohibited.** Besides violating the conduct rules and your personal record, you would be tarnishing/spoiling the image of the Institution in the eyes of general public.
10. Be courteous, polite and helpful to other members of your group. Obey the group leader.
11. Take care of the equipment provided. Others will need it later and you have to pay for the damage.

12. Never throw stones from hills, they gain high speed and you can injure/kill somebody unknowingly.
13. Follow the route given. Short cuts can be dangerous, therefore, should be avoided.
14. Never use a whistle unnecessarily. Otherwise, in case of actual need, nobody will come.
15. If you are lost, stay near the route; somebody will definitely come looking for you, the moment your absence is noticed. Never panic. At night, try making a fire. Save the batteries of your torch. The search party will give three long whistles. Reply with six alternately long and short ones and signal with a torch in that direction. Stay at the same place. Look for land marks.
16. Never leave an injured or sick member alone.
17. Avoid taking lifts unless it is an emergency.
18. If you do get wet, change into dry clothing as soon as you can.
19. Keep the rucksack off the ground to protect it from getting damp.
20. Wash your hands and feet at every opportunity. Dry them. (Hand wash liquid could be carried).
21. Do not wait until you feel cold (particularly in the evening). Wear proper clothing and protect your body from sudden change in the weather condition which is very common in mountainous regions.
22. A halt should not be only for relaxing but also to readjust the load and to check for a change of clothes, etc. if required.
23. Halts should not be made frequently. Too many breaks destroy the rhythm of the walk and is also a waste of time.
24. One should take rest as per the time fixed and not as per the distance covered.
25. While walking, wear only required clothes.(Don't overdress)
26. While taking rest, put on your Sweater/Pullover or Windproof Jacket immediately to avoid exposure to the cold.

CHAPTER –5

TREK SAFETY

1. Stay away from mines, swamps etc.
2. Always trek in groups. It is safer. If you are hurt, some person can go for help, while others can stay with you.
3. **The Associate Group Leader should lead and the Group Leader, with another physically fit member, should bring up the rear, so that the whole group is between the Group Leaders.**
4. Safest drinking water on a trek is in your water bottle. You must refill it, use running water or water dripping from rock cavities. Filter the water through a cloth. Use water purification tablets. Never take water downstream from a village.
5. Never walk on loose rocks, logs or wet surfaces.
6. The sun can be quite strong at higher altitudes. Protect your head and eyes. Wear a hat/cap and sunglasses. Apply cream or lotion on exposed skin if the sunlight is strong.
7. If lost, keep your cool, don't panic, stay put. If the Group Leader knows you're missing, they'll look for you.
8. **Do not go swimming at all as there can be underwater holes and water weeds.**
9. If you have to trek at night, carry a torchlight. Tie something white around your leg. It will bob up and down as you walk, making it easy for others to spot you.
10. In a storm, stay away from lone trees. Hill-tops and rock-ledges are not safe either. Low spots away from tall objects are safer places.
11. Your normal speed is 5km / hour, therefore, start early from camp so that you could reach your destination by afternoon. This would give some time for rest and you may also visit the nearby places. Remember that the joy of travelling is as important as reaching the destination.
12. Be careful while walking on wet grass, wet roots, crossing streams and slopes etc. as it might be slippery
13. While crossing a mule or pony on the path, always keep yourself on the side of the mountain and not on the side facing the valley.
14. Overtaking should be avoided while walking on narrow paths or in difficult areas.

WOOD FIRES

Never make a fire near hay or straw stacks, dry bushes, bracken or undergrowth. Always clear an area of at least 3 M round the fireplace of all leaves, twigs, dry grass etc. Never make fire near the tent or stores. Even a light wind can carry a spark to a considerable distance. Never leave embers at night.

FOOD

1. There are arrangements for catering at most of the halting places. The Group will have to carry provisions for the place where it is not available.
2. Group should also carry some of the ration items for emergency purposes such as:
 - a. Biscuits
 - b. Glucose/Electral Powder

ACCOMMODATION

Accommodation has been arranged at all the places of halt for the groups. The accommodation is basic and **at some places it is plain shed or tents.**

The accommodation may not always be sufficient and opulent and 8-10 Probationers may have to share a room. Kindly ensure that lady Probationers are accommodated with adequate privacy.

CHAPTER –6

IMPORTANT INSTRUCTIONS

Following is a brief account of the equipment you require as well as important instructions:

I. EQUIPMENT

A. The following equipment would be provided by the Institute for treks undertaken during the course:

1. Plastic Sheet
2. First-Aid Kit for each Group

B. Individual items to be carried by each Probationer are:

#	Particulars	No
1	MCRHRDIT Identity Card	
2	Trekking Shoes of good quality (Sports Shoe will do)	One Pair
3	Socks (i) Nylon/Cotton and (ii) Woolen & Stockings	Two/// Pairs
4	Water Bottle	One
5	Sun Hat (Jungle/Gorkha Hat)	One Pair
6	Sunglasses	One Pair
7	Shirt (Woollen/Cotton) (Material that dries quickly)	Two Pair
8	Vest (Woollen/Cotton)	Four Nos
9	Trousers (Jeans/Cotton/Track Pants) (Material that dries quickly)	Two/Three
10	Raincoat	One
11	Diary and Pen	One
12	Torch (with spare cells & bulb)	One
13	Candles & Match Box	One
14	Extra String/laces, buttons, safety pins etc.	Optional
15	Sunscreen Lotion	Must
16	Old Newspapers	Optional
17	Towels	One
18	Soap/Soap strips/Small soaps	Optional
19	Personal Medicines	Must
20	Mosquito repellent	Must

(* Principle is '**Less luggage – More comfort**' as you need to carry it on your backs)

It is a good idea to make sure that all items are marked with your name to avoid getting mixed. All items should be packed into separate plastic bags and then put in the rucksack. In addition to the above, the Probationers will have to choose the following items very carefully:

1. **BOOTS:** Boots should be comfortable and should fit well. The sole should be of rubber and it should be flexible. New shoes should not be used for trekking and as far as possible, these shoes should be bought well in advance and worn before proceeding for the trek. Sport shoes are best suited and are commonly available in the market.
2. **SOCKS:** Comfortable Nylon/ Cotton/ Woollen socks can be used, but it should be ensured that the elastic at the top is not very tight as it may hinder blood circulation.
3. **STOCKINGS:** The stockings would be helpful while trekking and these can be used to cover the legs while walking through thorny shrubs, grass, undergrowth etc.
4. **TROUSERS:** Comfortable trousers should be used. In case the trousers are tight or ill-fitting, this will cause discomfort during long marches. Loose jeans/trousers/track pants will be comfortable. Lady Probationers who do not possess trousers are advised to wear salwar suits.
5. **LIGHT RAINCOAT :** A light raincoat along with a bedsheet (optional) should be carried
6. **CHANGES:** A hit walker should never be in a position where he/she is without a change of clothing. He/she should have one change of clothes packed in such a manner that it does not get damp on account of rain or while crossing a stream. This change should be easily accessible,
7. **SUN SCREEN AND LIP SALVE:** It is essential to carry a sunscreen lotion.
8. **TOILETRY & MEDICINES :** As required

CARRYING YOUR EQUIPMENT

1. A hip strap or belt will add to your comfort.
2. Your backpack is a bag that will hold many things. It is usually a good idea to pack different articles in separate plastic bags. Pack similar things in one small bag. Store dirty and wet clothes in separate bags.
3. Put the last things you will need at the bottom of your pack. Do not put anything hard in the part of rucksack that touches your back while walking. Try to put soft things in the part touching the back.
4. Always carry the knife in a sheath to prevent damage to the blade and to your equipment.

FOOTCARE AND SHOES

1. Sports Shoes should fit well.
2. Never wear new shoes on treks.
3. Socks should not have holes or knots.
4. Keep your shoes dry: stuff them with newspaper fillings at night if they are wet. Never try to dry shoes on the fire.
5. Keep extra laces.
6. Sole of the shoe should be strong yet flexible for a good grip.
7. Wash your feet whenever possible with soap; dry and apply powder.
8. Carry corn caps and band-aid strips.

9. If blisters are formed, wash the area with soap and water, dry and apply adhesive tape.
10. While taking rest, remove your shoes, rub your feet to restore circulation of blood and keep your feet up.

II. IMPORTANT INSTRUCTIONS

1. Arranging the bag and packing it accordingly, so as to draw more comfort by distributing the weight evenly across the bag like putting the heavy things in the bottom of the bag.
2. Small but continuous steps while negotiating the terrain
3. Long breathing from the mouth in case of more exhaustion, the act of taking breath from nose and exhaling from mouth and the movement of hands and back and filling the chest with oxygen, can be done
4. Technique of drinking water is taking just a mouthful at a time and retaining it for around 30 seconds before swallowing it
5. One should take enough amount of water some two hours before the commencement of the trek
6. Soaking the feet in warm water after the day long trek to get a shooting relief to the feet.
7. A cooling down exercise before taking rest after the long walk such as, rotation of ankles, knee, waist, shoulder, neck, followed by or preceded by jumping jack, or four point touch exercise or Surya Namaskar
8. For cramps and pain, massage it with either pain relieving gels or mustard oil before going to bed

9. Everyone has a different pace of walking. Maintain consistency in your pace to avoid fatigue and breathlessness. Do not be in a hurry to rush or always be at the front. Reach the next campsite as per the scheduled time and not too early or too late
10. While ascending or descending, always take a trail which is less steep. This way, you fight gravity less and do not strain your body much
11. The group should walk with the pace of the slowest person in the group. It not only brings cohesiveness but also maintains consistency in the group.

In the event of an incident

- Make sure everyone is safe
- Make sure one person is in charge to take all decisions
- Collect information (exact location, type of incident, hazard to rescuers, access to incident, number of injured, equipment required)
- Communicate
- Treat any casualties with first aid, using reassuring and kind words
- Make evacuation plans, if necessary
- Keep everyone warm and safe
- In case of snake bite, ask the person or others if they can describe the snake. This will help administer the exact antivenin. Do not let the person move. Keep head in a higher position than heart. Tourniquet the part little above the snakebite with a belt or a scarf and take that person to the nearest clinic immediately. Encourage and comfort that person and prevent him/her from losing consciousness.

SOME 'DOs AND 'DON'Ts'

DOs

1. Ensure that all the items mentioned are available in your rucksacks.
2. Have a full night's sleep before any big march so that you are fit and refreshed
3. Carry sufficient quantity of foodstuff in your rucksack for a minimum of two meals before you start for the trek.
4. Take care of all your equipment
5. Always double check on the route to be followed
6. Maintain a steady pace while walking
7. Use the facilities in Tourist Lodges, Guest houses with consideration. Please remember that the same facilities have to be used by fellow Probationers and other tourists.
8. Contact the nearest Police Station/ Tehsildar in case of any problems.
9. Ensure that all the dues are settled at places of halt before your departure

DON'Ts

1. Do not eat a very heavy meal just before trekking.
2. Do not stray away from your group, remain with them.
3. Do not drink water from ponds, streams or falls as they are likely to be contaminated.
4. Do not drink large quantities of water while on trek; take small gulps just sufficient to quench your thirst.
5. Do not wear new shoes for the trek. Wear them for some time before using them for the trek.
6. Do not wear torn socks as these are likely to cause blisters.
7. Avoid eating old and uncovered food from wayside shops.
8. Do not shout or scream while going through forests/wildlife areas etc. as this is likely to disturb the wild life.
9. Do not throw lighted matches or lighted cigarette ends in the forest area as these are likely to cause forest fires.
10. Do not pick an argument with anyone.
11. Do not over-expose yourself to the cold. Wear warm clothes
12. Do not stray into the jungle area without a forest guide. Never go for a forest walk alone. Always move in groups.

13. While going out in the forest, you should give information about your movement and likely time of return to the Forest Range Office or any other local forest staff available at that point of time.
14. Do not wear bright coloured clothes like yellow, red etc. while moving in the jungles, as they tend to frighten animals.

CHAPTER – 7

DUTIES AND RESPONSIBILITIES OF VARIOUS MEMEBERS

For each Group, a Group Leader and Associate Group Leader will be nominated. The purpose of these nominations is to coordinate various tasks to be performed by the Group. Some of the duties and responsibilities of the nominees are given below:

1. Leader
2. Associate Group Leader

Group Leader (GL):

1. Will ensure that members of the group are able to follow the itinerary chalked out for them.
2. Will coordinate and try to ensure that proper accommodation is available for members of the group.
3. Will find out the bus timings etc. for movement from one place to the other and ensure that all members of the group are ready well in time for the bus/travel.
4. Will strictly follow the Trek Schedule to avoid inconvenience to his/her group and to other groups.
5. Will assign the Pacer and the Navigator duties in each group who will keep track of the distance covered & directions.
6. Will contact the local authorities whenever their help is required.
7. Will assist the Associate Group Leader in his / her duties
8. Will ensure that the tour programme is followed strictly.
9. In case a Staff Associate is detailed with the group, obey his/her command
- 10. Shall ensure that only the members assigned to his/her group are in the group and shall report if any of the members are missing/other than assigned members join the group as well as any misconduct by any Probationer. Responsibility for the presence of unauthorised members in the trek group shall be fixed on the GL.**

11. Group Leader will submit a detailed tour report containing name of trekkers; distance covered; date and time of arrival and departure; name and address of the Guide, if any, other district officials who helped the Group en route; important aspects of nature, wildlife, etc., any other observations, including suggestions and photographs, etc. All the members of the group should assist GL in this work.

Group leader to have

- Route map with distances
- Group members list with mobile numbers
- Emergency numbers
- Day-wise itinerary
- The names of escort team members and contact numbers
- Menu Chart

ASSOCIATE GROUP LEADER

1. Will contact the Caretaker at the various places of halt and arrange for food for the group.
2. He should give advance intimation at the next place of halt for arrangements of food for the group on arrival there.
3. Will ensure that the group is carrying sufficient stock of food for at least two meals as and when they commence any trek.
4. Will assist the Group Leader with his/her duties and will be the stand-in GL in case the Group Leader is incapacitated for any reason.

OTHER MEMBERS

- In addition to the above roles, the GL can identify one of the OTs to be the navigator (read maps, talk to the forest guide and ensure that the group is on the right path, keep marking distances, understand the terrain and explain the flora and fauna to the group members).

- Thus, each member in a group can take turns to play required roles. Remember, it's group work and has to be done together.

NAMING OF GROUPS

- Naming of the groups ensures bonding with a single brand image for all. An action oriented tag line inspires. Some suggestions are Mountain Crusaders, Commandos 22, Munnar Soldiers, MCR Sholas, Forest Friends, The Nilgiri Tahr etc.

CHAPTER – 8

FIRST AID

The principles and practice of First Aid are based on the principles of practical medicine and surgery, knowledge of which, in case of accident or sudden illness, enables trained persons to give such skilled assistance as will preserve life, promote recovery and prevent the injury or illness becoming worse until medical aid has been obtained. The First Aider's responsibility ends as soon as medical aid is available. But he/she should stand by after making report to the Doctor in case he/she can be of further assistance.

First Aid is definitely limited to the assistance rendered at the time of emergency with such material as may be available. It is not intended that the First Aider should take the place of a Doctor and it must be clearly understood that the redressing of injuries and other such after treatment are outside the scope of First Aid.

Throughout this manual, standard methods of treatment are given for a number of defined conditions which may occur in different circumstances, But the First Aider will find that these conditions seldom conform to an exact pattern and that even in the same circumstances, individuals may react in different ways. He/she must be prepared to sum up any situation with which he/she may be faced and adapt to a wide variation from the average or typical

THE SCOPE OF FIRST AID

1. To determine the nature of the case requiring attention so far as is necessary for intelligent and efficient treatment-diagnosis.
2. To decide on the character and extent of the treatment to be given and to apply the treatment most suited to the circumstance until medical aid is available.
3. To arrange for the disposal of the casualty by removal either to home or other suitable shelter, or to a hospital.

DIAGNOSIS

In deciding the nature of the case, the First Aider must consider its **History, Symptoms and Signs**. The History is the story of how an accident or sudden illness occurred. This may be obtained from the casualty (if conscious) or from witnesses. It may be information that a person is subject to a particular disease or the surroundings may suggest the cause, e.g., a broken bicycle.

Symptoms are the sensations of the casualty such as feeling cold or shivery, feeling faint, nausea, thirst and pain which he/she can, if conscious, describe. Pain is a very helpful diagnostic point for the First Aider as it draws attention to the part which is most probably in trouble and saves a great deal of time during examination of the casualty.

Signs are any variations from the normal condition of the casualty such as pallor, congestion, swelling and deformity, which can be observed by the First Aider. Signs are the most reliable indications on which to base diagnosis, but the circumstances of each particular case will determine the relative importance of history, symptoms and signs.

TREATMENT

If the cause of the condition is still active, remove the cause if possible e.g. log of wood on leg; or remove the casualty from the cause of the conditions, e.g., gas filled room.

Give treatment to preserve life, promote recovery and prevent the conditions becoming worse. Pay special attention to the treatment of **failure of breathing, severe bleeding and shock**. When there is the slightest doubt as to whether a casualty is dead or alive, continue treatment until medical aid has been obtained.

DISPOSAL

The speed with which a casualty is brought under medical care is of tremendous importance in recovery.

Unless the casualty is examined by a Doctor on the spot, it is the responsibility of the First Aider to see that he/she is conveyed to a home (or other suitable temporary shelter) or to a hospital as soon as possible in a manner most suitable in the circumstances. A tactful message should be sent to the casualty's home or relatives indicating in a general way what has happened and the casualty's destination.

THE PRICIPLES ARE:

1. Before touching the patient, enquire and look to decide if the spine is injured. Pain in the back, with or without inability to use the legs, is suggestive of fractured spine.
2. Stop bleeding and apply dressing to open wound.
3. Immobilize broken limbs so that movement does not cause pain.
4. Keep warm and relieve pain. Warmth and freedom from pain are far more important than speed.
5. Handle and transport with care.
6. In general, attempt little else. What can be postponed is better left to the skilled attention and aseptic condition of a hospital.

MANAGEMENT OF THE CASE

The First Aider must always:

1. Respond quickly to calls for assistance. The saving of a life may depend on promptness of action.
2. Adopt a calm and methodical approach to the casualty. Quick and confident examination and treatment will relieve pain and distress, lessen the effect of the injury and may save life. Time spent on long and elaborate examination of a casualty may be time lost in ultimate recovery.
3. Treat obvious injuries and conditions endangering life such as failure of breathing, severe bleeding and severe shock, before making a complete diagnosis.
4. Take first aid material if this is immediately available. If standard equipment is not available, the First Aider must depend on material on hand, which will have to be improvised as required.

5. Study the surroundings carefully. These may influence the action to be taken and therefore, require careful consideration, for example
 - a. **DANGER:** from falling buildings, moving machinery, electric current, fire, poisonous gases and similar hazards.
 - b. **WEATHER:** If the accident occurs out-of-doors, the casualty may be treated in the open if the weather is fine; if the weather is bad, affected must be removed to a shelter as soon as is reasonably possible.
 - c. **SHELTER:** Note houses and buildings near at hand, whether occupied or unoccupied and whether likely to be particularly useful, such as a chemist's shop. Otherwise, temporary shelter may be provided by means of umbrellas, rugs and the like.
 - d. **LIGHT:** It is impossible to treat a patient satisfactorily without sufficient light and the First Aider must provide for this.
 - e. **ASSISTANCE:** Crowds must be tactfully controlled. If a doctor is present, work under his direction. If not, ask if anyone with knowledge, to the best advantage
6. Reassure the casualty by speaking encouragingly. Warn to lie still and tell that he/she is in trained hands.

GOLDEN RULES OF FIRST AID

1. **Do first things first** quickly, quietly and without fuss or panic.
2. **Give artificial respiration** if breathing has stopped-every second counts.
3. **Stop any bleeding.**
4. **Guard against or treat for shock** by moving the casualty as little as possible and handling him gently.
5. **Do not attempt too much**-do the minimum that is essential to save life and prevent the condition from worsening.

6. **Reassure the casualty** and those around and so help to lessen anxiety.
7. **Do not allow people to crowd round** as fresh air is essential.
8. **Do not remove clothes** unnecessarily.
9. **Arrange for the removal** of the casualty to the care of a Doctor or hospital as soon as possible.

PAIN AND SHOCK

- Make the patient as warm as possible with all available clothing, blankets, sleeping bag. If the patient is conscious, give hot drinks and glucose frequently unless internal injuries are suspected.
- Dust or spray wound with antiseptic solution or powder. Apply dressing or gauze and Elastoplast or cotton wool bandage. Do not plug non-bleeding wounds. Do not attempt to stitch wounds.

BLEEDING

- Bandage firmly, applying direct pressure over a pad of wool or gauze. No stimulants should be given where it is necessary to control bleeding. In serious cases, a tourniquet can be applied, but this is dangerous in unskilled hands. It is needed very rarely and should be used only as a last resort. A scarf or bandage, with underlying padding for protection, is tied around the limb between the wound and the heart i.e. above the wound. It should be released slowly after 15 minutes and reapplied if bleeding continues.

FRACTURE

- Broken limbs must be immobilized by fixing to splints, the body, the other leg or the stretcher. If transport causes pain, it must be stopped and the splints improved until movement does not cause pain. It is better to immobilize the broken limb at the outset than try to straighten it, causing pain and possibly damage. Fractures can be easily overlooked, particularly when patient is unconscious, compare both sides of the body, and when in doubt, treat as fracture.

ARM

- Place an angular splint on inside and straight splint or piece of wood all around. Place jersey cloth or cotton wool between the skin and splints. Bandage from wrist to shoulder and fix it tightly to the chest.

COLLAR BONES

- Place near opposite collar bone and bind the whole shoulder and limb to the chest

LEG

- Immobilize the leg. Pass a bandage of puttees, scarf or muffler around the leg and the splint from the foot to the groin so that the whole is one solid piece and can be moved roughly without causing pain.

ANKLE

- Unlace boot, but leave it on the leg. Immobilize the limb as above

SPINE

- This injury demands the greatest care of all. Any movement is dangerous. Unfortunately, it is one of the most difficult for the layman to diagnose. If the patient is conscious, he/she can tell you of any pain in the back or numbness of the legs. In other cases, look carefully, before you attempt to touch, for any sign such as damaged clothing or unnatural posture, or the way in which he/she fell that may indicate that the back has been injured. In every case where there is slightest suspicion that the spine is fractured, you must proceed on the assumption that it is. This is the only sound procedure. No attempt should be made to move the affected where he lies without a proper stretcher and plenty of help. With infinite care, gently roll him/her

onto his/her face and lift slowly onto the shoulder; arms and head can be made comfortable with cushioning. Rope the person securely to the stretcher so that he/she cannot bend spine.

BURNS AND SCALD

- For minor burns on the limbs, hold the injury under cold running water for five minutes. Pain is quickly relieved and damage to the skin is kept to a minimum. A small burn needs no further treatment. It should be exposed to the air, but if this is inconvenient, then dry gauze dressing may be applied. Do not prick or remove blisters.
- Large burns covering more than about 3 inch square or deep burns need medical attention. If possible, relieve pain by immersing the area in cold water or applying cold wet cloth. Wrap or cover the injury with a clean cloth and lightly bandage. If the victim can be moved, it may be best to take to the hospital.
- Chemical burns: These are usually caused by a strong acid, such as nitric or sulphuric, or caustic soda and can cause serious damage particularly to the eye. (See eye injuries). If large areas of the body have been burned by a chemical, put the victim under cold running water or shower, if possible pour cold water over.
- **Fire burns:** If the victim's clothing is on fire, smother the flames with a rug, blanket or other heavy material. Afterwards, lay him/her flat. Remove any smouldering clothing if it is not adhering to the skin. Otherwise, dampen the smouldering cloth with cold water, but do not press the wet cloth against the patient's skin. If possible, remove any jewellery, watch, socks or shoes near the burned area before the tissues have time to swell. Cover the burns with a clean cloth, which can be held in position with a light bandage. While waiting for medical help to arrive, treat for shock by keeping the patient quiet and covering lightly with a blanket.

CHOKING

- The victim will probably cough violently because food or some foreign body is caught in the windpipe. If coughing does not clear the blockage, get the victim to bend over and give a hard slap between the shoulder blades. If this does not dislodge the object, put the victim face down on a table or chair with head and chest hanging downwards, and give another hard slap. **In the case of a child, hold him upside-down and slap him on the back.** If this is not successful, get medical help at once.

CONVULSIONS OR FITS

- Anyone who falls to the ground with violent movement of the arms and legs may be having an epileptic fit. Move furniture out of the way to reduce the risk of further injury. If you get the opportunity, slip a knotted handkerchief between teeth to stop biting tongue. Otherwise, do not attempt to force anything between the victim's teeth. On regaining consciousness, the epileptic may be dazed and should be prevented from wandering off in this state. If the attack recurs, call a doctor immediately.

DISLOCATION

- When a joint is dislocated, the victim is unable to move it in the usual way. There may be a swelling and numbness beyond the point where the dislocation is. Do not attempt to replace the bone in its proper place. Keep the part as still as possible. Get medical help.

DROWNING

- Make sure the airway is clear by removing any obstruction. Give artificial respiration with the kiss of life immediately till the victim has been rescued and continue until breathing is restored or medical help arrives.

EAR BLOCKAGES

- If a foreign body is lodged in the ear and cannot be very easily removed, leave it alone and get medical aid.

ELECTRIC SHOCK

- If the victim is still in contact with electrical equipment, he/she should not be touched until the electric current has been switched off. It may be necessary to try and drag the appliance away from the electrical source, using a non-conductor such as dry wooden stick. If his/her heart does not seem to be beating, give the breast bone in the centre of the chest a sharp thump. If the victim is not breathing, start artificial respiration at once with the kiss of life, and continue until medical help arrives. If the victim is breathing but unconscious, place him/her in the recovery position. Treat for burns and shock

EXPOSURE

- A healthy person who is out in the open for a long period during extremely cold weather, may suffer from exposure. If the victim is conscious, remove any wet clothing, dry body, give fresh clothing and wrap in blankets. Give a hot drink. Call a doctor.

EYE INJURIES

- If the rapid blinking fails to dislodge an object in the eye, lift the lid of the affected eye by the lashes and try to remove the object with the corner of a clean handkerchief. If the object is embedded in the eye ball or cannot be seen, cover the eye with a gauze pad, held lightly in place with a plaster and arrange immediate transport to the hospital. Acid or other corrosive fluid in eye should be washed out immediately. Bathe the eye copiously with cold water keeping it washed out. Get medical help as soon as possible.

FAINING

- This is caused by sudden reduction in the blood flow to the head that may be the result of a slowing down in the heartbeat due to shock, anxiety or hormonal changes in early pregnancy. If someone feels like fainting, get the person to lie down with feet raised above head level. Alternatively, sit the victim in a chair with head between knees, chest and waist. If indoors, open the windows.

FRACTURES

- The signs of a bone fracture are pain, tenderness at even a gentle touch, swelling and bruising or loss of control or deformity of the affected limb. A broken bone needs treatment by a doctor. While waiting for medical help, keep the victim still. Stop the bleeding and treat for shock. Do not attempt to move the victim unless absolutely necessary and do not try to straighten the bone. Do not loosen any of the victim's clothing except around the neck.

NOSE

- Do not try to dislodge any object in the nose, if it cannot be easily removed. Any attempt to remove it may make it go backwards down the windpipe and cause more trouble. Tell the victim to breathe through mouth. Take to the doctor.

POISONING

- If someone has taken an overdose of drugs, swallowed some harmful substance or absorbed chemicals, pesticides for example, through the skin, telephone the doctor even if no ill-effects have appeared.

- If the victim is not breathing, give the kiss of life. Use the mouth-to-nose method if you think there is still poison in mouth. The lips and mouth will be burned or stained, if the victim has swallowed an acid or alkaline substance. Do not give an emetic medicine to make the victim vomit. If the victim is unconscious but breathing, place on side with uppermost arm and leg drawn up and head tilted back to keep the airway open. If the victim is slipping into unconsciousness, try to find out what poison has been swallowed. Tell the doctor because this information makes diagnosis quicker.

POISONOUS PLANTS

- In case the individual has consumed poisonous berries of deadly or woody nightshade or laburnum seeds, take him/her to the hospital immediately. Do not waste time giving an emetic or any other treatment.

SHOCK

- After an accident, the victim may experience shock-a condition in which the blood pressure is low and the heartbeat weak. The effect of shock can be lessened by stopping bleeding, by trying to ease any discomfort and by talking reassuringly to the victim. Keep the victim quiet and warm by covering him lightly with a blanket. Where possible, have the victim lying down with the head low and the legs raised a little. In the case of a heart, chest or abdominal injury, the victim's shoulders should be raised slightly and supported. Turn his head to one side.

SNAKE BITE

- The adder or viper is the only poisonous snake. Adder bites are serious only for the very young, the very old or sick people. In most cases, fright causes more symptoms than the bite. Wash the wound with soap and water and apply a dry dressing to it. Do not give the victim anything to eat or drink, reassure while arranging medical help.

SUFFOCATION

- This may be due to poisonous gas or any other reason. Find the cause of suffocation and remove it. Turn off escaping gas. Or if the victim has been overcome by car-exhaust fumes, turn off the engine. Open the windows or take the victim out into the open. In the case of suffocation, remove the obstruction from the victim's nose and mouth. In all cases, give artificial respiration if the breathing has stopped using the kiss of life.

SWALLOWED OBJECTS

- For pills, drug overdoses and poisons: See Poisoning.

FIRST AID IN CASE OF INSECT BITES

- During trekking, the Probationers may come across snakes, insects and other creatures. Therefore, it is necessary to know something about them, the required first aid and preventive measures so that there is no panic.

SNAKES

As a matter of precaution, all snakes should be regarded as deadly and they should be avoided. Some of the safety rules to be followed are given below

1. Look closely before parting bushes, picking fruit and wild berries. Some snakes are arboreal.
2. NEVR TEASE, PICK UP OR CORNER. A few snakes will attack when teased or cornered.
3. Use stick not hands to turn over stones and logs and for digging.
4. Wear sturdy boots, preferably ankle high. For this purpose, the jungle boots provide excellent protection.
5. Check bedding clothes before putting them on.

6. Stay calm. If you encounter a snake, remain calm and do not panic. Do not move suddenly or strike at it. Back off slowly. In most cases, the snake will be only too eager to escape.
7. To kill: if you have to kill a snake, use a long stick. Make your shot effective. A wounded snake is very dangerous.

INSECTS AND OTHER ANIMALS

1. **SCORPION:** They are normally found under tree bark, stones or in your own gear. The sting is the tail. Many cause trivial discomfort, a few produce nerve toxins causing temporary paralysis for 24 to 48 hours. The victim should be taken to hospital where he/she can be treated.
2. **SPIDERS:** There are a variety of spiders. Most of them are harmless. The only reaction that takes place is an itching sensation and appearance of rashes on the body.
3. **CENTIPEDES:** They are mostly small and harmless. They can pierce the skin and cause infection. They should be brushed off from the body in the direction in which they are moving.
4. **TICKS:** They are flat bodied and round with a small biting head that eats into a wound. Do not pull off. Use heat, petrol or hot water to make it drop off.
5. **LEECHES:** They are blood-sucking worm-like creatures and attach themselves to a victim. It is better not to pull them off, but remove with fire or a pinch of salt.

ACCIDENT PROCEDURE

- If an accident occurs, it may be possible to summon immediate help from other trekkers in the vicinity. Their attention could be attracted by blowing a whistle. If an accident occurs, the first thing to do is to ensure that the party is secured so as to prevent a second and possibly worse accident happening. The casualty is, of course, given first aid and made as warm and comfortable as possible. If no help is

forthcoming, one or two members may stay with the casualty and a party goes to get help.

- If the injury is such that the casualty is obviously a stretcher case, additional manpower will be necessary to get him help, particularly if the climb is steep.
- The most important thing to remember is never to panic but to keep your wits about you.

Trek from 2.6.2019 to 8.6.2019-Itinerary					
#	Itinerary	Stay	Accommodation	Trek distance in Km.	Address
1	Munnar Base Camp	Munnar	DTPC Dormitory , Munnar		DTPC Budget Accommodation , Munnar, Near Govt. Engg. College Munnar, Kerala
2	Trek to Devikulam from Munnar	Devikulam	Devikulam - Adventure academy	10	National Adventure Academy, Devikulam Circular Road, Devikulam, Kerala 685613
3	Devikulam to Lockhart Mountain	Lockhart	Lockhart- Tent/ Available accommodation	11	Near, Lockhart Tea Factory , Munnar
4	Lockhart - Sitadevi Lake - and Moving Participants to Pambadum Solai National park(By Vehicle)	Pambadum Solai	Forest Training House Dormitory - Pambadum Solai	8	Pambadum Sholai National Park , Munnar
5	Trek in Pambadum Solai National Park	Pambadum Solai	Forest Training House Dormitory - Pambadum Solai	8	Pambadum Sholai National Park , Munnar
6	Participants will be moved to Munnar for Return Journey	Munnar	DTPC Dormitory , Munnar		DTPC Budget Accommodation , Munnar, Near Govt. Engg College Munnar, Kerala

Parameters for Trek Presentation

-The group leader and associate group leaders in consensus will divide the entire group into 3 sub-groups of 10 members each.

-Each of these three groups will be led by the group leader / the associate group leaders (sub-groups A1, A2 and A3). Similarly, for group 2, sub-groups B1, B2 and B3.

-The group leaders / associate group leaders will facilitate the group presentation by ensuring that every member of the group makes the presentation

-Duration of presentation for each sub-group : 15 minutes followed by questions (5 minutes)

-The presentations will be organized in the immediate week following the trek

-Presentations will carry marks, which will form a part of the DG's assessment

-Presentations should include videos, photos and description

-The 3 leaders/assoc. leaders of sub-groups may choose any one of the following topics:

Topic 1 : Adventure during the trek

Topic 2: Important aspects of wildlife, nature, (flora & fauna) observed during trek

Topic 3: Overall experience of the trek

Each topic mentioned above may include the following points:

- a) Brief on itinerary
- b) List of the group members
- c) Details of the trek route covered
- d) Photographs
- e) Team spirit, growth and camaraderie
- f) Lessons learnt
- g) Any other observations / suggestions

Evaluation criteria:

S. No	Criteria	Max. marks
1	Itinerary	10
2	Content and quality of reporting/documentation/photography/videos, etc.	15
3	Observation of Nature, Biodiversity and wildlife	15
4	Team Spirit & Camaraderie	10
	Total	50 Marks