



Standard Operating Procedures (SOP) **for Safety during Search and Rescue Operations**

1. Reason for this Document / Introduction:

Nowadays many people from the society are going into mountains and taking difficult challenges. In most of the cases their act is a result of attraction created by glamorous publicity for adventure without proper awareness / knowledge about 'Adventure Sport'. Adventure sports are the activities undertaken through the medium of Land, Water and Air which commonly involves high degree of risks. The land based adventure includes Mountaineering, Skiing, Mountain Biking and ZipLine. Here we are only concerned with the mountaineering and allied activities and also search and rescue. Mountaineering is recognised as a sport and challenges are taken only after the training, gaining experience and taking safety precautions. The word 'mountaineering' includes the activities like Trekking, Rock Climbing (Traditional climbing & Bouldering) which required fulfilling certain physical and technical abilities before taking the challenges which are prescribed ahead.

The Akhil Maharashtra Giryarohan Mahasangh (AMGM) an apex body of all mountaineering organizations i.e. mountaineering institutes / clubs from Maharashtra through its Rescue Committee has formulated the Standard Operating Procedures (SOP) for safety in Rock Climbing and allied activities and rescue. This SOP provides guidelines to the members of institutes / clubs / rescue teams / participants / general public who are involved in these activities in the mountain ranges / terrain of Maharashtra.

2. Definitions and Qualifications:

People in general uses word mountaineer for all the persons who goes into nature, even for those people who visits nature for picnic, enjoyment etc. However, as mentioned earlier in this document mountaineering activities are bound by certain prerequisite self imposed discipline / rules, qualifications & experience. Therefore everyone goes into mountain is not a mountaineer.

I) DEFINATIONS:

1. Trekker:

Trekker is a person who walks long distances in a mountainous terrain having fitness, discipline and respect to nature etc.

2. Rock Climbing:

Rock Climbing is an upward movement on natural rock wall having more than 60 degree angle with the use of natural holds like crack, holes, rough surface etc. with the support of hand / foot and safety equipments like rope, pitons, bolts, helmets, harness etc. are used to protect from any kind of prospective / probable fall.



3. Rock climber:

Rock climber is a trained and experienced person who climbs the natural / artificial Rock wall having more than 60 degree angle with the use of natural holds like crack, holes, rough surface etc. with the support of hand / foot and safety equipments like rope, pitons, bolts, helmets, harness etc. are used to protect from any kind of prospective / probable fall.

4. Rock Climbing Institute / Club:

Rock Climbing institute / club is an organization established with the aim to organize / promote activities like Trekking, Rock Climbing, Himalayan peak climbing etc. whether registered or not.

5. Lead climber:

A person who climbs a Rock wall as a first person in trad natural / artificial climbing, along with the rope and clips it into protection fixed by him for protecting himself from the prospective / probable fall.

6. Equipments:

Equipments are those which are used in the rock climbing to protect climber from falling down, that maybe PPE or Group equipment having standards fixed by UIAA, CE, etc.

II) Qualifications:

1. Trekker:

Interest in walking long distances with physical fitness.

2. Rock Climber:

- a) To be a rock climber a person must be physically fit and proper trained person.
- b) Completed rock climbing course conducted by (preferably) registered institute / club who are established with the aim to organize/promote activities like Trekking, Rock Climbing, Himalayan peak climbing etc. and gained the field experience by way of climbing with senior Rock climbers.

OR

Completed Basic / Advance mountaineering course from any of the following Institutes and gained the field experience by way of climbing with senior Rock climbers.

- i) Nehru Institute of Mountaineering, Uttarkashi
- ii) Atal Bihari Vajpayee Institute of Mountaineering and Allied Sports, Manali
- iii) Himalayan Mountaineering Institute, Darjeeling



- iv) National Institute of Mountaineering and Allied Sports, Dirang
- v) Guardian Giripremi Institute of Mountaineering, Pune
- vi) Swami Vivekananda Mountaineering Institute, Mount Abu

3. Instructor :

In addition to the above qualifications of rock climber he must have

- a) Interest in teaching and supervision of groups
- b) Completed rock climbing instructor course (i.e. MOI) from any of the recognized and registered Mountaineering Institute / club

3. Scope:

Rock climbing and allied activities (organised at institutional level or individually) includes

- I. Traditional Rock Climbing
i.e. climbing including lead climbing in single or multi pitch routes
- II. Top rope climbing
- III. Rock Climbing Training Camps, which includes Rappelling, Jumaring, etc
- IV. Bouldering

4. Risk Factors:

If the correct safety measures are followed then climbing and allied activities are quite safe. Following are the main reasons due to which accidents occurs.

I. Human Factors:

a. Errors

Errors occur due to lack of practice, tying of wrong knots, chaos in rope management, wrong communication, etc.

b. Overconfidence

- i. Taking challenges of higher skills than the ones skills levels
- ii. Taking the big challenges without fitness and practice
- iii. Not wearing safety gears such as Helmets, Harness, etc. thinking that nothing will happen to me
- iv. Unsafe activities to impress the members / participants
- v. Bouldering without crash pad, spotters, etc.

c. Lack of Knowledge

- i. Not knowing how to use safety gears properly
- ii. Wrong placement of equipment's such as bolts, cams, etc.
- iii. Lack of technique to climb certain tricky rock structures such as overhang, off width cracks etc.



d. Lack of Experience

Only completing Rock Climbing courses are not enough to handle the risks in mountaineering, field experience is required. Experience is gained on the field through trekking / climbing with experience senior members / climbers. Extensive experience is required to tackle the Sahyadri's challenges of loose rocks, loose structures, scree, etc.

- i. Lack of Experience of Multi Pitch Climb
- ii. Lack of field experience results into poor judgement, poor skills to climb between loose rocks, loose structures, scree, etc.
- iii. Lack of field experience also results into not knowing the skills to place the bolts, pegs, pitons, etc. in the loose structure, scree, etc. Also skills are not developed to judge the firmness of already placed anchors, or to place the multiple anchors, not knowing the consequences of the fall factor and impact force.

e. Lack of Seriousness and Attention

- i. Lack of co-ordination between climbers
 - ii. Not serious about risks they are taking
 - iii. Casual approach towards climbing
- f. Not proper ratio of experience climbers / instructors with number of participants
Large number of participants compare to experience climbers / instructors will not be able to give proper attention to safety during the
- i. Rock Climbing Expedition
 - ii. Rock Climbing courses
 - iii. Adventure camps
- g. Temptation of photography & selfie at risky spots

II. Natural Risks:

Natural risks occurrence is lower than the human factors but they are not in control of the climber / trekkers

- a. Rock falls
- b. Unseasonal rains
- c. Loose Structures

III. Gear failures:

Accidents may occur due to gear failure

- a. Low quality gear
- b. Defective gear
- c. Wrong use of gear or not used as per guidelines and manuals
- d. Higher impact force on the gear than its capacity
- e. Overused gears

IV. Honey Bees attacks:

During trekking or traditional climbing, rappelling programs sometimes honey bee's attack occurs. Attack is unpredictable. There are some reasons that may disturb the bee's and instigate the attack.



- a. Smoking
- b. Fire Smoke
- c. Deodorants
- d. Rock falls from climbers, movements of monkeys, birds or natural ways
- e. Movement of climbers near honeycomb may disturb honey bees

5. **Risk Management or Safety Precautions:**

The risk factors involved in traditional rock climbing and allied activities can be minimised by way of identifying, studying the risks and its consequences and planning, managing it accordingly. Some points of safety precautions are as follows.

- I. Regular practice of tying knots, rope management and rescue techniques.
- II. Regular practice on rock and keeping physically fit. Practice of structures like off-width cracks, overhangs and climbing down is suggested.
- III. Always respect nature. How much you may be expert or experienced always wear safety gears.
- IV. Regularly practice use of safety gears.
- V. Only completing rock climbing courses are not enough to take challenges in Sahyadri's. Sahyadri Mountain Range is having loose rocks, loose structure, scree, etc. It is advisable to gain enough climbing experience with senior climbers in the various rock structures.
 - a. After few years trekking experience followed by rock climbing courses start with single pitch climbing.
 - b. After enough experience in the single pitch take the multi pitch climb.
 - c. Special attention must be given to gain the experience in climbing loose rocks / structures, scree, etc. Placement of anchors in these structures, taking additional precautions by way of placing multi anchors. Understanding the effect of fall factor, restricting the No. of participants, checking the anchors after passing the load of every climber / participant.
- VI. Planning Expeditions / Adventure camps
 - a. Recce
 - b. Details from books
 - c. Gathering details from previous expeditions, which may emphasise requirement of manpower, equipment, ration, period. It also reveals most important point that the challenge that one is thinking to take is having that level of skill or not. It helps to find the risks / natural risks involved in that particular challenge.
- VII. Avoid to take large No. of untrained participants in the climbing expeditions. Keep proper ratio of experience climbers with participants (See Appendix-II)
- VIII. Control the temptation of photography, selfie at risky spots.



- IX. Use standard gears i.e. equipments which complying the standards of UIAA or with CE marking (see Appendix-I). Use them as per the instructions given by the manufacturer regarding its function and strength etc.
- X. Discard the gear after the period specified in the manufacturer's manual even if it is not used once.
- XI. Do not smoke, do not use deodorants, etc. during the activity.
- XII. Don't stand below the rock fall area while the lead climbing is in process or participants are rappelling.
- XIII. While belaying, the belayer must keep keen watch on the movements of lead climber and communicate properly.
- XIV. Always keep first aid kit ready and regularly update it. Medicines to treat honey bees bite should be included in first aid box.
- XV. It is advisable that some of the team members should know how to give first aid in wilderness and use of medicines.
- XVI. Avoid jumping while rappelling as it may dislodge the anchors.
- XVII. Keep record book of equipment's (Log Book) which can be helpful to discard the equipment at right time.
- XVIII. Update techniques and technical gear knowledge.
- XIX. Remove jewellery and cover long hairs before abseiling.
- XX. Practice rescue techniques.
- XXI. Protect yourself with sling and prusik knot on the main rope while abseiling.
- XXII. Partner check should be performed before starting the activity.
- XXIII. Rule SERENEA or ERNESTA must be followed to establish safe and reliable system of anchor.
- XXIV. While belaying PBUS (Pull Break Under Slide) rule of belay must be followed.

Search & Rescue / Recovery of Dead Bodies

A) Search and Rescue

The Mountain Rescue is different than the rescue activities performed in cities. Mountain Rescue is highly professional activity required knowledge of rock climbing techniques, wilderness first aid, navigation, high level of physical fitness and ability to perform rescue activities in all weather conditions.



Qualification

Qualification for professional rescuer

- i) Search and Rescue Course from recognised Institutes like NIM
Only those Mountaineers who secured 'A' grade in Advance Mountaineering Course from recognised institutes are eligible for SAR Course
- ii) Knowledge of Navigation
- iii) Wilderness First Aid course

Knowledge of walkie-talkie / drone operating is beneficial.

Normally these professional rescuers work voluntarily. In mountain ranges of Maharashtra four types of Rescues are conducted.

- i) When the accident takes place during the rock climbing expedition and the team members are not able to perform the rescue operation of casualty / person in danger who is in-between the cliff. In such rescue operation high techniques of rope management and placement / preparation of anchors are required. If the job is multi pitch rescue then the challenges are higher.
- ii) When the trekkers / picnickers lost their ways in the mountain or stranded in between steep difficult slope in the mountain.
- iii) Recovery of dead bodies from difficult mountainous terrain
- iv) Accidents nearby Water bodies

I. Aim of Rescue:

To save the life of person in danger / casualty in the shortest possible time and minimise the further injury.

II. General Principles / Guidelines:

1. Prevention

Rescues are carried out only after accidents takes place. But it is wise to take preventive measures by proper planning, practice, avoiding over confidence, improving judgements, ability and experience.

2. Rescuer's Safety First

It is said that, "Good rescue is that the rescuer came home safely and great rescue is that the rescuer came home safely with person in danger / casualty." Rescuers must take their safety first. If the rescuer become person in danger / casualty while performing rescue, the situation will be worst.

3. Choose a simple and safe rescue technique and avoid complications and confusion.

4. Always wear safety gears. Partner's check should be performed before starting the rescue.

5. Taking account of situation

- i. Whether the person in danger / casualty can make self-rescue



- ii. If not then group members can make rescue
 - iii. If not then call for the help from outside professional rescuers like MMRCC
6. Take care that there will be no further harm to person in danger / casualty

III. Steps in Rescue

1. Search

The purpose of the search stage is to find out exact location of person in danger / casualty, if not known. Normally in the maximum cases the person in danger is easily traced, in few cases search need to be conducted.

2. Rescue

In this stage person in danger is removed to safe place to be given first aid and evacuated.

3. First Aid / Medical Stage

The purpose of first aid / medical stage is to stabilise the person in danger / casualty and prepare him for evacuation or transport. First aid skills here mean first aid skills to be performed in wilderness.

4. Evacuation

In this stage person in danger / casualty is transported to / from safe location to a location where he can be transported to the hospital or appropriate facility.

5. Management

This stage begins when the accident / incident takes place and ends with safe reach of person in danger / casualty at home / hospital. A quick and fast rescue operation can be possible if done with good management.

a) (Management on the field or the place of accident)

Leader or leaders of rescue team manages the operation on the field as the case may be

b) (Management outside the Field)

A Co-ordinator who does the work of co-ordination between the various teams like rescue teams, police, villagers, doctors and ambulance, etc.

B) Recovery of Dead Bodies

Certain precautions must be taken before / during recovery of dead bodies.

1. Precautions

While handling dead bodies (especially decomposed bodies) rescuer's must take full precautions by way of the following

- i) Wearing PPE i.e. gloves, surgical mask, goggles, face shield etc.
- ii) Putting body in thick plastic bag & thereafter putting it in opaque body bag
- iii) Perform hand sanitization immediately
- iv) Disinfecting the equipments or discarding some of it after completing rescue process
- v) Avoid direct contact with the body fluids from the dead body
- vi) Do not smoke, drink or eat during the process without sanitization
- vii) Avoid to touch your eyes, mouth or nose



- viii) After completing the process the disposable items such as gloves, protective clothing's etc. Should be disposed off in a plastic bag.
- ix) Those who are regularly involved in rescue operations it is advisable to immunize against Hepatitis B, Tetanus, etc.

2. Photography

Photography (preferably video shooting) must be done to avoid any legal difficulties in future

3. Panchnama

Police personnel will do the PANCHNAMA as per their procedure

Qualities of a Rescuer's and Insurance

A. Qualities:

1. Interest
2. Training and Update the knowledge
3. Co-operation
4. Physical fitness
5. Leadership qualities
6. Fearless and No phobias
7. Knowledge of first aid and procedures to be followed before, during & after the rescue (i.e. informing police authorities, sarpanch, local bodies, villagers, etc.)

B. Insurance:

Rescuers those who are regularly involved in rescue activity must insure themselves for their safety

Methods and Techniques

The method or technique depends upon the situation / condition of the casualty, terrain and source of evacuation. Use of latest advance equipments is more helpful in speedy rescue process. There are mainly two techniques which are used in mountain rescue.

1. Uplifting / Hauling

Technique of single pulley or Z pulley is used to uplift the casualty. The Uplifting technique requires more efforts, time and creates more force on anchors. This method is useful where easy approach of evacuation is available after Uplifting or there is much more hurdle in evacuation after lowering the casualty i.e. difficult terrain, multi pitch rappelling, water bodies etc.

2. Lowering

In the lowering, Double Carabiner Break technique, Descender, Munter Hitch is used. If accident occurs on pinnacle then lowering method is the only option in Sahyadri.



Methods of Carrying the Casualty

There are many methods used to carry casualty during the evacuation but not all are useful in the mountainous terrain. Some of the useful methods are as given below:

1. When only one person is available to carry the casualty

A. When the casualty is conscious

i) When the casualty is conscious and can walk (Human Crutch Method)

(VIDEO CLIP AND PHOTO)

If the casualty is in conscious condition & able to walk, then he will be assisted / supported by the fellow person. This method is called Human Crutch Method.

ii) When the casualty is conscious but unable to walk (Pick a Back Method)

If the casualty is conscious but not able to walk then carrier person takes the casualty on his back and walk. However, the carrier person must be strong enough to carry the casualty. In this method casualty can be carried by 2 ways.

a) Taking casualty on the back with the help of arms

(VIDEO CLIP AND PHOTO)

b) With the help of rescue coil (Mountaineers coil)

(VIDEO CLIP AND PHOTO)

B) When the casualty is in unconscious condition

i) Fire Fighters Carry Method

(VIDEO CLIP AND PHOTO)

When the casualty is in unconscious condition then Fire Fighters Carry Method is more suitable.

2) When there are two or more persons available to carry the casualty

i) Fore and Aft Method

(VIDEO CLIP AND PHOTO)



ii) Carrying casualty with the help of stretchers

(VIDEO CLIP AND PHOTO)

Equipments - Equipments used during the SAR operation & Body recovery

PPE (preferably every rescuer should have)

1. SAR Torch
2. Carabiners
3. Hand Gloves
4. Goggles
5. Surgical Mask
6. Hand Sanitizers
7. Harness
8. Helmet
9. Water Bottle

Common Gear

Few PPE sets must be available as common

1. Rope (Static - preferably 12 mm)
2. Jumar
3. Pulley
4. Carabiners (Screwgate)
5. Tapes and Rope Slings
6. Stretchers
7. Disinfectant
8. Wilderness First Aid Kit
9. Walkie-Talkie

Gear for Body Recovery

1. Thick plastic bag
2. Opaque body bag



Mountain Rescue Stretchers:

There are many types of stretchers available in the market. However, out of those some suitable stretchers are useful in mountain rescue. Nowadays, stretchers specially made for mountain rescue are available. They are available in the form of Basket, Scoop, Roll up, Spinal board, etc. Stretchers used in the mountain rescue are likely to be having following features:

1. Light weight
2. Durable
3. Adjustable size
4. Easy and comfortable to handle

Stretchers are broadly categorized as follows:

1. Non foldable (*VIDEO CLIP AND PHOTO*)

These kind of stretchers are non foldable and rigid. Not comfortable to carry in narrow or confined places.

2. Foldable (*VIDEO CLIP AND PHOTO*)

These kind of stretchers are foldable can be used in narrow places and handy in travelling.

3. Roll up (*VIDEO CLIP AND PHOTO*)

Roll up stretchers are more useful in mountains. They are prepared to use in confined spaces, height, depth and horizontal rescue. They are also handy in travelling.

Anchors

Anchors plays very important role in mountain rescue when casualty is in between the rock wall and at confined space.

1. Natural Anchors

Tree's, chock stones, rock spikes can be used as Anchors. Big trees are treated as bomb proof Anchors.

2. Already placed anchors

These are the Anchors like bolt, pitons, etc. placed by the climbers during previous expeditions. They are less reliable so to be used after careful inspection and judgment of their firmness.

3. Newly Placed Anchors

Anchors placed by the rescuers themselves are more reliable & trustworthy. Of course reliability is depending on the experience and placement technique of the person who places it.

4. Multiple Anchors

Rescue process creates heavy load on the anchors, equipment and ropes. It is advisable to place multiple anchors to protect the anchoring system if one of them fails.



SERENEA / ERNESTA

While preparing anchors for belay system or rescue purpose the rule SERENEA / ERNESTA should be followed to establish safe and reliable anchor system.

SOLID – Anchors established should enough to hold a heavy load

EQUALISED – Each piece in the anchor should share the load equally

REDUNDANT – There should be more than one piece in the anchor, i.e. 2 bolts, 2 pitons

EFFICIENT – The anchor should be such as to be established in minimum time and gear can be used in the system efficiently

NO EXTENSION – It means that anchors are to be constructed in such a way that if one anchor piece or point fails there should not create any slack between two anchors or extension and create a sudden load on the other piece or anchor

ANGLES – Placement of two points / pieces should be made in such a way that the angel created between two slings should be 60 degree or less

Hurdles in Rescue

1. Difficult terrain
2. Heavy rain
3. Fog
4. Rock Fall
5. Disturbances in communication

KNOTS, HITCHES AND BENDS

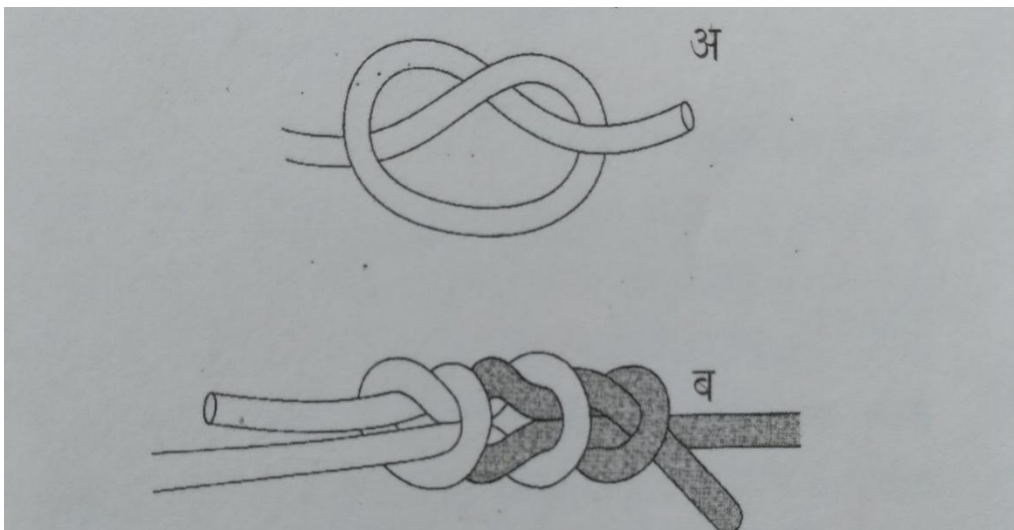
DISCLAIMER: The information in the form of sketches / graphics / video clips provided here is for general informational purpose only & not to be considered as a substitute for proper training and experience. Training and practical experience is needed to adopt / learn & get expertise in it under the guidance, supervision of expert faculty. AMGM is not responsible for any kind of mishap held during the activities conducted relying on those sketches / graphics / video clips.

Knot – A knot is tied in a rope or piece of webbing

Hitch – A hitch connects a rope to another object like a Carabiner or even another rope

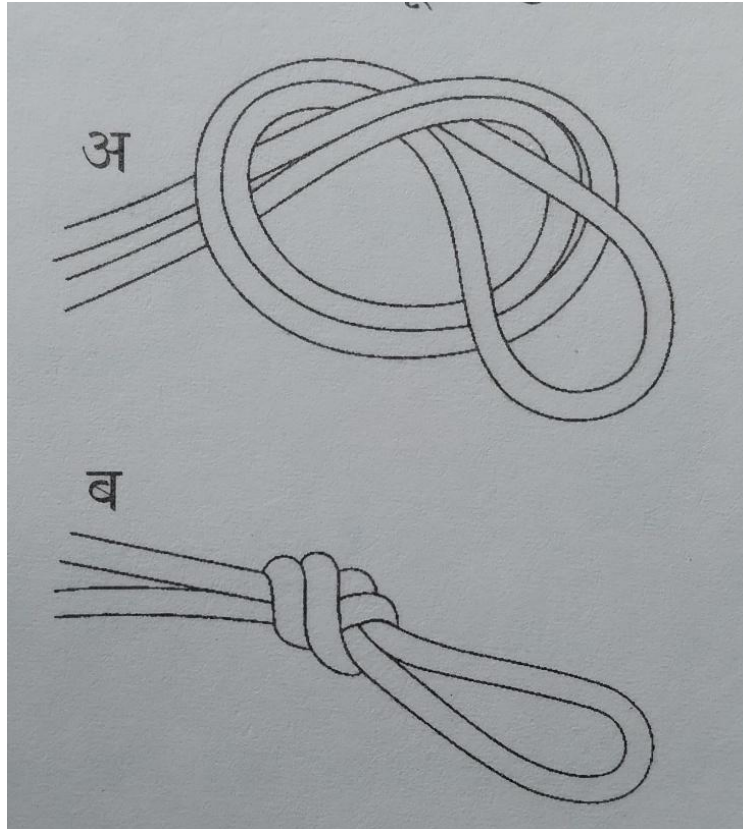
Bend – A bend is a knot that joins two ropes together or creating a loop out of cord or webbing

1. Overhand / Thumb / Safety knot



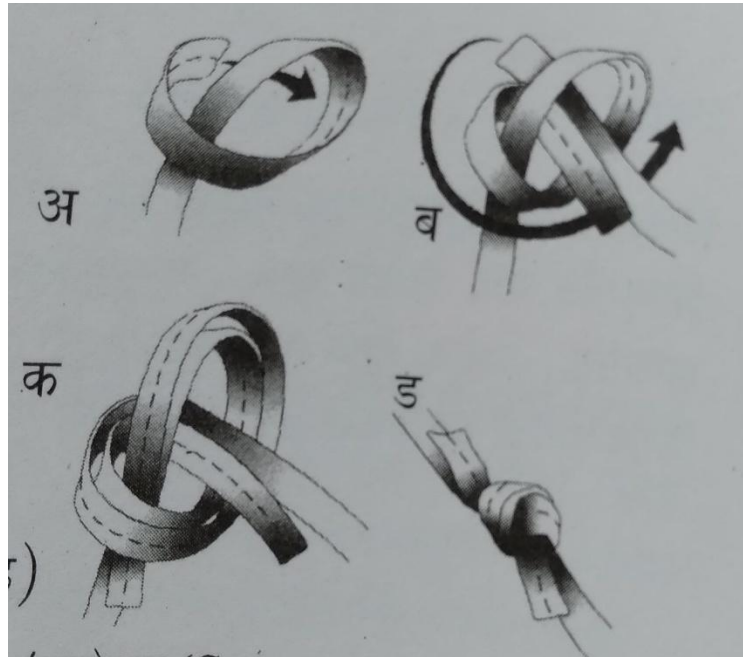
(To protect the main knot from slipping)

2. Overhand Loop



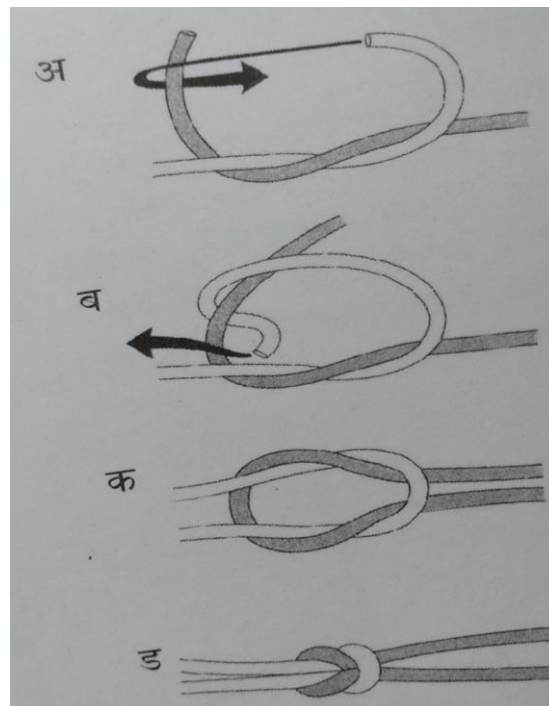
(To prepare the loop)

3. Tape / Water Knot



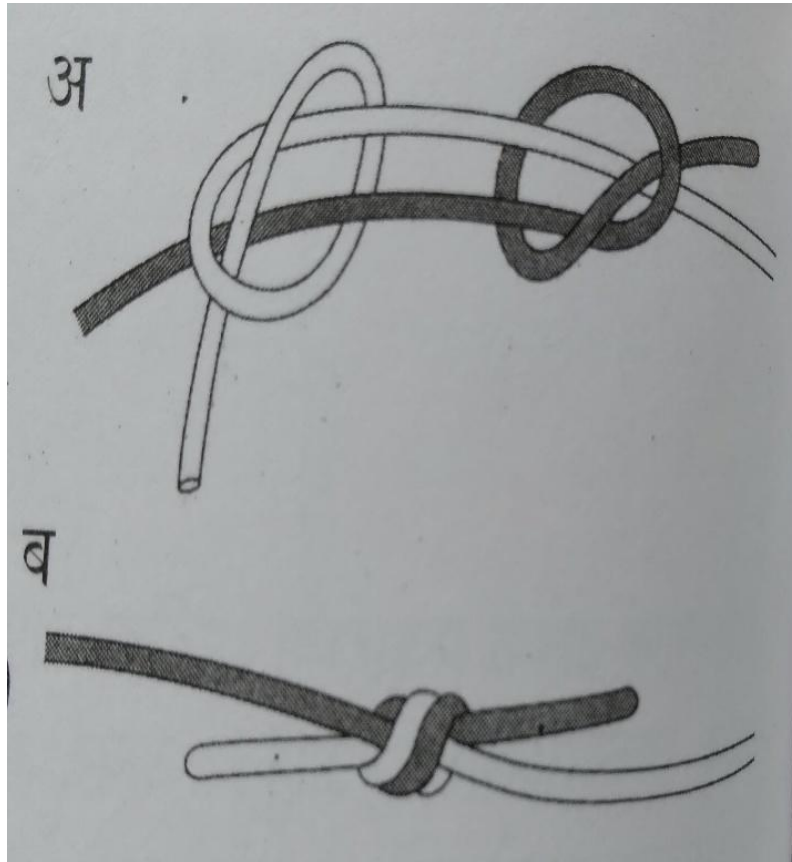
(To connect or tie up two ends of tape)

4. Reef Knot



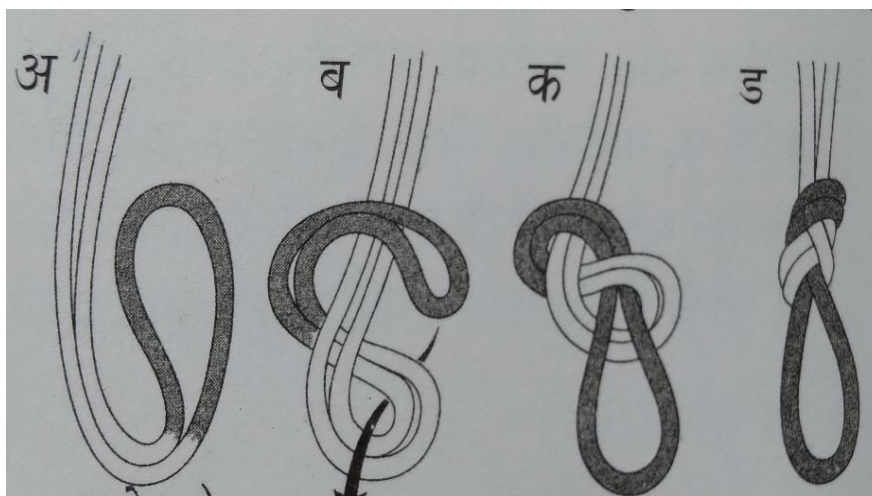
(To join two equal diameter ropes)

5. Fisherman / Grapevine Knot



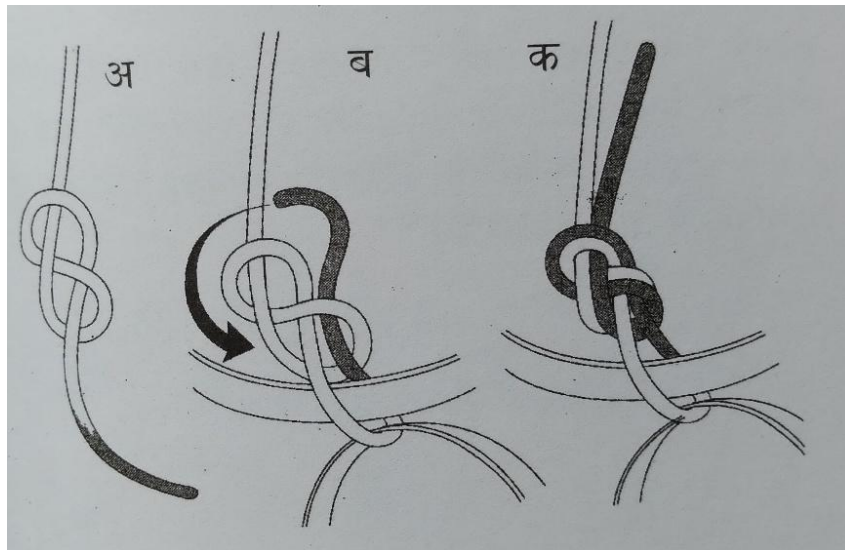
(To join two equal diameter ropes)

6. Figure of eight

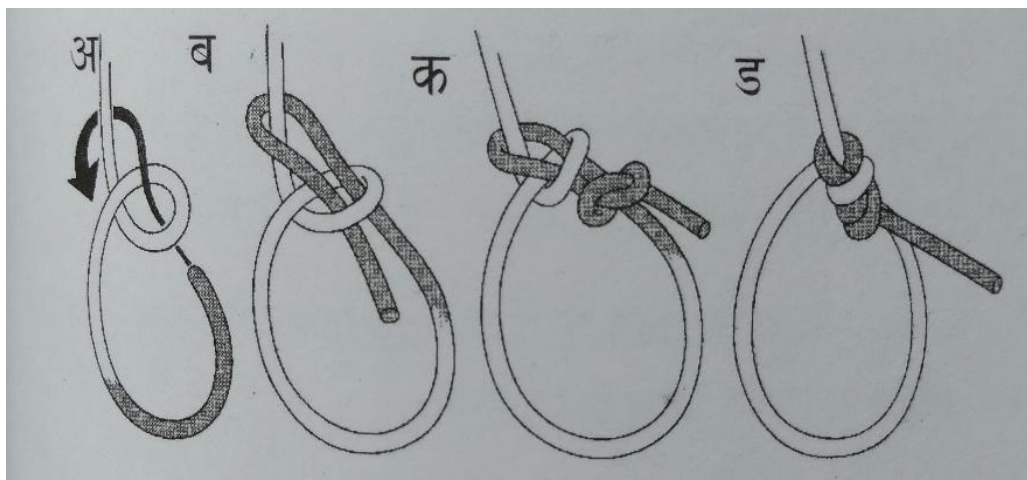


(To connect the rope to some anchor)

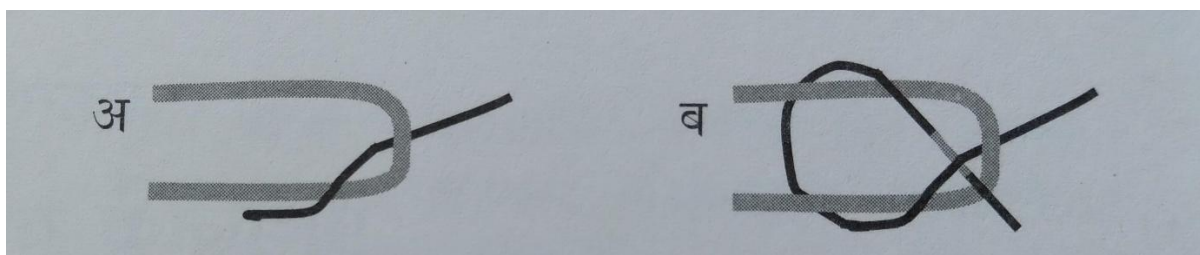
7. Rewoven / Rethreaded figure of Eight



8. Bowline

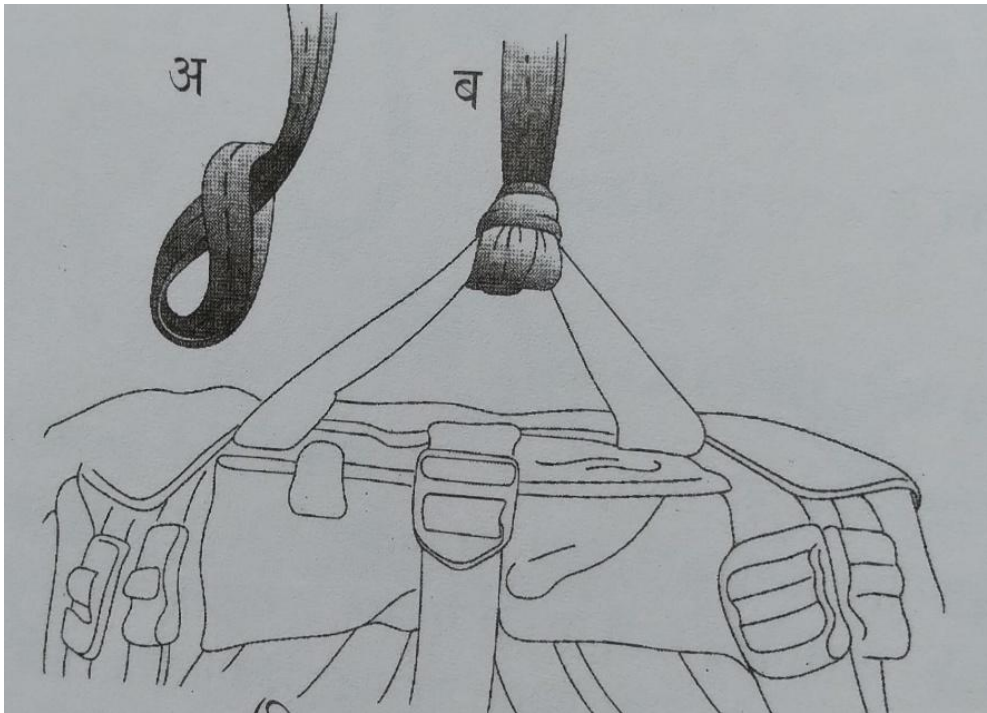


9. Sheet bend



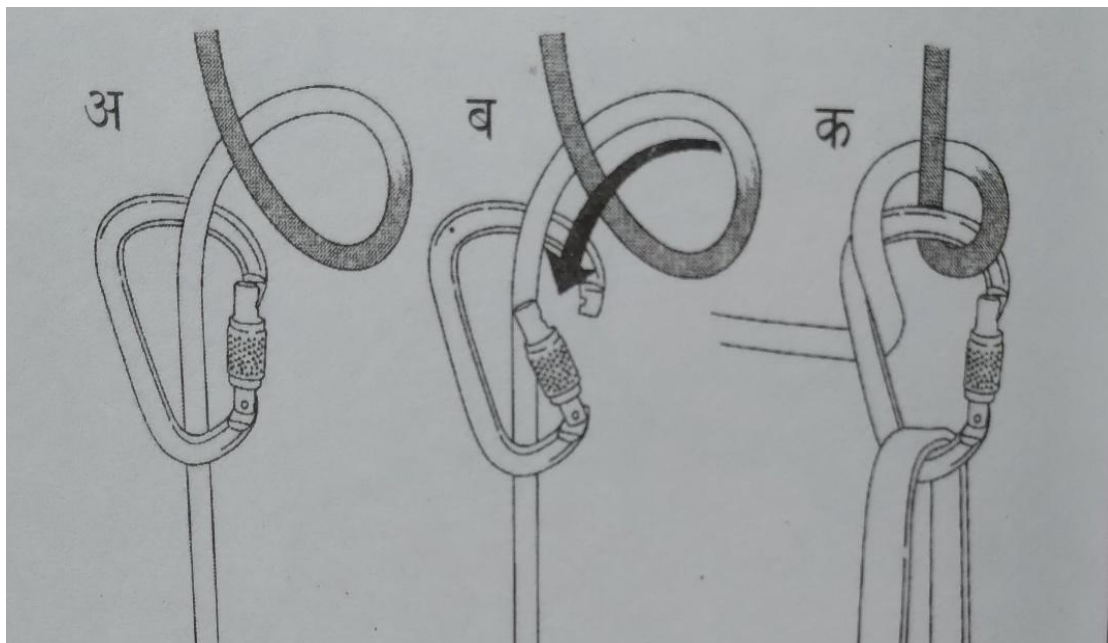
(To connect unequal diameter ropes)

10. Girth Hitch



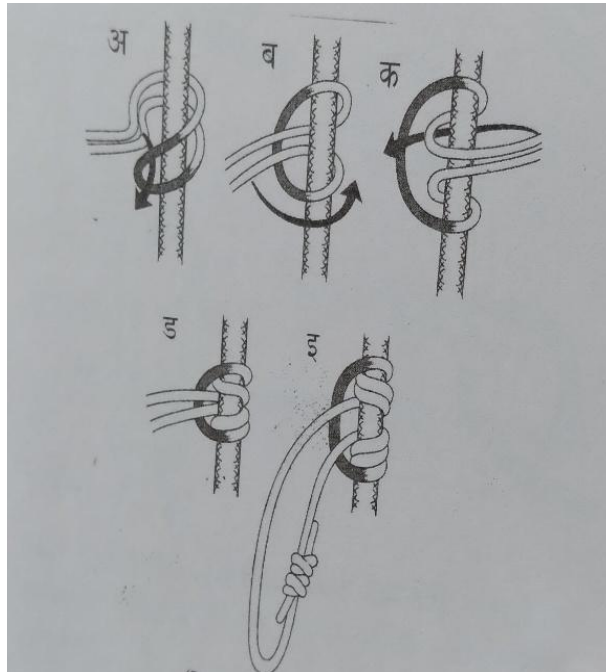
(To connect runner to harness)

11. Italian Hitch / Munter Hitch



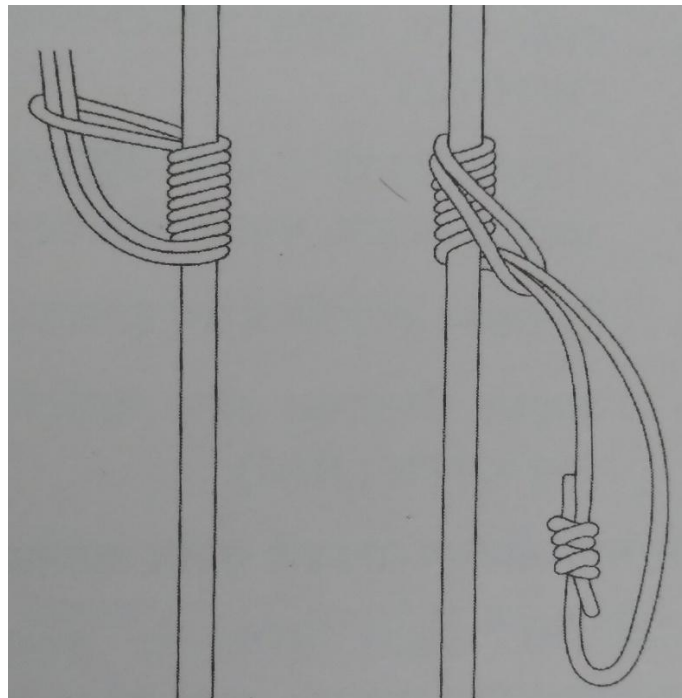
(To belay, rappel or rescue purpose)

12. Prusik



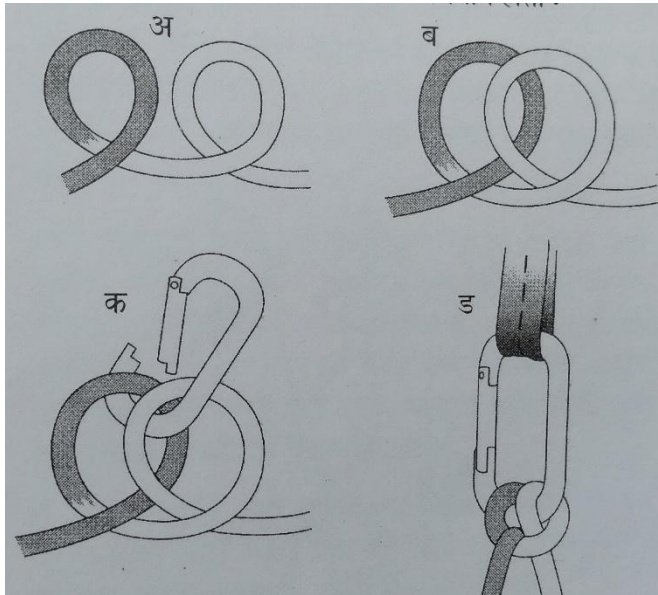
(To Jumar or safety)

13. Klemheist



(To Jumar)

14. Clove Hitch



(To connect or attach rope to some anchor)

Rescue Teams and Contact Details

Various Institutes / Teams under the Central Coordination Committee of AMGM are conducting Rescue activities.

Institute / Club	Area	Coordinators Name & Contact Number
Maharashtra Mountaineers Rescue Coordination Centre (MMRCC)	All over Maharashtra	1. Rahul Meshram 2. Sunil Bhatia 3. Ashish Mane Contact Number 7620230231

Ambulance Service

Contact Number - **108**



Following chart will help to fix the level / stage of climber to take the responsibilities as per their qualifications and experience (**Main Source of reference - GGIM SOP**)

Climber Level	Skills Required	Training / Qualifications	Experience Required	Capability / Responsibility
1. Beginner	Physically fit to complete the trek / course /Rappelling activity safely			Participant / Support member
2. Novice	-Tie Basic knots -Knowledge of equipment handling, climb & belay top rope -Well versed with climbing calls (communications)	-Basic Rock Climbing Course / Basic Mountaineering Course from any recognized institute / club or Institutes like NIM, ABVI, HMI, JIM, GGIM or conducted by registered institute / club	-At least consistently 2 years to be spent on natural climbs with minimum 10 climbs on single pitch to qualify for Intermediate level. (Areas for practice are Gandhi tekdi (SGNP), Kanheri caves, Sinhagad, Plus Valley, CBD, Jivdhan, GGIM training routes)	-All activities applicable to beginner -Top rope climbing -Top rope belay with assistance of an advance climber
3. Inter-mediate	-All skills required for novice -Safely lead and belay on natural single pitch routes	-Advance Rock Climbing Course / Advance Mountaineering Course -First aid course conducted for wilderness or covered the outdoor activities	-At least 5 years be spent on natural climbs with minimum 20 climbs on single / multi pitch to qualify Advance level. Pinnacle climbing like Tail Baila, Kalakrai, Lingana, etc.	-All activities applicable to novice -Lead climb -Lead belay
4. Advance	-All skills required for intermediate -Should safely rappel, retrieve, set up anchor system independently -Can safely place protections on trad climbing independently -Familiar and competent with rescue techniques and wilderness first aid skills	-Qualification required for intermediate	-Should have spent atleast 7 years with Senior Climbers & gained the experience in climbing pinnacles which is having pitches of loose rocks, scree, etc -Lead climb on at least 5 pinnacles -Placement of anchors in these structures -Additional precautions of placing multi anchors, understand the effect of fall factor, etc.	-All activities applicable to intermediate -Lead the group -Report before and after the activity - Documentation of new routes

NOTE: The information given in the above table regarding qualifications, experience and responsibilities is of guiding nature and there is no hard and fast rule regarding it.



Appendix - I

(Symbolic signs affixed on equipment)

EN : It means Euro Norms. Euro Norms are the Standards set by the European Nations regarding products to be sold in the European Economic Area. These standards are technical specifications defining requirements for products, production process, services or test methods which are to be sold in the European Economic Area. If the manufacturer / organization fulfils the norms set by the European Nations then it can affix the symbolic sign '**EN**' on their product.

EN Norms and Standards: <https://www.en-standard.eu/>

CE : '**CE**' is a short form of French word 'Conformite Europeene'. In English 'European Conformity'. '**CE**' symbol affixed on the product shows that the product is fulfilling the standards set by the European Nations regarding health, safety and environment. Before affixing the '**CE**' marking on the product, the organization responsible for affixing the '**CE**' marking has to meet mandatory requirements of identifying and complying with product related directives and standards. Some directives include an option for responsible organization to provide a 'Self Declaration' of Conformity stating that the product fulfils the requirements of applicable directives. However, some of the directives required to be further assessed by 'Notified Body' declared by directives. Products affecting health and/or safety requires specific certificate from 'Notified Body' about assessment/test.

After fulfilment of directives & standards organizations can give 'Self Declaration' about it and affix 'CE' marking of the product. In case of the products which require further assessment/tests to be comply with 'Notified Body' specified by directives then organizations after fulfilment of additional requirements can put 'CE' marking and four digit number after the CE marking which is assigned to the Notifying Body. For example: 'CE 0123' indicates that Notified Body 'TUV SUD' is involved in Conformity assessment.

CE Norms and Standards:

https://single-market-economy.ec.europa.eu/single-market/ce-marking_en

UIAA : UIAA is an abbreviation of 'United International Alpinist Association'. In French 'Union Internationale des Associations d'Alpinisme'. In English 'International Mountaineering & Climbing Federation'. The UIAA is an international governing body of climbing and mountaineering and represents climbers and mountaineers around the world on a wide range of topics related to mountain safety, sustainability and competition sport. The UIAA develops and maintains safety standards for climbing equipment. These standards are followed worldwide by the manufacturers of climbing equipments.

UIAA Norms and Standards: <https://theuiaa.org/>

Appendix-II

Ratio of climbers / participants to instructor should be 1:4, 2:8, i.e. 1 instructor against 4 participants is ideal. However, the ratio also depend upon the nature of activity, experience of participants, terrain, weather conditions, children participants included, experience of instructor, etc.

SOP Drafting Committee

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MMRCC
महाराष्ट्र माउंटनिअर्स
रेस्क्यू कोऑर्डिनेशन सेंटर

**24 X 7 RESCUE HELPLINE NUMBER
FOR REMOTE AND HILLY AREAS**



7620-230-231

**डोंगराळ व दुर्गम भागातील आपतकालीन
मदतीसाठी २४ तास संपर्क क्रमांक**

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