

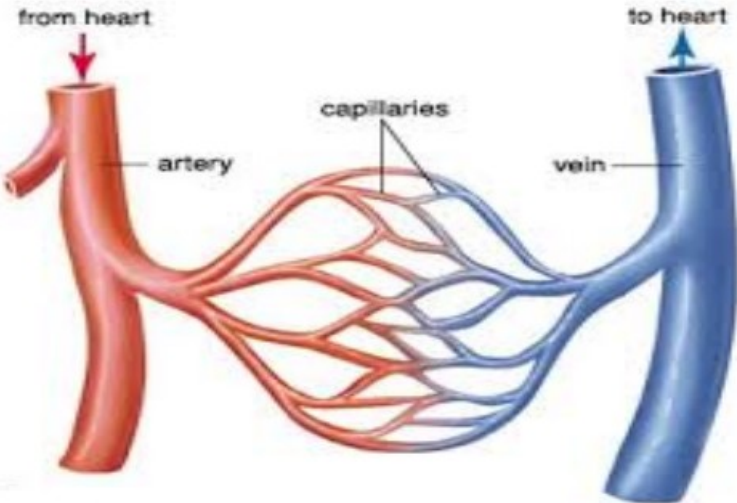
MARKING SCHEME 2020-21
Class-X
Subject: National Cadet Corps (076)

Time: 3 Hours

Max Marks: 70

Part A - Common Subject

Ques. No.	EXPECTED ANSWER	Marks Break-up
1	(i) 23rd Dec 1957 (ii) 02 October 1869 (iii) 40 gm (iv) 30 degrees (v) Foam Type extinguishers (vi) 1919 (vii) over your leg (viii) Target group (ix) Discipline (x) Creativity (xi) 12 inches (xii) 3.93 kg (xiii) 10mm	1 X 13
2	Steps of firing a Shot – For firing a perfect shot it is necessary to take correct position and holding and there should be a perfect coordination between eye sight, aiming, mind and trigger control. The following steps should be followed for firing a shot:- (a) Sahiposnikhtiyarkaren. Kudratiseedhaiko check karen. (b) Rif kobharkaren, Ready karen, sahi sight lagaenaur sahi alignment hasil karen. Dimag itaur par un angonko check karen jo rifle ko hold karne mein madad karne hain. Jaise baen hath kikohni, kalai, dahin akandha, dahine haath kipakara ur kalmewali anguli. (c) Absaansko normal chalne den aur, back sight aperture kamadhya se fore sight tip ko POA se milao. Fore sight tip 6 bajaur 12 bajeki line mein harkat kar nichahiye. (d) Trigger kapah lakhichavhaasil karne ke baad kuchh samay keliye saans koroken. Aur sight picture ko check karen. Uske baad pooradhyan fore sight tip par le jaenaur trigger dabayen to goli fire ho jaegi. (e) Goli fire ho jaane ke baad usipakar, posnaursisht kokayam rakhte hue fore sight tip ki movement ko check karen fore sight ki tip jahan point karegi usi jagah par lagegi. (f) Absaanskochhor den aur maar'kopukaren. Goli fire hone se maar pukaranetakkikarwaiko follow through ka tehain.	$\frac{1}{2} \times 6 = 3$
3	a. Armed forces are the first line of defence. b. The NCC cadets helped the administration in Distribution of Ration/Food to the needy, in Supply Chain and Data Management and guiding the public in maintaining social distancing. A sense of patriotic commitment to contribute to national development was shown by NCC cadets. c. The motto of NCC is unity and Discipline. The cadets worked together to help people and under the guidance of Officers, Junior Commissioned Officers, PI staff and ANOs in a disciplined manner	1+1+1
4	a. 3 - National Cadet Corps b. 3 - both self and community c. 2 - 20-24 years	1+1+1

5	The human body has 206 bones of various shapes and sizes. The bones give shape and firmness to the body, as also it protects the vital organs like brain, heart, lungs and spinal cord. Bones can either be loosely arranged or densely arranged. The loosely arranged bone is called “spongy bone” and densely arranged bone is called “compact bone”. Some bones are hollow from inside and filled with bone marrow. Classification of Bones. Bones can be classified according to their shape as under:- (Any 4) (a) Long Bones. These bones are long and tubular and are confirmed to upper and lower limbs. (b) Short Bones. This bones are short and tubular and are found in the ankle/.wrists (c) Flat Bones. These bones are flat like plates. e.g. Bones of cranium Skull shoulder or hips. (d) Irregular Bones. Irregular or mixed shaped. Eg. Vertebral column. (e) Sesamoid Bones. They develop in the tendons of the muscles around the joints e.g., Patella OR The circulatory system consists of the Heart, Blood Vessels and blood. Each time the heart contracts; blood is pumped along the blood vessels. By blood circulation, oxygen, nutrients and other substances are brought to the tissues and the waste products and carbon dioxide formed by the tissues are constantly removed. (1/2 mark for each label) 	1 + (½ x 4)
6	Leadership - the responsibility to gather all cadets at the given time for fall-in everyday Character building - All cadets helped each other during the trek. OR The cadets of all units were given responsibility to distribute food everyday. Secularism - The NCC song was sung at the closing ceremony. OR All cadets helped each other during the trek. Sportsmanship - various inter-directorate events of sports, cultural activities and debate were organized and prizes were given	1+1+1+1

7	a. An adventure is an exciting experience that is typically bold, sometimes risky, undertaking. Adventure aims at increasing productivity, encourages students to work in different working environments, it builds team spirit, friendship and trust amongst each other. b. Adventure activities require lots of self-discipline so as to be safe. The cadets need to listen to the instructors and follow them to learn the correct techniques of various activities. There are various situations during adventure activities where the help of others is required. In such situations, it promotes unity as the cadets help each other during the activity.	2 + 2
8	Firing Point se Phele. (a) Hathiyaar clear, magazine utrahu aur safety device lagahua. (b) Muzzle hameshasurakshit dishamein. (c) Drill cartridge kaistemal nahin. (d) Ammunition practice kemu tabik issue. (e) Harkatchalkar. (f) Chamber hameshakhali. (g) Dry exercise se pahle hathi yarkanirikshan. Firing Point Par. (a) Ammunition kisafai aur damage check. (b) Barrel surakshit disha. (c) Bharhukam se. (d) Sahikhalikar. (e) Barkhilapkarwai par fire band. (f) Rokendurkartesamaysavdhani.	2 + 2
9	Causes of Dowry System. (a) Economic Inequality. This fuels the desire to ask for more and more cash or gifts to live a lavish life style. (b) Increasing Unemployment of Males. In order to prove their status, unemployed males are growingly demanding more and more dowry to fulfill their desires. (c) Parental Compulsions. In order to find a good match for their daughter, well to do parents are offering huge dowry. (d) Divine Sanctions. The Vedas prescribe that a dowry be given by the bride's family to the groom. Effects of Dowry System. Due to dowry system there has been an increase in debts and loans, increase in domestic violence, increase in female foeticide, female trafficking and false dowry allegations. Prevention of Dowry. As a member of the society we can do a lot to prevent offenses related to dowry:- (a) Not to offer or accept any dowry. (b) Educate the members of the family with law - that accepting or giving dowry is an offence. (c) Educate the members of the family and the neighbours to respect a woman's rights and privileges. (d) Encourage women to fight for their rights. (e) Law enforcement. OR Child Abuse - (a) Child abuse is an intrinsic part of today's global attention. Every child is at risk as it does not affect only one religion, caste or creed. (b) It is generally observed that the statistics are higher, when the child is at its adolescence. Abuse can be of mental, as well as physical, or both. Definition. Child abuse constitutes all forms of physical and / or emotional ill-treatment, sexual abuse, neglect or negligent treatment or commercial or other exploitation, resulting in actual or potential harm to the child's health, survival, development or dignity. Forms of Child Abuse. Child Abuse can be of following forms:- (a) Physical Abuse. Causing physical injury upon a child. This may include hitting, shaking, kicking, beating, or otherwise harming a child physically. (b) Emotional Abuse. Emotional abuse (also known as verbal abuse, mental abuse) means, causing behavioral, emotional, or mental distress/trauma, by acts or the failure to act by others. (c) Sexual Abuse. Sexual abuse is inappropriate sexual behaviour with a child. (d) Child Neglect. Child neglect is an act of omission or commission leading to the denial of a child's basic needs. Child Abuse India. A national study on child abuse conducted in 2006 by Ministry of Child and Women Welfare found that it is 5-12 year age group children who are most at risk of abuse and exploitation. Over 50% children were subjected to physical abuse and 53.22% children reported facing sexual abuse.	2+2+2

10	a. Saluting at halt -(a) Jab word of command miltahai-ginti se salute karnasamne salute ek to is word of command par dahinebajukodahinetarafsidthauthate hue kandhekebarabarlayenaurkohni se modte hue anguliyonkosidheaurmilate hue kalmewaliangulikodahine ankh kibhaown se 1 inch uparlagaen, shouting karenek. Is position meindekhnekibaten - dahinehaathkianguliyonauranguthaseedhaaur mile hue, kalmewaliangulidahine ankh kebhow se 1 inch aur beech meinkalai se kohnitak 45 degree ke angle par, nigahsamne, baki position savdhan. (b) Jab word of command miltahai squad do to, dahinehaathkonazdikkeraste se teji se giraen, aur shout karen do'. Is position meindekhnekibaten - position savdhan. b. Wheeling - A movement by which a formed body changes direction, pivoting on the inner flank while retaining its dressing. c. About turn during march - (a) Tejchal se word of command miltahaiginti se mudnapiche mud ek, ye word of command us samaymiltahai jab baenpaondahinepaonko cross karraha ho yadahinepaonkiaedizameen par lag rahi ho tohbaenpaonkokhaalijane den, dahinepaonko 15 inch age lagate hi chalthalalmeirukjaen, shout karenkhaaliek'. (b) Dahinepaonkiaaedi par 90 degree dahinetarafghoomjayenaurbaenpaonkodahinepaonkesaathsavdhanpostionmeinlagaen, shout karen do'.(c) Jab word of command miltahai squad teen to, is word of command par baenpaonkepanje par dahinetaraf 90 degree par aurgoomjayen, saath hi dahinepaonko 6 inch utharkarsavdhan position meinlagaenaur shout karen teen. (d) Jab word of command miltahai squad char to, postionaur direction kodurustkarnekeliyebaenpaonko 6 inch uparuthate hue dahinepaonkesaathsavdhanpostionmeinlagaen. (e) Jab word of command miltahai squad panch to, dahinepaonko 30 inch age nikalkartejchalkikaryawahishurukarenaur shout karenbadho'. Squad panchbadhothamkahoek-do. OR Words of Command - Eksahi word of command nirbharkartahaiawazki -tone aur pitch pe. Durust word of command - clear aurunchiawaz - meindiyajatahai, takiuskaturantamalkiyajaye. Ek ache word of command dene keliyenimnlikhitbatenzarurihai:- (a) Loudness (Swar). Word of command ki loudness is baatpenirbharkartahaikiword of command kitne logon kodiyyarahahaiyaunkidurikitnihai. Word of command dene keliye, commander apneaapko squad kisamne, bichon bichunkitarafmuhkarkekhaada ho kardiyyajatahai. Word of command hamesha – savdhan position men diyajatahai. (b) Clarity (Safai). Jeeb (Tongue), lips aurdantonkasahitalmelkesath clear word of commanddiyajae. Sust word of command squad men tezinahipaidakarega. (c) Pitch. Durust word of command keliyesahi pitch kahonazarurihai. (d) Timing. Word of command kisahi timing usketurantamalkeliyebahut hi zarurihai. Ek word of command ke do bhaghotenhai cautionary aur executive. Cautionary aur executive kebich char (four) tezkadamkafaslahonachahiye. Tezchal men, cautionary word of command, baen pair se shuruhotahai. Words of Command. The following words of command are used in drill - (ByankesathNamuna):- (a) SavdhanaurVishram. (b) Dahine Mud yaBaen Mud. (c) Piche Mud ya Age Mud. (d) DahineDekhayaBaenDekh. (e) TezChalyaDhireChalaurTham. (f) Khuli Line ChalyaNikat Line Chal. (g) Line Ban, SajjayaVisarjan. (h) Dahine Salute, Baen Salute yaSamne Salute.	2 + 2 + 2
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Part B - Army

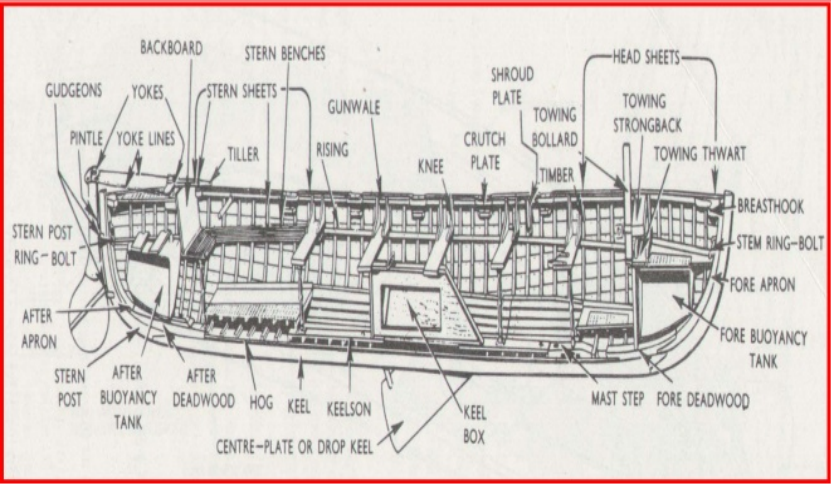
QUES. NO.	EXPECTED ANSWER	MARKS BREAK-UP
11	(c) Gen Sam Manekshaw	1
12	(b) Difference Between True North and Grid North	1
13	Defile - Any feature whether natural or artificial which could cause a body of troops to contract its front. An example of a natural defile is mountain pass while bridge is an example of an artificial defile. Crest - A highest part of hill or mountain range. It is that line on the range of hills or mountains from which the ground slopes down in the opposite direction.	1+1
14	Communication is the easy transmission of thoughts and ideas from one individual to another and vice-a-versa and reception and understanding of others ideas in the original form. There are 2 types of Communication (a) Line communication b) Radio Communication (c) Wireless Technology - Mobile, Wi-fi, Walkie Talkie	1+1
15	A map represents selected natural and manmade features of the whole or part of the earth's surface on a sheet of paper. Types - Political, Geographical, Economical, Historical and Military Maps	1+1
16	In 1998, India carried out nuclear tests and a few days later, Pakistan responded by more nuclear tests giving both countries nuclear deterrence capability, although India had exploded three hydrogen bombs which Pakistan lacks. Diplomatic tension ceased after the Lahore Summit was held in 1999. The sense of optimism was short-lived, however, since mid-1999 Pakistani paramilitary forces and Kashmiri insurgents captured deserted, but strategic, Himalayan heights in the Kargil district of India. These had been vacated by the Indian army during the onset of the inhospitable winter and were supposed to reoccupy in spring. Once the scale of the Pakistani incursion was realised, the Indian Army quickly mobilized about 200,000 troops and Operation Vijay was launched. Battle of Tololing - The Battle of Tololing, was one of the pivotal battles in the kargil war between Indian Armed forces and troops from Northern Light Infantry who were aided by other Pakistan irregulars in 1999. Tololing is a dominating feature overlooking Srinagar-Leh (NH1D) and was vital link. The terrain was such that frontal attacks had to be launched which resulted in heavy casualties. The three week assault finally culminated with India taking control of the peak and changing the course of the war. 23 Indian soldiers were killed in the final assault, resulting in one of the costliest battle of the entire war. Other assaults, slowly tilted the combat in India's favour. Never the less, some of the posts put up stiff resistance, including Tiger Hill (Point5140) that fell only later in the war. The Indian Army mounted some direct frontal ground assaults which were slow and took a heavy toll given the steep ascent that had to be made on	3

	peaks as high as 18,000 feet (5,500m). Two months into the conflict, Indian troops had slowly retaken most of the ridges they had lost; according to official count, an estimated 75%–80% of the intruded area and nearly all high ground was back under Indian control. On 4 July 1999, Pakistan's Prime Minister Sharif agreed to withdraw Pakistani troops under US pressure and the fighting came to a gradual halt, but some Pakistani forces remained in positions on the Indian side of the LOC. The Indian Army launched its final attacks in the last week of July; as soon as the Drass sub sector had been cleared of Pakistani forces, the fighting ceased on 26 July. 26 July has since been marked as 'Kargil Vijay Diwas' (Kargil Victory Day) in India. By the end of the war, India had resumed control of all territory south and east of the Line of Control, as was established in July 1972 as per the Shimla Accord.	
17	The protractor is made of cardboard or ivories (flexible material) and it measures 6 inches long and 2 inches wide. Protractors and angle gages measure the angle between two surfaces of a part or assembly. A protractor uses units called degrees to measure angles. A protractor can measure angles starting from the left or from the right. It measures from 0 to 180 degrees. The Service Protractor helps in finding the own position on the Map and also the distance with the help of map.	1+1+1
18	Signals with hand Deploy - Right arm fully extended above head and waved from side to side, palm open. Advance - Right arm swung from rear to front in "under arm blowing" fashion. Signals with weapon Enemy in sight - Rifle held above the head parallel to the small number muzzle in the direction of the enemy. Advance - Both arms raised to form the letter U Signals with whistle Cautionary Blast - A short blast to draw attention to a signal or order about to be given. The Alarm blast - A succession of alternate long and short whistle blasts.	1+1+1
19	Types of Bearing - 1. Grid Bearing 2. True Bearing 3. Magnetic Bearing To Convert a Magnetic Bearing to a Grid Bearing. Suppose the bearing of a certain point P is measured with a compass and is found to be 1600. To convert this Magnetic Bearing to a True Bearing, follow under mentioned steps:- (a) First find out the Magnetic Variation of the Area. Magnetic Variation is given on the Top Right corner of each Map. (b) Suppose 50 is the Magnetic Variation of the area. Now subtract this Magnetic Variation to the Magnetic Bearing. (c) The resultant is the Grid Bearing i.e. 1550 To Convert Grid Bearing to Magnetic Bearing. (a) Measure the Grid Bearing of an object on the map with help of the service protractor from your own position. (b) Suppose the Grid Bearing of the object is 1500.	2+2

	(c) Now, find out the Magnetic Variation of the area with the help of Map (Magnetic Variation is given on the Top right corner of the map). Suppose Magnetic Variation of the area is 60. (d) Now, add this Magnetic Variation to the Grid Bearing. (e) The resultant will be the Magnetic Bearing of the object i.e. 1560. OR a.  b.  c.  d. _____ _____	
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Part B - Navy

QUES. NO.	EXPECTED ANSWER	MARKS BREAK-UP
11	b. G- Require a pilot	1
12	c. Semaphore	1
13	The various types of the sailors branch are as follows (any four): 1. AA (Artificer Apprentice) 2. DE (Direct Entry Diploma holders) 3. SSR (Senior Secondary Recruit) 4. MR (Matric Recruit) 5. NMR (Non Matric Recruit)	$\frac{1}{2} \times 4 = 2$

	6. Sport Entries	
14	Flag semaphore is the telegraphy system conveying information at a distance by means of vis6 signals with hand held flags, rods disk, paddles or occasionally bare or gloved hands. -Information is encoded by the position of the flags. -It is read when the flag is in a fixed position.	1+1
15	Shackle-Rigging shackles are coupling links used for joining ropes, webbing chains together or to some fitting usually forged from carbon-magnesium steel. Types of Shackle (any two) 1 Screw shackles 2 Clenched shackles 3 Forelock shackles 4 Joining shackles	1+1
16	Labelled diagram of whaler  Parts of whaler- Apron, B backboard, Benches, Bottom board, Bow, Rudder mast step & clamp, pillars, thwarts stem, stern, etc.	1+2
17	Chart scales- Charts are generally published in three different scales These are. 1. Small scale chart- These are charts covering a very vast area and the information such as sounding light etc not given in details. 2. Medium scale chart- These charts are used for passage, the information for navigation including dangers are clearly shown on these charts 3. Large Scale chart- These charts are generally of harbours and their approaches. These charts contain all information required for precise navigation.	1+1+1

18	GPS- GPS is one of the most important modern navigation aids. This helps us to locate our position to the accuracy of a few hundred meters. All sea going vessels are supposed to have GPS fitted on board for navigation. Modern navies even use GPS for accurate launching of ballistic and continental missiles. We also do plotting to cross check the position given to us by GPS for errors.	3
19	Any 4 1. Ship your oars:- This is the order to place the oars in the crutches and ready for pulling 2. Give way together:- This is the order to start pulling and it is obeyed together by the whole crew. 3. Oars:- This is an order to cease pulling. 4. Back together:-This is the order to back water together by pushing on the looms of the oars instead of oars. 5. Hold water:- This is the order to reduce or stop the way of the boat by holding the oars at right angles. 6. Stroke together:- This is the order for all to give one stroke together. 7. Easy all:- This is the order to pull less vigorously so that the speed of the boat will be reduced. 8. Eyes in the boat:- This is an order to the crew to keep gaze from wondering aboard and to pay attention to their duties.	1X4

Part B - Air Force

QUES. NO.	EXPECTED ANSWER	MARKS BREAK-UP
11.	(a) Helicopter The envelope of air surrounding the earth and extending to great heights is the atmosphere where physical processes occur, giving rise to the ever changing weather phenomena.	1
12.	(c) 15 degrees celsius	1
13.	Choppers - Mi-8 and the Mi-17 Fighter - MiG-21s and Mirage 2000	$\frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2}$
14.	(a) Boundary of the mesosphere - Mesopause (b) boundary of the troposphere - Tropopause (c) Two Types of control line models in aeromodelling -Control Line Aerobatic Model and Control Line Speed Model.	$1 + 1 + \frac{1}{2} + \frac{1}{2}$
15.	Relief features - Mountains, hills, coast lines and other natural features are of considerable interest to a pilot as they are valuable landmarks for navigation purposes or sometimes pose dangerous barriers for flight. Relief is indicated on maps and charts in one or more of five different ways:- a) Spot heights or depths. b) Contours and form lines. c) Layer tints.	3

	d) Hachures. e) Hill shading.	
16.	The four basic elements required in a map are: (a) Areas will be shown correctly. (b) Bearing measurement anywhere on the reduced earth will be identical to the measurement on the earth. (c) Shapes will be correct. (d) Distances will be measured accurately by use of a graduated scale which is provided at the bottom of each map. The distances are given in (i) Kilometers (ii) Nautical miles. (iii) Statute miles.	3
17.	There are various methods used to identify the aircraft:- (Any 3) a) Wing position. 1. High wing. 2. Low mid wing. 3. Shoulder wing. 4. Low wing. 5. Mid wing. 6. Parasol wing. (b) Shape of canopy- 1. Inline. 2. Submerged. 3. Teardrop. 4. Glasshouse. 5. Bubble. (c) Wing shape. (d) Shape of fins and tail plane(s) Shape of wing tips. (f) Markings - Saffron White Green	1+1+1
18.	Aeromodelling is the activity involving design, development and flying of small air vehicles. It is a very exciting and interesting way to learn, apply and understand science and engineering principles. The following are the different type of Aero models:- (a) Static Models. These are the miniature replicas of original aircrafts. The following aircrafts can be prepared as static models. (i) Fighter aircraft models. (ii) Transport aircraft models. (iii) Helicopter models. (b) Gliders. These are the different types of gliders:- (i) Chuck Glider. (ii) Catapult Glider. (iii) Towline Glider. (iv) Free flight Glider. (c) Control Line Models. The following are the different types of Control Line model:- (i) Control Line Aerobatic Model. (ii) Control Line Speed Model. (d) Radio control Models. The following are the different types of Control	1 + 2

	Line model:- (i) Radio Control Power. (ii) Radio Control Glider. (iii) Radio control Helicopter. (iv) Jet Powered Model.	
19.	Darkness had just fallen on the evening of 3rd December 1971 when air raid alert was sounded at 6 PM in most of the cities in India. With the sounding of siren all lights went off. The cities were plunged into darkness. The AIR then revealed the unfortunate incident of unprovoked aggression by Pakistan. The Pakistani Air Force and ground troops following the Israeli type pre-emptive strike had launched a massive attack on the Western front stretching from Jammu & Kashmir to Rajasthan. In addition to air raids by the Pakistani Air Force the ground forces also launched a massive attack on our border posts. Air Defence Guns and Knats went blazing and ensured 03 of Pakistanis Sabre jets were shot down. Gnats and MiG-21s, demonstrated the superiority of IAF pilots. The MiG-21 was highly effective in short range, precision attacks which was amply demonstrated while carrying out attacks against key command centers in the capital Dacca itself. It was in the Western theatre that the MiG-21 was employed in its primary task, that of air defence, escort and interception. Deployed at all the major air bases, the MiG-21FLs mounted hundreds of combat air patrol sorties over Vital Points (VP) and Vital Areas (VA), flew escort missions for bombers and were continuously scrambled to intercept hostile intruders. Flying Officer Nirmaljit Singh Sekhon, flying Gnat with No 18 Squadron from Srinagar, was posthumously awarded the ParamVir Chakra. OR Operation 'SafedSagar' was the code name assigned to the Indian Air Force's strike to support the Ground troops during Operation Vijay that was aimed to flush out Regular and Irregular troops of the Pakistani Army from Indian Positions in the Kargil sector along the Line of Control. It was the first large scale use of air power in the Jammu and Kashmir region since the Indo-Pakistan War of 1971. Initial infiltrations were noticed in Kargil in early May, 1999. The Indian Air Force (IAF) was first approached to provide air support on 11 May. On 21 May a Canberra on a reconnaissance mission was hit by ground fire. The flight returned to base on one engine. On 25 May, the Cabinet Committee on Security authorized the IAF to mount attacks on the infiltrators without crossing the LoC. On 26 May, the go-ahead was given and the IAF started its strike role tasks. Flying from the Indian airfields of Srinagar, Avantipur and Adampur, ground attack aircraft MiG-21s, MiG-23s, MiG-27s, Jaguars and the Mirage 2000 struck insurgent positions. The first strikes were launched on the 26 May, when the Indian Air Force struck infiltrator positions with fighter aircraft and helicopter gunships. The initial strikes saw MiG-27s carrying out offensive sorties, with MiG-21s and (later) MiG-29s providing fighter cover. Mi-17 gunships were also deployed in the Tololing sector. On 30 May, the Indian Air Force called into operation the Mirage 2000 which was deemed the best aircraft capable of optimum performance under the conditions of high altitude in the zone of conflict. Armed with Laser Guided Bombs (LGB) the Mirages repeatedly struck enemy positions, destroying Logistics and resupply capability of the infiltrators.	4

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