

MARKING SCHEME 2023-24

National Cadet Corps (076)

CLASS XII 2023-24

One Theory Paper – 3 hours

Total Marks – 70

1.	SECTION A	
i)	a.	1
ii)	b.	1
iii)	c.	1
iv)	d.	1
v)	b.	1
vi)	b.	1
vii)	d.	1
viii)	c.	1
ix)	d.	1
x)	a.	1
xi)	c.	1
	SECTION B	
2.	Body movements, gestures, facial expressions, hand movements, looking happy, Eye movements etc. (Any Four)	2
3.	• Fire extinguishers. • Stirrup pumps. • Buckets. • Fire beaters and hooks. (Only name) (OR) • Conduction • Convection	2

	• Radiation • Direct Burning	
4.	International Red Cross and Red Crescent Movement are the world's largest group of humanitarian NGOs.	2
5.	• Antiseptic (A/S) lotion. • Cotton / gauze piece. • A pair of Scissors. • Bandages of different size and band aid plaster. • A/S ointment or powder.	2
6.	The collection, transport, processing or disposal, management and monitoring of waste materials is essential to reduce their impact on health, environment or aesthetics. (OR) Hazardous wastes contain heavy metals, cyanides, pesticides, complex aromatic compounds (such as PCBs), and other chemicals which are toxic, reactive, corrosive or have a serious damaging effect on the environment	2
7.	• Immediately wash the bite area with lots of water and soap. • The wound should be cleaned with available antiseptic. • The patient should be sent to hospital for an anti-rabies injection course. • Dog and the patient should be kept under observation for at least 10 days.	2
8.	• static drill • Ceremonial drill • Squadron drill (OR) Drill inculcates a sense of discipline, improves bearing, smartness in appearance and turn out, creates self-confidence, develop the quality of immediate and implicit obedience to orders and teamwork.	2
9.	'Visarjan (Dismiss): The cadet should turn to the right, salute (if an officer/JCO is present on parade) pause and then step off (ensure squad is in close order).When marching independently, the cadet keeps in step until clear off the parade ground. On command 'Line tor' (Fall out) the squad should turn right, break off in quick time (or in double time as ordered) counting a regulation pause between each movement.	4

	The difference between dismiss and falling out are as follows:- a) Falling out • To leave the ranks temporarily • A word of command, to close the drill temporarily is given to a body of cadets required to fall in again after a stipulated period • Salute is given b) Dismiss • A word of command is given for closing drill. • Denotes parade is completely terminated. • Salute not given	
10.	• Accuracy is not sacrificed for speed. • There is no verbal declaration of aim, since this would cause distraction. • The butt remains in the shoulder in order to save time in re-aiming. • Perfect bolt manipulation is ensured so that no time is wasted in reloading. • Firing continues until such time as the command „stop“ is given, or no further fire is required. (Any four) (OR) The laws of aiming are: • Focusing on the target so that a clear picture is formed on the retina of the eye and getting true centre of the target. Then with the eye, focus to the foresight. • Holding the rifle properly and keeping it upright. • Close the left eye and focus the foresight. • See the foresight through the black sight „U“. The foresight is seen right in the centre of the U. The tip of the foresight must be aligned in the centre and in level with the shoulder of the U.	4
11.	• Licensing: Make sure you parasail with a fully licensed (state and local) company operating from a well-established location insured by a licensed insurance company. Don't pay for your ride on the boat. This operator may not have a license or be insured. • Established Operators: Only parasail with established business operators. Ask how long they have been in business, if there business permits are current with the city and if the operator on-board is a licensed Captain. • High Winds: Avoid parasailing in high wind conditions (over 15 knots at sea level) due to an increased difficulty and	4

	complications during emergency water landings. • Visibility: Never go up in rain, fog or an approaching storm. • Passenger Age and Weight Restrictions: Parasailing is not recommended for individuals under the age of 16 or exceed 300 lbs. • Types of Equipment: Make certain that you get adequate safety briefing prior to your flight. This safety briefing should include, a) a description of the activity itself, b) safety procedures in the event of an unexpected emergencies, c) the proper use of signals, while landing fire or capsizing e) precluding any participant who appears to be afraid or intimidated prior to his/her aerial excursion. • Altitude: Parasailing at an altitude of more than 600 feet is discouraged, especially in close proximity to the shoreline or other objects. The recommended altitude for using hand signals and recovery during water landings over Open Ocean is 600, and 300 feet over small lakes bays or sounds (figures based on ideal wind and sea conditions with limited traffic). • Ask Questions: Ask all the right questions: How long have you been in business? Do you have Insurance by a licensed agent in this state? Is it a good flying weather today? • Release Form: Read the release form carefully before you sign it. Parasailing does have physical requirements, especially in the event of a water landing. (Any Four)	
12.	Every nation, with whatever form of government, has certain political, social and economic interests and objectives to achieve overall development, prosperity, progress, nationalism and international recognition. To attain such objectives, certain national interests are pre-requisites (a) Sovereignty (b) Integrity (c) Unity (d) Security (OR) NCC creates awareness among youth about the diverse heritage of our country and fosters national integration, despite linguistic, cultural, religious and geographical barriers. It helps cadets gain experience, to live together, co-operate and work in harmony with cadets of other states and strengthens unity through the following means: • Ethics and Social Values • Cultural and Traditional Values • Discipline and Patriotism	4
	SECTION C	
13.	• B. Left	2

	• C. Guard Commander	
14.	• Telephone/Mobile Phone: We should learn to control the telephone, or it will control us. We must regard telephone as a business tool, not a social one. We should practice having a quick, to the point conversations. • Visitors: Visitors should be met outside. When faced with the question: „Have you got a minute? “, if there is no time, we should respond with a polite „no“, and then tell them when they can see us. • Paper: The best guideline for paperwork is to either file it or throw it away. We never use 80% of the paperwork we keep. Computer printers produce over two and a half million pieces of paper every minute throughout the world. • Lack of Planning: The best way to avoid a crises is to anticipate them. Common reasons are a lack of planning, unrealistic time frames, and reluctance by subordinates to break bad news. • Socializing: As far as possible, one must avoid extended tea-breaks, regular social lunch-hours, and chat in the corridors. • Indecision: This is caused by ignorance, fear, or lack of confidence in the facts. • Television: Can be a huge time-waster. • Procrastination: Procrastination can best be defined as putting off the doing of something that should be done – instantly and habitually.	6
	(ARMY WING)	
	SECTION D	
15.	(i) C) 16&1/ 2to 19& 1/ 2years (ii) D) Opposite (iii) B) 5.56mm INSAS (iv) C) 2, 7, 142 (v) A) Both A and R are true and R is the correct explanation of A.	5
	SECTION E	
16.	Ashoka chakra, Kirti chakra, Shourya chakra (OR) Age: 19 and 25 Years as 01 Jan of the year in which course is due to commence for Oct Course. 01 Jul of the year in which course is due to commence for Apr Course. Educational Qualification: Final Year appearing/Graduate with 50% Aggregate marks, 2 year service in NCC	2

	Senior Div (Army) with minimum B Grade in C Certificate Exam.	
17.	• Portable and light in weight. • Operated easily • Can select required zone • Option of selected call facility (Any four)	2
18.	Cardinal points: North, South, East and West are known as the cardinal points. If the North point is taken as 0 Degrees the angle which East forms with it is 90 degrees, or a right angle. The angle formed by the South point, being twice as large, is 180 degrees, and the West point forms an angle of 270 degrees. If the angle is measured all the way round the circle back again to North, it will be found to be 360 degrees. In addition to four main directions there are 8 minor directions which are as follows:	2
19.	• First find out the Magnetic Variation of the Area. Magnetic Variation is given on the Top Right corner of each Map. • Suppose 50 is the Magnetic Variation of the area. Now subtract this Magnetic Variation to the Magnetic Bearing. • The resultant is the Grid Bearing i.e. 1550. (OR) The service protractor "A" Mark IV is an instrument used for plotting and measuring bearing on the map. It is an essential link between the compass and the map. With the help of the protractor the magnetic bearings have been converted to grid bearing and transferred to the map.	2
20.	A. It is not always possible to give verbal orders through words of mouth because of battle noise, security reasons and intervening distance being too great for effective voice control. B. • The light is bright or the sun is shining from behind the observer. • The object is large in relation to its surrounding. • There is some dead ground between observer and the object. • Looking uphill. (OR) • Use of Disruptive Pattern Clothing and Local Vegetation. • Camouflage of Face. • Camouflage of Equipment. (i) Helmet. (ii) Camouflage of Packs.	4

	(iii) Camouflage of Rifle. (iv) Camouflage of LMG. (v) Camouflage of Equipment (All with correct explanation)	
	SECTION F	
21.	• B) 1942 • C) 1946 • D) Leadership • D) Major General	4
	(NAVY WING)	
	SECTION D	
15.	• A) Watches • D) Undersea Warfare • B) Knot • C) Anchor • A) Both A & R are true and R is the correct explanation of A.	5
	SECTION E	
16.	Any 4: • Tap Hammer • Nose Plier • Cutting Plier • L Square • Junior Hacksaw • Pin car • Jack Plane • Bench Vice	2
17.	Damage and flooding in a ship can occur due to collision, grounding, weapon explosion, enemy attack etc. (OR) This is in the immediate vicinity of the cause of damage explosion, collision grounding and, particularly in the case of explosion will be the zone of complete destruction. That part of the primary zone below the waterline will probably be completely loaded and nothing can be done	2

	except to try to contain the flood water within its original boundary.	
18.	Types of Compass: • Magnetic compass. It is a magnet freely suspended in a horizontal plane which settles with one end pointing approximately to the true north. The reading obtained does not give us the true north due to various external factors such as earth's magnetism and ships magnetic property. The north direction obtained is called the Compass North. • Gyro Compass. This instrument is a rapidly spinning wheel or gyroscope, the axis of which is made to point along the meridian towards true north. Courses and bearings, which are measured using a gyrocompass, are true provided there is no error in the compass. It is measured clockwise from 000 to 360.	2
19.	Sailing rules are commonly known as "rules of the road". There are three common rules applicable to a sailing vessel:- Rule 1: A sail boat running free must keep clear of one close hauled. Rule 2: A sail boat close hauled on the port tack must keep clear of a sailboat close hauled on the starboard tack. Rule 3: When both boats are running free on opposite tacks the vessel with the wind on the port side must keep clear. Rule 4: When both boats are running free on the same tack the boat to windward must keep clear (OR) The parts of sail are as follows • Head: Upper side of lug sail • Foot: Lower side of any sail • Luff: The forward edge of sail • Leach: The after edge of a sail • Peak: After upper corner of a lug sail • Tack: Lower fwd corner of a sail • Clew: Lower after corner of a sail • Throat: Forward upper corner of a sail	2
20.	Indian Navy has the following branches:- • Executive branch • Logistics branch • Engineering branch • Education branch • Electrical branch • Medical branch	4

EXECUTIVE DEPARTMENT The primary function of this department is to keep the ship in top fighting efficiency. Maintenance of ship's discipline is also the responsibility of this department. The executive department is headed by an officer from the executive branch and he is called Executive Officer. On big ship's he is also known as Ship's Commander. He is also called Second in Command, and in the absence of the Commanding Officer, he is in charge of the ship.

This department is further divided into following 06 sub branches:-
Gunnery, Communication, ASW, Regulating,

ENGINEERING DEPARTMENT Navigation NBCD The primary responsibility of this department is to maintain the propulsion system of the ship and provide propulsion power to the ship as directed by the Commanding Officer. It is also provides assistance to ships NBCD in countering the damage. The HOD of this department is called Engineer Officer (EO).

ELECTRICAL DEPARTMENT The ship needs electrical supply for domestic purpose i.e cooking, fans, AC, lighting and for operating weapon systems and sensors. This department is responsible for electrical power generation and electrical power supply to the ship borne weapon systems and sensors. The HOD of this department is called the Electrical Officer (LO).

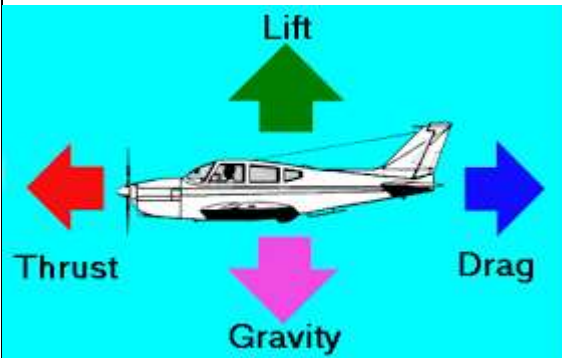
LOGISTICS DEPARTMENT. The logistics department is responsible to feed the ships company, provide them clothes, looks after their Pay and Allowances, provides spares and stores to Engineering, Electrical and Executive department for effecting repairs/replacement. The HOD of this department is called Logistics Officer (LOGO).

OTHER DEPARTMENTS Medical Department The primary responsibility of this department is to look after the health of the ships company. A qualified Medical Officer (MO) is posted onboard a ship for this purpose. 7. Education Branch. This department consists of officers of Education Branch, Civilians Instructors and a few sailors. These instructors look after class room instruction and examination of academic subjects. They also look after extracurricular activities, take classes for ETI and HET exams and conduct examinations for sailor. This department is headed by Senior Education Officer (SEDO). 8. Flight .Some ships have air element like helicopter on board. Such ships have a separate department called ships Flight. This department is headed by a Flight Commander from the Aviation Branch. 9. Diving. Certain ships have complements of divers to undertake emergency diving operation both at harbour and sea to meet unforeseen requirements.

Conclusion: The branches of the Navy are for efficient running of departments when the Officers and Sailors of a particular branch are specially trained to discharge multifarious jobs that they are called upon to perform during their service career.

(OR)

	Missile Boat Attack: The first missile boat attack on Karachi, launched from Saurashtra (Okha) along the coast, was a success. It sank a Pakistani destroyer and a coastal minesweeper. The Indian Fleet planned its next attack for night 8/9 December. To divert attention from missile attack on Karachi, they had also planned a diversionary attack on Jiwani (Makran Coast). The bombardment group, under the Cruiser Mysore, apprehended Pakistani Merchant Ship 'Madhumati' south of Jiwani after she had transmitted an SOS to Karachi. After Madhumati was boarded Commander called off gun bombardment of Jiwani as SOS was good enough distraction for the missile boats to go through the attack on Karachi. Once again this second strike was also successful. A missile set Karachi fuel storage tanks aflame and another hit Dhaka, the Pakistani Navy's tanker, at the anchorage. These two missile attack on Karachi achieved Western Fleet dominance of sea approaches to Karachi.	
	SECTION F	
21.	• B) 14 years • B) 2 • B) No • C) Union Public service commission	4
	(AIR WING)	
	SECTION D	
15.	• B) Golf • B) Identification of an aircraft • C) Kiran • C) 1971 • A) Both A and R are true and R is not the correct explanation of A	5
	SECTION E	
16.	The four basic elements required in a map are: • Areas will be shown correctly. • Bearing measurement anywhere on the reduced earth will be identical to the measurement on the earth. • Shapes will be correct. • 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. Kilometres	2

	ii. Nautical miles iii. Statute miles	
17.	The various Air Traffic Service Units are: • Approach Control Office: A unit established to provide air traffic control service to controlled flights arriving at or departing from, one or more aerodromes. • Aerodrome Control Tower: A unit established to provide air traffic control service to aerodrome traffic. (OR) Objectives of Air Traffic Services: • To prevent collision between aircraft. • To prevent collision between aircraft on the manoeuvring area and obstructions on that area. • To expedite and maintain an orderly flow of traffic. • To provide advice and information useful for the safe and efficient conduct of flights. • To notify appropriate organisations regarding aircraft in need of search and rescue aid and assist such organisation as required.	2
18.	 (OR) Bernoulli's principle states that for an inviscid flow, an increase in the speed of the fluid occurs simultaneously with a decrease in pressure or a decrease in the fluid's potential energy.	2
19.	Following are the different Branches in the IAF • Flying Branch • Navigation Branch • Education Branch • Medical Branch • Administration Branch • Logistic Branch	2

	• Meteorology Branch • Engineering Branch	
20	Construction plans are provided normally with all model kits. These should be studied thoroughly. Then follow the shaping of various parts using sandpaper and sand blocks as shown in the blue print. After which the whole plan is fixed on the drawing board. Then the individual parts are placed on the blue print and it is to be ensured, it is proper as per the blue print. Parts are then assembled together as per the dimensions provided in the blue print. Dope is applied with brush but only in thin coats two to three times. Sand the excess dope using a fine emery paper. Apply a coat of surface using a brush or spray gun and make sure it has covered all the wooden area. After the surface is dried up check for dents and apply putty or metal paste to cover the dents. After it dries up using a wet emery paper, sand the model to get a clean surface till it is suitable for painting. 'Etch rivet marking' as shown in the blue print. Spray a thin layer of base coat and paint the model as per the required colour scheme. Add details, undercarriage, wheels, drop tanks etc. & apply lacquer or polish if required. (OR) First, the whole plan is fixed on to the drawing board. Then the individual parts are fixed on it with the help of pins parts are then glued together with cement. After drying, the various components are assembled together with correct alignment. Sand papers of various grades are used for smoothening out of edges and curves. Patience and meticulous operation is needed at this point. Assemble the bell crank assembly with the lead outs carefully. Model is then covered with sliver foil, monocot or tissue paper. Dope may be applied with brush, in thin coats two to three times. Before engine installation, ensure that the engine compartment is properly treated with paint work. While installing the engine, extreme care is needed to be taken to ensure that the thrust line of the propeller is in line with the fuselage. Out of line thrust will result in the model going hay wire and crashing. Engines are mounted either by projection made of hard wood beams or on screws against the plywood.	4
	SECTION F	
21	• D) Drawing • A) True • A) 2-3 • B) Construction plan	4