

**Q.1 A) Fill I in the blanks:**

1. General Salute
2. 2 parts
3. 7 groups
4. Left leg
5. 7 steps
6. Tol Shastra
7. 45 degrees
8. Nirmala Sitharaman
9. Associate NCC Officer
10. 5 parts

**Q.1 B) State True or False:**

1. True
2. True
3. False
4. False
5. False
6. False
7. True
8. True
9. True
10. False

**Ans 2 a) Benefits of joining NCC:**

- It helps to take up career in Armed Forces.
- Entries into Indian Army, Navy, Air Force as an Officer
- Personality Development
- Leadership

There are various incentives offered by the central government

- NCC uniform.
- DMS.
- Various camps which develops cadet's skills.
- It also provides the SAHARA scholarship which help student in their educational development.
- They provides some job opportunities in defense services as well as in civil life.
- They arrange various camps which include ATC, RDC, TSC, Trekking camps, NIC and Firing camps too without acquiring any cost.

**Ans 2 b) The importance of National Integration is:**

National Integration is a process that demands a continued presence of bonds of emotional unity.

- National Integration leads to the development of Nation.
- Other countries will respect and honour to our country.
- Communalism, Linguism & Regionalism will be avoided.

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**MODEL ANSWER PAPER**

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- Ancient culture is ended for which casteism, regionalism, linguism come on focus.
- Terrorism will not spread.
- Country will be top in the world.

**OR**

Ans 2 a) Freedom Struggle and National Movement in India:

1600- East India Company was established

1857- First war of Independence

1906- Formation of Muslim League in India

1919- Government of India Act passed

1920- Non-Coperation Movement

1927-28 Visit of Simon Commission

1929-1930- Resolution of Purna Swaraj for India

1942- Quit India Movement

Ans 2 b) Various religions of India are:

1. Hindu
2. Sikh
3. Islam
4. Parsi
5. Jain
6. Buddha
7. Christianity

Ans 3) a) Importance of drill

- Steadiness
- Smartness
- Co-ordination
- Continuity
- Sharp & Active

Ans 3) b) Types of adventure activities in NCC are:

- Trekking
- Rock climbing

- Mountaineering expedition
- Para jumping
- Basic and advance mountaineering courses
- Water skiing, sailing, kayaking, yatching
- Hang gliding
- White water rafting
- Para sailing
- Glider and Microlight flying
- Cycle/motor cycle expedition
- Rowing/Rafting expedition

**OR**

Ans 3) a) Safety measures taken during cycling:

- Qualified Supervision
- Physical Fitness.
- Helmets and Clothing
- Buddy System

Ans 3) b) **Natural resources** are resources that exist without actions of humankind.

Different types of natural resources are:

- Renewable Resources
- Non-renewable resources
- Potential resources
- Actual resources
- Reserve Resources.
- Stock Resources.

Rainwater harvesting means capturing the runoff of the rainwater in our own house, village, town or city.

- It basically means accumulation and storage of rainwater for reuse, before it reaches the aquifer.
- Advantages
  - i) Ground Catchment Systems
  - ii) Roof Catchments System

- iii) Subsurface Duke
- iv) Groundwater Recharge

Ans 4 a) The various styles of leadership.

- Autocratic Leadership. Autocratic leadership style is centered on the boss.
- Democratic Leadership.
- Strategic Leadership Style.
- Transformational Leadership.
- Team Leadership.
- Cross-Cultural Leadership.
- Facilitative Leadership.
- Laissez-faire Leadership.

Ans 4) b) Skills used in our day-to-day life are:

- Reading
- Observation
- Conversation and Discussion
- Training camps
- Shouldering Responsibility
- Creating good atmosphere
- Identification and understanding others

**OR**

Ans 4) a) The qualities of good leadership are:

- Alertness
- Bearing
- Courage
- Justice
- Loyalty
- Self-confidence
- Maturity
- Endurance
- Patience
- Truthfulness
- Knowledge

Ans 5) 1) **ARMY**

Organisation of Infantry Battalion:

- 21 Officers
- 33 JCOs
- 765 Other ranks
- 32 Non combatant Enrolled (NCE)
- 1 Medical
- 1 JCO (AEC)
- 2 Nursing Assistant
- 2 AEC Havildar
- 4 Armourer
- 4 mechanics
- 1 electrician

In an Infantry battalion there is Battalion Headquarter, Headquarter Company and four Rifle Companies.

Ans 5) 2) Characteristics of wireless technologies.

- Unmatched mobility
- Unmatched elasticity
- It's convenient and can be use everywhere
- More faster
- More secure

Ans 5) 3) NCC Song

- Hum Sab Bhartiya Hain, Hum Sab Bhartiya Hain.  
Apni Manzil Ek Hai, Ha, Ha, Ha, Ek Hai, Ho, Ho, Ek Hai  
Hum Sab Bhartiya Hain  
Kashmir Ki Dharti Rani Hai,  
Sartaj Himalaya Hai,  
Sadiyon Se Hamne Isko Apne Khoon Se Pala Hai  
Desh Ki Raksha Ki Khatir, Hum Shamshir Utha Lenge,  
Hum Shamshir Utha Lenga.  
Bikhare-Bikhare Tarey Hain Hum Lekin Jhilmil Ek Hai  
Ha, Ha, Ha, Ek Hain  
Hum Sab Bhartiya Hain,  
Mandir Gurdware Bhi Hain Yahan  
Aur Masjid Bhi Hai Yahan,

Girja Ka Hai Ghadiyal Kahin  
Mullah Ki Kahin Hai Ajaan.  
Ek Hi Apna Ram Hai, Ek Hi Allah Taala Hai,  
Ek Hi Allah Taala Hai, Rang Birange Deepak Hai Hum,  
Lekin Jagmag Ek Hai Ha, Ha, Ek Hai, Ho Ho, Ho, Ek Hai.  
Hum Sab Bhartiya Hain, Hum Sab Bhartiya Hain.

Ans 5) 5) The religions in India are:

- Hindu
- Muslim
- Sikh
- Isai
- Parsi
- Jain
- Buddha
- Christianity

Ans 5) 1) **NAVY**

Organization of Navy.

- The Chief of the Naval Staff (CNS) exercises operational and administrative control of the Indian Navy from Integrated Headquarters of MOD(Navy). He is assisted by the Vice Chief of the Naval Staff (VCNS) and three other Principal Staff Officers, namely the Deputy Chief of the Naval Staff (DCNS), the Chief of Personnel (COP) and the Chief of Material (COM).
- The Navy has the following three commands, each under the control of a Flag Officer Commanding-in-Chief:-
  - The Western Naval Command (Headquarters at Mumbai).
  - The Eastern Naval Command (Head quarters at Visakhapatnam)
  - The Southern Naval Command (Headquarters at Kochi)
- The Western and the Eastern Naval Command are operational commands and exercise control over operations in the Arabian Sea and the Bay of Bengal respectively. The Southern Command is designed as the Training Command.

Ans 5) 2) **Ranks of Officers in Indian Navy:**

- Admiral of the fleet
- Admiral
- Vice Admiral
- Rear Admiral

- Commodore
- Captain
- Commander
- Lieutenant Commander
- Lieutenant
- Sub- Lieutenant

**Ranks of sailors in Indian Navy:**

Master Chief Petty Officer 1st Class  
Master Chief Petty Officer 2nd Class  
Chief Petty Officer  
Petty Officer  
Leading Rate  
Seaman 1st Class  
Seaman 2nd Class

Ans 5)4) **AIR**

Types of warships:

- Aircraft Carriers (two) Kiev class (Modified)INS Vikramaditya (R33) ...
- Amphibious warfare ships.
- Destroyers (9) Kolkata class (Stealth guided missile destroyer)INS Kolkata (D63) ...
- Frigates (15) ...
- Corvettes (25) ...
- Mine countermeasure vessels (6) ...
- Patrol vessels (53) ...
- Auxiliary Fleet

Ans 5) 2) Principals of Flight.

- **Aerofoil:** A body designed to produce more lift than drag. A typical aerofoil section is cambered on top surface and is more or less straight at bottom.
- **Chord line:** It is a line joining the centres of curvature of leading and trailing edges of an aerofoil section.
- **Chord length:** It is the length of chord line intercepted between the leading and trailing edges.
- **Angle of attack:** It is the angle between the chord line and the relative air flow undisturbed by the presence of aerofoil.
- **Angle of incidence:** The angle between the chord line and the longitudinal axis of the aircraft.

- **Total Reaction:** It is one single force representing all the pressures (force per unit area) over the surface of the aerofoil. It acts through the centre of pressure which is situated on the chord line.
- **Lift:** The vertical component of Total Reaction, resolved at right angles to the relative airflow.
- **Drag:** The horizontal component of the Total Reaction acting angles and in the same direction as the relative airflow.

Ans 5) 5) Importance of Swimming.

Swimming is a great workout because you need to move your whole body against the resistance of the water. **Swimming** is a good all-round activity because it: keeps your heart rate up but takes some of the impact stress off your body.

- being a relaxing and peaceful form of exercise
- alleviating stress
- improving coordination, balance and posture
- improving flexibility

Ans 5 ) 4) Circuit Procedure.

- The **upwind side** is the area on the opposite side of the landing runway from the downwind leg. Approach should be made into this area at or above circuit height.
- The **circuit joining crosswind** is a corridor, lying within the airspace between the centre of the landing runway and its upwind end, linking the upwind side and the downwind leg.
- The **downwind leg** is a flight path, opposite to the direction of landing, which is parallel to and at a sufficient distance from the landing runway to permit a standard rate –one turn to the base leg.
- The **base leg** is a flight path at right angles to the direction of landing and sufficiently downwind of the approach end of the landing run-way to permit at least a ¼ mile final approach leg after completion of a standard rate –one turn to final approach.
- The **final approach leg** is a flight path in the direction of landing, commencing at least ¼ mile from the runway threshold, wherein an airplane is in line with the landing runway and descending towards the runway threshold.



Ans 5) 5) Aviation Medicine.

Every Cadets Know about aero medical aspects in aviation, lack of oxygen effects/hypoxia, fatigue and decompression sickness.

➤ **HYPOXIA**

Hypoxia comes on without warning of any kind, supplementary oxygen must be available in any aircraft that will be flown above 10,000 Feet. The general rule of oxygen above 10000 ASL by day and above 5000 ASL by night is one the wise pilot will practice to avoid hazard of these deliberating conditions. Hypoxia can be defined as a lack of sufficient oxygen in the body cells or tissues.

➤ **HYPERVENTILATION**

Hyperventilation, or over breathing, is an increase in respiration that upsets the natural balance of oxygen and carbon dioxide in the system, usually as a result of emotional tension or anxiety.

EAR BLOCK : If air is trapped in the middle ear, the eardrum stretches to absorb the higher pressure. The result is pain and some time temporary deafness. Eardrum rupture is even possible. To prevent it Some times it is advisable to use the Valsava technique, that is, to close the mouth, hold the nose and blow gently.

➤ **FLYING FATIGUE**

Fatigue is one of the most common psychological problems for air crew members and will adversely affect individuals who are otherwise in good health.