

Class: XII
National Corps Cadet (076)
Marking Scheme 2018-19

Time allowed: 3 Hours

Maximum Marks: 70

	PART – I COMMON SUBJECT (Total Questions- 18 and Maximum Marks 49)	M.M. 49
1.	In 1909.	1mk/U1/Pg no 5
2.	16 articles of the Constitution deals with the Directive Principles of the State Policy.	1mk/U1/Pg no 10
3.	100 is the strength of Guard of Honour for the Vice-President and Prime Minister.	1mk/U2/Pg no 33
4.	Try some of these techniques if a visitor overstays their time: i) At the finish of business, stand up. ii) Let the visitor see you looking at your watch. iii) Do not make eye contact with the chatty person. Keep your head down and continue working. (Any two of these)	2mk/U4/Pg no 86
5.	i. Use of chemical fertilizers & pesticides containing harmful substances. ii. Due to excessive cultivation or if same crop is grown repeatedly on the same plot the soil becomes deficient in nutrients.	2mk/U9/Pg no 203
6.	i. Subhash Chandra Bose ii. Japan iii. He urged Indians to join him in his freedom movement	3mk/U1/ Pg no 8
7.	i. 5.56mm ii. Gas Operation iii. 150 rds/min	3mk/U3/ Pg no 60-61
8.	The platoon has two prescribed formations: line and column. When a platoon forms in a line, its squads are numbered from front to rear.	3(2+1)mk/ U2/Pg no 34
9.	The following three elements are essential for creation of fire and its continuation - (a) Oxygen. (b) Sufficient heat to raise the temperature of fuel to its burning point or ignition. (c) Combustible or burnable material (solid, liquid or gas).	3mk/U5/ Pg no 112
10.	(a) Accuracy is not sacrificed for speed. (b) There is no verbal declaration of aim, since this would cause distraction. (c) The butt remains in the shoulder in order to save time in re-aiming. (d) Perfect bolt manipulation is ensured so that no time is wasted in reloading (e) Firing continues until such time as the command 'stop' is given, or no further fire is required.	4mk/U3/ Pg no 58

	(Any four of these)	
11.	<p>Depressants: Depressants are drugs that slow down the function of the central nervous system. Depressant drugs do not necessarily make a person feel depressed.</p> <p>i) Alcohol. (ii) Cannabis. (iii) Barbiturates, including seconal, tuinal and amytal. (iv) Benzodiazepines (Tranquilisers), Benzos, Tranx, such as Rohypnol, Valium, Serepax, Mogadon, Normison and Eupynos. (v) GHB (Gamma-hydroxybutrate), or Fantasy. (vi) Opiates and opioids, including heroin.</p> <p>(Any 3 of these)</p>	4mk/U6/ Pg no 133-134
12.	<p>Treatment</p> <p>(a) Keep the patient warm and lying down with feet raised up and head kept low. (b) Apply cold application on the suspected injured region. (c) Cheer up the patient. (d) Arrange medical attention as soon as possible.</p>	4mk/U7/ Pg no 164
13.	<p>Posting and Relieving Sentries:</p> <p>i. The guard commander marches the sentry upto the post & the new sentry places himself on to left of the old sentry and faces the road, without the word of command.</p> <p>ii. The guard commander will face the road without any word of command & the guard commander places him/herself three paces in front of the sentries.</p> <p>iii. The guard commander then read and explain all orders pertaining to the post of new sentry and will then order transfer of ammunition (not normally held by NCC cadets).</p> <p>iv. He/She will then give the word of command 'Sentries Badli Karo' & the old sentry will take two steps to the front and the new sentry two steps to his/her right.</p> <p>v. The new sentry from now on assumes the post & the guard commander then gives the command 'Old - Sentry Tez Chal' and marches with him/her into the guard room.</p> <p>vi. The sentry on duty, does shoulder arm & he/she halts at the appointed place, faces the road and properly stands at ease.</p>	6mk/U2/ Pg no 31
14.	Internal negative aspects that are under our control and that we can plan to improve: (a) Lack of work experience. (b) Low marks, wrong major. (c) Lack of goals, lack of self-knowledge and lack of specific job knowledge.(d) Weak technical knowledge. (e) Weak skills (leadership, interpersonal, communication, teamwork). (f) Weak job-hunting skills.	6mk/U4/ Pg no 69-70
15.	(i) Arm Bar, Elbow Bar: Jamming an arm into a crack and locking it into place.	6mk/U8/ Pg no 183

	<p>(ii) Bridging or Stemming: Climbing a corner with the legs apart, one against each face, with the feet relying on friction or very small holds.</p> <p>Campus using Campus arms. The word itself is derived from the power training done on a set of campus boards.</p> <p>(iv) Chest Jam: Jamming the torso into a wide crack, for resting.</p> <p>(v) Chimneying Climbing between opposing rock faces, with the back and hands against one face, and the feet against the other face, or alternating between both.</p> <p>(vi) Crimp or Crimping Grabbing on to a hold with the fingertips alone.</p> <p>(Any other relevant time)</p>	
	Special Subjects-Army	M.M.21
16.	The invention of telephone by Graham Bell revolutionized the world of communications.	1mk/U6/Pg no 192
17.	The purpose of Grid Lines is to make possible giving and reading Grid References and to facilitate measurement of bearings.	1mk/U2/Pg no
18.	i. Atlas maps ii. Relief maps iii. Topographical maps iv. Rail/road maps (Any other type)	2mk/U2/Pg no 51-52
19.	i) Dry river beds ii) telegraph office iii) church iv) international boundary Refer to the online material on NCC website	2mk/U2/Pg no 53-55
20.	Advantages (a) Can transmit graphics as well as Alphanumeric information (letters and numbers). (b) Reduce time and eliminates transmission error. (c) Use any transmission medium eg. Telephone, line, micro radio wave.	2mk/U6/Pg no
21.	i) Central Command ii) Southern Command iii) Army Training Command i. Lucknow ii. Pune iii. Shimla	3mk/U1/Pg no 3-4
22.	i. Indian Ordnance Factory Board. ii. It is being used by the Indian army. 150 rds/min	3mk/U4/Pg no 37-38
23.	Param Vir Chakra is the India's highest Military decoration awarded for highest degree of valour or sacrifice in the presence of enemy. i. Sarvottam Yudh Seva Medal	3mk/U5/Pg no 44, 46 & 47

	Param Vishisht Seva Medal	
24.	<p>The basic considerations for fire & movement are as under:-</p> <p>(a) <u>No movement on exposed ground without covering fire.</u> The advantages of covering fire are obvious, but this does not mean that fire will be brought down continuously when you are moving. Whenever you have ground providing you cover, you must use it. Whenever you have to move in open, fire must be brought down on the en in small bursts to keep his head down.</p> <p>(b) <u>Control by the Commander.</u> The sec can remain a viable force only when it is under the control of its commander. Otherwise, it is likely that the required fire support will not be brought down at the required place & time. In a section, control is ex by voice command & hand signals. As a rule, sec commander must keep his section within range of voice or visible control.</p> <p>(c) The angle of covering fire from direct firing weapons should be as wide as possible w/o loss of control or time. It is to ensure that own troops are not coming under effective fire of own fire sp. It also ensures that the fire support is provided till as late as possible so that assault troops are able to close in with the en.</p> <p>(d) <u>Full use of Available Cover.</u> Full use should be made of cover provided by the ground. Various types of cover have already been taught to the cadets.</p> <p>(e) <u>Optimum use of all Available Weapons.</u> All available weapons should be used for producing covering fire.</p>	4mk/U3/Pg no 131
	Special Subject-Navy	M.M. 21
16.	The technique of floating keeps you surviving till help and assistance reaches you.	1mk/U9/Pg no189
17.	<p>Anchor and cable are used to hold a ships position in water. The cable is designed to act as a spring with the anchor holding it secured to the bottom of the sea.</p> <p>The size and type of Anchors and cables depend on the tonnage and type of ship.</p>	2mk/U5/Pg no 118
18.	<p>(a) Ensure the boat is clear of water</p> <p>(b) Adequate number of oars & crutches along with spare</p> <p>(c) Life jacket for all the crew</p> <p>(d) Check the boat plug</p> <p>First aid kit (Any two of these)</p>	2mk/U6/Pg no 133

19.	Searchers must operate in pairs because (a) A partner boosts morale (b) In case of trouble, searchers can help each other. (c) Better effort available for clearing obstructions. (d) Easy transportation of casualties. (Any two of these)	2mk/U7/Pg. no.149
20.	Ship Modeling is a creative activity wherein the cadets are taught to make models of boats, yachts and various ships of the Indian and international navies. It makes a cadet observant, cool headed and applies scientific knowledge to excel in this discipline.	2mk/U8/ Pg.no. 158
21.	Naval Headquarters. It is located at New Delhi. The Chief of the Naval Staff (CNS) controls the functioning of the Navy from NHQ.	3mk/U1/Pg no 9
22.	i. Panoramic Sonar. In this, ripple beams are formed to search the 360 deg arc around the platform. ii. The Convergence zone Sonar. These Sonars use the convergent zones which may exist in certain waters to enhance the detection range.	3mk/U2/Pg no 60
23.	Duties of Various Communication Sub-departments. Further communication department is divided into three sub departments viz. Tactical, Radio and Special. The responsibility of each of three sub departments is given below:- (a) Tactical Fleet work, Visual Signalling, cryptography (offline) and traffic handling. (b) Radio Radio telegraphy, automatic telegraphy, radio telephony, (c) cryptography (online) and traffic handling. Special Electronic warfare and traffic handling.	3mks/U3/Pg no 84
24.	(a) Number of chart (b) Title of the chart (c) Survey data (d) A source data diagram (e) Date of publication (f) New edition (g) Date of printing (h) Chart dimension (j) Scale of the chart (k) Abbreviations & symbol (l) Heights (m) Drying heights (Any 6 of these)	3mks/U4/Pg no 105

	Special Subjects -Air Force	M.M.21
16.	A.M. Engineer	1mks/U1/Pg no.13 para 12
17.	Soviet Union	1mks/U2/Pg no.42 para 8
18.	The World Meteorological Organization	1mks/U7/Pg no.164 para7
19.	i. Primary controls ii. Secondary controls	1mks(½mkeach)/U9/ Pg no.200 Para 2
20.	i. Mid wing ii. Shoulder wing Refer to the book on the given page number	2mks/U3/Pg no.47
21.	(a) Airmanship helps to inculcate the sense of discipline amongst pilots and other crew members. (b) It helps the pilot to know the standard procedures laid down for the airfield on which he is operating. (c) It helps the pilot to know procedure to be followed in emergency situation. (d) Finally, airmanship when studied in correct sense promotes flight safety and prevents aircraft accidents. (e) Good airmanship ensures a pilot at his best, when the situation is at its worst. (Any two of these)	2mks/U5/Pg no.107/ Para 3
22.	Operating Phases. There are basically five operating phases for any Aero-engine. They are as follows:- (a) Induction (b) Compression (c) Combustion (d) Expansion (e) Exhaust (any two of these)	2mks/U8/Pg no.184/para 7
23.	The atmosphere has weight and this weight exerts pressure. This is known as static pressure. An aneroid barometer is used to measure the atmospheric pressure.	2mks/U4/Pg no.219/para 10&11
24.	i. Energy: Unit - Joule (J) - Mass has energy if it has the ability to do work. The amount of energy a body possesses is measured by the amount of work it can do. The unit of energy will therefore be the same as those of work, joules.	3mks/U4/Pg no.78-79/ Para 6

	<p>ii. Moment of a force is the turning effect of the force about a point and is measured as the product of the force and the perpendicular distance between the point and the line of action of the force.</p> <p>iii . Acceleration is the rate of change of velocity. The change</p>	
25.	<p>Air Navigation is the art of guiding an aircraft through the air, so that it arrives at a desired position at a pre-calculated time.</p> <p>Air Navigation differs from surface navigation in several ways</p> <p>i. such as the aircraft travels at relatively high speeds, leaving less time to calculate their position enroute.</p> <p>Aircraft also normally cannot stop in mid-air to ascertain their position at will.</p>	3mks/U6/Pg no.149/ para 3
26.	<p>i. The whole plan is fixed on to the drawing board.</p> <p>ii. Then the individual parts are fixed on it with the help of pins parts are then glued together with cement.</p> <p>iii. 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.</p> <p>iv. Model is then covered with silver foil, monokote or tissue paper. Dope may be applied with brush, in thin coats two to three times.</p> <p>(Any three of these)</p>	3mks/U11/Pg no243/ Para7