COMPILATION OF SUMMARY
SPECIALISED SUBJECTS (SD/SW)
ARMY

Dear Cadets,

1. This is a compilation of all the summaries given after the chapters in SD/SW Cadet's Hand Book for Specialised Subjects (Army). The aim of compiling this summary is to provide the cadets, an opportunity for quick revision of important aspects of every chapter in a brief and to the point form.

2. The colour code used for highlighting syllabus deleted for the year 2021-22 by DGNCC as also the syllabus which is meant only for 'C' Cert Examination are as given below: -

a) Syllabus applicable only for 'C' Cert Exam, not for 'B' Cert Exam:
TURQUOISE BLUE

3. In addition to the above, the marks distribution for both 'B' and 'C' cert exams as given in SNCCO 2022 are also given for cadets to plan their preparations for the exams.

18 Jan 2023

Sd/xxxxxxxxxxxxx
(Manish Chowdhary)
Colonel
Commanding Officer
The Young Cavaliers

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MARKS DISTRIBUTION FOR 'B' CERTIFICATE EXAMINATION AS PER SNCCO 2022

S No	Subject	Maximum Marks		
		Theory	Practical	Total
(a)	(b)	(c)	(d)	(e)
Paper – I (DRILL)				
1	Drill	**10**	**80**	**90**
Paper – II (WT)				
2	Weapon Training	**35**	**25**	**60**
Paper-III (MISC)				
1	The NCC	**05**	**--**	**05**
2	National Integration	**30**	**--**	**30**
3	Personality development	**65**	**--**	**65**
4	Leadership	**08**	**--**	**08**
5	Disaster Management	**15**	**--**	**15**
6	Social Awareness & Community Development	**30**	**--**	**30**
7	Health & Hygiene	**25**	**--**	**25**
8	Adventure Training	**15**	**--**	**15**
9	Environment Awareness & Conservation	**00**	**--**	**00**
10	Obstacle training	**07**	**--**	**07**
11	General Awareness	**00**	**--**	**00**
	Total (Paper III)	**200**	**--**	**200**
Paper – IV (SPECIALISED SUBJECTS: ARMY)				
1	Armed Forces	**20**	**--**	**20**
2	Map Reading	**25**	**15**	**40**
3	Field craft & Battle craft	**25**	**15**	**40**
4	Intro to Inf Wpns & Eqpt	**15**	**--**	**15**
5	Military History	**15**	**--**	**15**
6	Communication	**10**	**10**	**20**
	Total (Paper IV)	**110**	**40**	**150**
Grand Total		**355**	**145**	**500**

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MARKS DISTRIBUTION FOR 'C' CERTIFICATE EXAMINATION AS PER SNCCO 2022

S No	Subject	Maximum Marks		
		Theory	Practical	Total
(a)	(b)	(c)	(d)	(e)
Paper – I (DRILL)				
1	Drill	**10**	**50**	**60**
Paper – II (WT)				
2	Weapon Training	**10**	**55**	**65**
Paper-III (MISC)				
1	The NCC	**00**	--	**00**
2	National Integration	**00**	--	**00**
3	Personality development	**75**	--	**75**
4	Leadership	**10**	--	**10**
5	Disaster Management	**20**	--	**20**
6	Social Awareness & Community Development	**35**	--	**35**
7	Health & Hygiene	**35**	--	**35**
8	Adventure Training	**00**	--	**00**
9	Environment Awareness & Conservation	**20**		**20**
10	Obstacle training	**15**	--	**15**
11	General Awareness	**15**		**15**
	Total (Paper III)	**225**	**--**	**225**
Paper – IV (SPECIALISED SUBJECTS: ARMY)				
1	Armed Forces	**10**	**--**	**10**
2	Map Reading	**30**	**15**	**45**
3	Field craft & Battle craft	**30**	**15**	**45**
4	Intro to Inf Wpns & Eqpt	**15**	**--**	**15**
5	Military History	**20**	**--**	**20**
6	Communication	**05**	**10**	**15**
	Total (Paper IV)	**110**	**40**	**150**
Grand Total		**355**	**145**	**500**

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SPECIALISED SUBJECTS
(ARMY)

ARMED FORCES (AF)

SUMMARY

1. The Indian Army has seven Commands ie. Northern, Western, Central, Southern, South Western, Eastern and Training Command.

2. The Navy is organised into three Commands i.e Western Naval Command, Eastern Naval Command and Southern Naval Command.

3. The Air Force is organized into seven commands i.e Western Air Command, Central Air Command, Eastern Air Command, South Western Air Command, Southern Air Command, Training Command and Maintenance Command.

4. The Combat Commands of Indian Army comprises Corps, Division and Brigades. These are commanded by an Officer of the rank of Lieutenant General, Major General and Brigadier respectively.

5. **There are three major categories of army based on their role**:-

(a) Fighting arms - Armour, Infantry and Meachanised Infantry.

(b) Supporting Arms- Artillery, Engineers, Army Aviation, Army Air Defence and Signals.

(c) Supporting Services – Army Service Corps, Army Medical Corps, Army Ordnance Corps, Corps of Electronic and Mechanical Engineers etc.

6. Field Marshal is an honorary rank given to a General for his invaluable services rendered to our country.

7. Admiral of the Fleet is an honorary rank given to an admiral for his invaluable services and will continue to serve the rest of his term with the honorary rank.

8. Marshal of the Air Force is an honorary rank given to an Air Chief Marshal for his invaluable services.

9. Indian Armed Forces render honours and awards to the personnel excelling during peace and war.

10. **Entry into Police Services as an Officer**.

(a) Passing All India Civil Services Examination conducted by All India UPSC Civil Services Examinations.

(b) Promotions from State Cadre Police Services.

11. **The other Police organizations are as under**:-

(a) Border Security Force.

(b) Central Industrial Security Force.

(c) Central Reserve Police Force.

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(d) Indo-Tibetan Border Police.
(e) National Security Guards.
(f) Special Protection Group.
(g) Sashastra Seema Bal (SSB).
(h) Central Bureau of Investigation.
(j) Indian Income-tax Department.
(k) Directorate of Revenue Intelligence.
(l) Central Economic Intelligence Bureau.
(m) Directorate General of Central Excise Intelligence.
(n) National Investigation Agency.
(o) Narcotics Control Bureau.
(p) Bureau of Police Research and Development (BPRD).
(q) National Crime Records Bureau (NCRB).
(r) Central Forensic Science Laboratory.
(s) National Institute of Criminology and Forensic Sciences.
(t) State & Union Territory Police.

12. **Other Central Investigation and Intelligence Agencies are as under**:-

(a) Central Bureau of Investigation.
(b) Indian Income-tax Department.
(c) Directorate of Revenue Intelligence.
(d) Central Economic Intelligence Bureau.
(e) Directorate General of Central Excise Intelligence.
(f) National Investigation Agency.
(g) Narcotics Control Bureau.
(h) Bureau of Police Research and Development (BPRD).
(i) National Crime Records Bureau (NCRB).
(j) Central Forensic Science Laboratory.
(k) National Institute of Criminology and Forensic Sciences.
(l) State Police.
(m) Reserved State armed police forces & their Role.
(n) Criminal Investigation Department.
(o) Traffic police.

13. **Central Armed Police Forces Cadre and Personnel**.

(a) Gazetted Officers.
(b) Subordinate Officers.
(c) Constables.

MAP READING (MR)

SUMMARY

1. Map is the geographical representation of land on a paper.

2. Scale is a proportion of two points on map and two points on the ground.

3. Relief is applied to the shape of the ground in a vertical plane.

4. Contour is an imaginary line following surface of the ground at a certain level.

5. Gradient is the slope of the ground expressed as the angle the ground makes with the horizontal.

6. Cardinal Points are the four major directions North, South, East and West.

7. There are three types of North, True North is the direction of North pole.

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Magnetic North is the direction which a magnetic needle points, Grid North is the direction of the North South grid lines on a map-point.

8. Magnetic Variation is the difference between True North and Magnetic North. It depends on time and place.

9. Grid Convergence is the angular difference between Grid North and True North.

10. Bearing: The clock wise angle formed by a straight line joining two points and direction of North.

11. The service protractor "A" Mark IV is an instrument used for plotting and measuring bearing on the map.

12. Setting of Map: A map is said to be set or oriented when it is placed such that it corresponds directly with the ground. There are two methods of setting a map- by compass and by objects on the ground.

13. Methods to find own position on map are- by resection, by map spotting or by bearing and distance.

14. Types of navigation: Navigation during day and Night navigation.

15. **Methods are used to identify objects from map to ground**.
   (a) Bearing and Distance Method.
   (b) Direction and Distance Method.
   (c) By Estimation Method.

16. To find out an object indicated on ground on the map is called ground to map.

17. **Use of Goggle Maps & Applications Directions and Transit. Business Listings**.
   (a) Indoor Maps
   (b) Google Local Guides
   (c) Mobile App
   (d) **Applications**.
      (i) Google Handwriting.
      (j) Trusted Contacts.
      (k) Google Trips.
      (l) Google Arts & Culture.
      (m) Chrome Remote Desktop.
      (n) Google Opinion Rewards.
      (o) Android Auto.
      (p) Wallpapers

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FIELD CRAFT / BATTLE CRAFT (FC & BC)

SUMMARY

1. Field Craft is an aspect of military training which relates to the conduct of a soldier in face of the enemy. It's an art of using the ground and the weapon available to the best of one's own advantages.

2. **Methods of Judging Distance**.

(a) Unit of Measure.
(b) Appearance Method.
(c) Section Average.
(d) Key Range.
(e) Halving.
(f) Bracketing.

3. **Types of Ground**.

(a) Broken Ground.
(b) Flat and Open Ground.
(c) High Ground.
(d) Dead Ground.

4. **Landmarks**. .An object, which is prominent on the ground and which is used in verbal orders to explain the ground in front.

5. **Target**. It is an object having a tactical significance which is indicated with a view to bring down fire on it.

6. **Reference Point**. .A prominent and unmistakable object, with the help ofwhich you can indicate other land marks or targets. A reference point should be specific. Things are seen due to

(a) Shape.
(b) Shine.
(c) Shadow.
(d) Spacing.
(e) Smoke.
(f) Sound.
(g) Movement.

7. **Camouflage**. The various measures include.

(h) Use of Disruptive Pattern Clothing and Local Vegetation.
(i) Camouflage of Face.
(j) Camouflage of Equipment.
(k) Helmet.
(l) Use of Hessian Cloth.
(m) Use of Camouflage Net.
(n) Camouflage of Packs.
(o) Camouflage of LMG.
(p) Camouflage of Rifle.

8. **There are two types of cover**:-

(a) **Cover from Fire**. This implies that the concealed person is protected both from view and fire of weapon.
(b) **Cover from View**. In this type of cover, a person is concealed only from view or from being seen not from fire.

9. Field Signals is one of the ways of passing of message with the help of pre-determined codes and signals.

(a) Signals with hand.
(b) Signals with Weapons.
(c) Signals with Whistle.

10. Field signals are alternate means of giving orders and control troops when voice control is not possible like: -

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(a) Battle Noises.
(b) Need for silence.
(c) Intervening distances are too large.

11. The Field signals used during day are different form ones used at Night. These could be:-
(a) Other Methods of Communication.
(b) Radio.
(c) Dispatch Rider.
(d) Runners.

12. **Basic Considerations for Fire and Movement**.
(a) No movement on exposed ground without covering fire.
(b) Control by the commander.
(c) The angle of covering fire from direct firing weapons should be as wide as possible w/o loss of control or time.
(d) Full use of available cover.
(e) Optimum use of all available weapons.

13. **The ideal fire position should: -**
(a) Provide cover from fire.
(b) Provide cover from view.
(c) Afford a good view of the ground to be watched or target to be engaged.
(d) Provide room in which to use the weapon freely.
(e) Have a covered approach.
(f) Be easy to advance from.

14. **The various section formations are** :-
(a) Single file.
(b) File.
(c) Arrow Head.
(d) Diamond.
(e) Spear Head.
(f) Extended Line

15. Knots are ability to join two pieces of material/rope together. **Important types of knots are**: -
(a) Thumb Knot.
(b) Overhand Knot.
(c) Figure Eight Knot.
(d) Thief Knot.

16. **Lashing**. The method employed to tie with ropes, poles, or any rope to a stationary object to securely hold it in place is known as Square Lashing and Frapping Turns.

17. **Stretchers**. For evacuation of any injured or causality stretchers are important to be known and used.

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INTRODUCTION TO INFANTRY WEAPONS & EQUIPMENTS (INF) SUMMARY

1. 5.56 INSAS Rifle is the personal weapon of Indian Army. INSAS Rifle is 25% lighter and has 70% less recoil as compared to 7.62mm SLR. INSAS Rifle is lighter, compact and easy to fire. (INSAS-Indian Small Arms System).

(a) **Types of ammunition used**: -
  (i) Ball round.
  (ii) Tracer round.
  (iii) Blank round.
  (iv) High Density cartridge.

2. Infantry Battalion is basic fighting unit of Indian Army. It can fight an opponent independently or as part of a larger force. The strength of an Infantry Battalion is 20 officers, 42 JCOs, 794 other ranks.

(a) Section is the smallest fighting unit of a Battalion.
(b) Capabilities are: -
  (i) Self-reliance.
  (ii) Ability to hold ground.
  (iii) Adaptability.
  (iv) Mobility.

3. Characteristics of company support weapons: -
(a) 7.62 mm Dragunov Sniper Rifle.
(b) 7.62 mm Medium Machine Gun.
(c) 30 mm Medium Grenade Launcher.
(d) 84 mm Rocket Launcher.

4. Characteristics of infantry battalion support weapons should be known by the cadets.

5. The infantry battalion support weapons causes' maximum casualty to the enemy.

6. Used both in offensive, defensive and special operations against the enemy.

7. Types of infantry battalion support weapons – 81 mm mortar and Anti-tank guided missile.

8. Characteristics of 81 mm mortar and anti-tank guided missiles – weight, range, rate of fire, muzzle velocity, elevation etc.

MILITARY HISTORY (MH) SUMMARY

1. Field Marshal KM Cariappa, OBE was the first native Indian Chief of Army Staff of the Indian Army. He is only among three Indian Army officers to hold the highest rank of Field Marshal. He was appointed as the Commander-in-Chief of the Indian Military in 1949, received the rank of Field Marshal On 14th January 1986 at the age of 87.

2. The Param Vir Chakra (PVC) is India's highest military decoration award for highest degree of valour or self-sacrifice in the presence of enemy. The PVC was

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established on 26 January 1950 by the President of India. The medal was designed by Mrs Savitri Khanolkar.

3. CHM Piru Singh Shekhawat, PVC on 17 July 1948, Company Havildar Major Singh was posthumously was awarded the India's highest military decoration, the Param Vir Chakra.

4. Maj Shaitan Singh, PVC was awarded ParamVir Chakra, the highest wartime gallantry medal, posthumously, for his outstanding leadership during 'Battle of Rejang La'.

5. Captain Vikram Batra, PVC was posthumously awarded with the ParamVir Chakra for his actions during the 1999 Kargil Conflict. He led one of the toughest operations in mountain warfare in Indian history.

6. India has fought four wars with Pakistan so far, 1947-48 War,1965 War,1971 War and Kargil Conflict

7. **War of 1965.**

(a) Pakistan launched Operation Gibraltar to support insurgency in J&K against Indian rule.
(b) In retaliation India launched Operation Grand Slam in western sector against Pakistan.
(c) The famous battles of 1965 war include Battle of Asal-Uttar, Battle of Dograi etc.
(d) Battle of Chawinda was the largest tank battle in the history after World War II.

8. **War of 1971.**

(a) In early1971, India declared its full-support for the Bengali rebels, Known as Mukti Bahini.
(b) Battle of Longewala was fought on 4 December 1971.
(c) On16 December 1971, more than 90000 Pakistani soldiers surrendered at Dhaka.

9. **Operation Meghdoot, Siachen Glacier** The Siachen Glacier became a bone of contention following a vague demarcation of territories in the Karachi Agreement of 1949, the boundary demarcated as Actual Ground Position Line beyond point NJ 9842 and both India and Pakistan occupying positions on both sides.

10. **Kargil** Conflict 1999 was fought on the heights of Kargil and Drass in 1999. In mid-1999 Pakistani paramilitary forces and Kashmiri insurgents captured deserted, but strategic, Himalayan heights in the Kargil district of India. Indian forces painstakingly recaptured all posts one after another in a bloody conflict. Operation Vijay was declared success on 26 July1999.

COMMUNICATION (C)
SUMMARY

1. **Line.** This is the basic means of signal communications for a force which is static.

2. **Radio Communication.** Radio communication involves Net Radio and Radio Relay. Net radio is the basic means of signal communication for any mobile force.

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3. **Radio Relay.** Radio relay implies that a series of radio transmitters and receivers normally spaced 20-35 Km apart and are used to provide point signal.

4. **Wireless.** Wireless operations permit services, such as a long-range communications, that are impossible or impractical to implement with the use of wires.

5. **Mobile Telephones.** These wireless phones use radio waves from signal-transmission towers to enable their users to make phone calls from many locations worldwide.

6. **Wireless Data Communications.** Wireless data communications are an essential component of mobile computing. The various available technologies differ in local availability, coverage range and performance.

7. **Wi-Fi.** Wi-Fi is a wireless local area network that enables portable computing devices to connect easily to the Internet. Wi-Fi has become the de facto standard for access in private homes, within offices, and at public hotspots. Cellular data service offers coverage within a range of 10-15 miles from the nearest cell site.

8. A walkie-talkie is a hand-held, portable, two-way radio transceiver.

9. **Radio Telephony.** The procedure laid out to communicate on the Radio so as to make the conversation secure and successful, which is referred to as "Radio Telephony".

10. **Principles of Radio Telephony Procedure**.
   (a) B – Brevity.
   (b) A – Accuracy.
   (c) S – Security.
   (d) S – Speed.

11. **Types of Radio Telephony communication**.
   (a) RT conversation.
   (b) Unregistered (UR) Message.
   (c) Formal Message.

12. **Types of Calls**.
   (a) Single Call.
   (b) Multiple Call.
   (c) Net Call.
   (d) Net Call with Exceptions.

13. **Troposcatter** is a system in which micro waves are transmitted in the UHF and SHF band to achieve radio communication over the horizon covering a range between 70 Km to 1000 Km.

14. **Modem (modulator-demodulator)** is a network hardware device that modulates one or more carrier wave signals to encode digital information for transmission and demodulates signals to decode the transmitted information.

15. A satellite is an artificial object which has been intentionally placed into orbit. Such object is sometimes called artificial satellite to distinguish them from natural satellites such as Earth's Moon.

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16. Satellites are used for a large number of purposes. Common types include military and civilian earth observation satellites, communications satellites, navigation satellites, weather satellites, and research satellites.

17. Multimedia is content that uses a combination of different content forms such as text, audio, images, animation, video and interactive content. Multimedia contrasts with media that use only rudimentary computer displays such as text-only or traditional forms of printed or hand-produced material.

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