

PART-I: COMMON SUBJECTS (Total Marks: 49)

SECTION-A

Q.1 Choose the correct option: (11x1=11 marks)

(i) (c) To reach out to the maximum youth through various institutions

(ii) (d) New Delhi

(iii) b) 12th January

(iv) (d) Volcano

(v) (a) Both A & R are true and R is the correct explanation of A.

(vi) (b) 1, 2, 3

(vii) (a) 30 degrees

(viii) (d) Daud ke Chal

(ix) (a) Both A & R are true but R is not the correct explanation of A.

(x) (b) 1 and 2

(xi) (d) 15 July, 2015

SECTION-B

Ans-2: 100 seats per year at OTA for Men and 10% for Women

Or

Ans.: 06 seats per course in Navy & 10% vacancies in all courses in Air Force

Ans-3: Maintenance of Peace and Harmony, Growth and Development of the Nation, Law and Order, Culture and Religious Development, Dignity and Self-Respect, Welfare and Well-being of the People (Any 4)

Or

Ans.: Cultural aspects, political motives, lack of education, communalism, casteism, regionalism, linguistic fanaticism.

Ans-4: 06 RH, 05 rounds

Or

Ans.: 25 yards, 2700' per second

Ans-5: (1) Common cleaning or Aam Safai: daily cleaning, weekly cleaning and quarterly cleaning;
(2) Cleaning during Firing; (3) Cleaning after Firing

Ans-6: Extreme desire to have a male child, unwanted pregnancy, dowry system, poor medical ethics, inferior status of women in society etc. (Any 4)

Ans-7: Look somewhere else, interrupts communication, constantly look at the watch, gets up to do something and returns, gives advice, talks to someone else, answers the phone, begins to do some work, does not stop doing work, says that he/she will be back in a minute and does not return, looks bored etc. (Any 4)

Ans-8: Aadhar, Digital India, BHIM App, Make in India, Start-up India etc. (Any 4)

Ans-9: Headquarters services, Warden's services, Firefighting services, casualty services, communication services, rescue services, welfare services, depot and transport services, salvage services, corpse disposal service, supply service, repair and demolition parties (Any 4 with description)

Or

Ans-9: Natural Disasters: Wind Related, Water Related, Earth Related
Man-made Disasters: Accident, Fire, Industrial Mishaps, Poisoning, Contamination, Terrorist Activities, Warfare, Ecological etc.

Ans-10: *“Dahine Mur”(Right Turn): Both knees are turned straight, a turn of 90 degrees is taken right on the right heel and left toe, raising the right toe and left heel; in doing so weight of the body is kept on the right foot. The left foot is brought into the right by lifting the foot 6 inches clear of the ground. In all turns, the weight of the body is kept on the forward foot.*

“Piche Mur” (About Turn): A turn of 180 degrees is taken, bracing the legs and maintaining the balance by locking the thighs together. The About Turn is always made right about.

Or

Ans-10: Drill is defined as being instructed in military exercises involving marching, saluting and turning. There are different types of drill including static drill, ceremonial drill and squadron drill. The features of a command in drill are loudness, distinctness, inflection and snap (briefly explained)

Ans-11: (1) Study weather forecast; (2) Always carry a raincoat or wind cheater; (3) Always carry comfortable and spacious rucksack; (4) Must carry all the required equipments and essential things; (5) Keep toilet items handy; (6) Carry all possible essentials; (7) Carry sleeping mattress for night halts; (8) Carry adequate woolen clothes; (9) Take off shoes during drink and lunch halts; (10) Take small steps when ascending up slope; (11) Consume plenty of water; (12) Carry essential medicines etc. (Any 4 with explanation)

Ans-12: Past Experiences, Dreams and Ambitions, Self-Image, Values etc. (With Explanation)

SECTION-C (Case Based)

Ans.-13 (a) Surrounding

(b) Biotic and abiotic

(c) Environment

Ans: 14 (a) The state of physical well-being is known as health.

(b) World Health Organization

(c) False

(d) Hygiene and sanitation

(e) Its study is aimed at making the cadets aware of the many preventable health hazards and to enable them to look after themselves and their community most efficiently.

PART-II: SPECIAL SUBJECTS (ARMY WING) {Total Marks: 21}

SECTION-D

Q.15 Choose

(i) (c) Honorary

(ii) (b) East North East

(iii) (b) Map

(iv) (d) 1000 Yards

(v) (b) Both A & R are true but R is not the correct explanation of A.

SECTION-E

Ans 16: Gallantry awards are divided into two categories

a) Gallantry award in the face of an enemy

b) Gallantry award other than in the face of enemy

OR

Ans 16: Age: 16 and $\frac{1}{2}$ to 19 and $\frac{1}{2}$ years

Qualification: 10+2 pass

Ans 17: Conventional signs are symbols used to represent certain artificial or natural features/ objects on the map.

Ans 18: There are three types of bearings

a) Grid Bearings

b) Magnetic Bearings

c) True Bearings

Ans 19: 1. Vulnerable to physical interference

2. Takes time to construct

3. Inflexible once it is laid.

4. Expensive (Any two)

Ans 20: 1. Pre decided signals on a walkie talkie

2. Click by fingers

3. Click by using tongue

4. Whistle by mouth

5. Use of rope

6. Use of color light
7. Use of blacked out torch
8. Firing of weapon

SECTION-F

Ans 21: Q.1: D) 1969

Q.2: B) For the service of nation

Q.3: C) Captain

Q.4: B) Amritsar

PART-II: SPECIAL SUBJECTS (NAVY) {Total Marks: 21}

15.

(i) d) All of the above

(ii) a) Bend

(iii) a) Both Assertion and Reason are true, and Reason is the correct explanation of Assertion.

(iv) b) Lap Joint

(v) a) A single arrow denotes course steered, water track, leeway vector.

16. An anchor temporarily holds a ship to the seabed, particularly in shallow waters. The cable, designed to act as a spring, is secured to the anchor and plays a crucial role in anchoring the ship securely to the bottom of the sea, preventing it from drifting away.

17 Semaphore serves as a crucial visual communication method, allowing messages to be swiftly exchanged over short distances, particularly in daylight conditions.

Or

Ans- The Error Sign plays a crucial role in semaphore communication by indicating the occurrence of an error or mistake in the transmitted message.

18.The GPS provides accurate positioning information, ensuring safe and efficient navigation for sea-going vessels.

19. An Aircraft Carrier serves as a floating airfield capable of launching and recovering aircraft and helicopters, extending the reach and capability of naval aviation.

20. Static models in ship modeling competitions are evaluated based on several criteria that reflect the accuracy, craftsmanship, and attention to detail of the model. Firstly, proximity to the drawing ensures that the model closely resembles the design specifications provided. Model dimension to scale ensures that the proportions of the model accurately represent the real-life dimensions of the ship being modeled. Fittings, such as rigging, deck details, and superstructure elements, are examined for their precision and intricacy, adding to the overall realism of the model. Elegance considers the aesthetic appeal and overall presentation of the model, including the quality of paintwork, finishing, and overall visual impact. These criteria collectively contribute to determining the quality and authenticity of the static model, reflecting the modeler's skill and dedication.

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1.Testing the ship model during construction allows for adjustments to be made to the position of components, which can be difficult to alter once the construction is complete. This ensures that any necessary modifications can be implemented more easily, reducing the likelihood of major rework later on.

2. Ship modeling offers the advantage that almost anything will float, and with sufficient power, it can be propelled through the water, providing satisfaction to the casual model maker.

3. It is recommended to test the ship model during construction, typically after the initial two or three coats of paint and before the permanent attachment of the deck and superstructure.

4- Marking the waterline and checking the hull's floating alignment helps ensure that the model floats true and maintains the correct trim. This step allows model makers to assess whether any adjustments or additional ballast are required to achieve the ship model's desired floating position and stability.

SECTION-D

Q.15

- i) Answer: C) 2500 km/hr
- ii) Answer: B) Mirage-2000
Answer: C) Deep Penetration Strike Aircraft
- iii) Answer: (a)Both assertion and reason are true, and reason is the correct explanation of assertion.
- iv) Answer: (b) atmosphere

SECTION-E

Q.16. Air navigation is guiding an aircraft through the air. It involves determining and maintaining the aircraft's position, course, and altitude to ensure safe and efficient flight from one point to another. This process utilizes various instruments, charts, and navigational techniques.

Q.17.**Ans:** Fighter aircraft are often distinguished by their sleek, aerodynamic design, high manoeuvrability, visible armaments, and aggressive stance. Additionally, they may feature distinct tail configurations and radar signatures.

Q.18. **Ans:** Aeromodelling is the hobby or recreational activity of designing, building, and flying miniature aircraft models. These models can range from simple, hand-launched gliders to sophisticated, radio-controlled aeroplanes or helicopters, replicating actual aircraft designs on a smaller scale.

OR

Ans: Aeromodelling involves designing aircraft structures, selecting appropriate materials, understanding aerodynamics for flight stability, and mastering flight control techniques. It combines craftsmanship, engineering principles, and piloting skills to effectively create and operate model aircraft.

Q. 19. Mukti Fauj and Mukti Bahini were resistance forces in the Bangladesh Liberation War of 1971. Mukti Fauj, composed primarily of Bengali military personnel, fought against the Pakistani military occupation in East Pakistan. Mukti Bahini, a guerrilla force comprised civilians and fighters resisting Pakistani rule, contributed significantly to Bangladesh's independence.

OR

Ans: The Indo-Pak War of 1971 was a conflict between India and Pakistan, primarily over the liberation of East Pakistan (now Bangladesh). Sparked by political unrest and atrocities in East Pakistan, India intervened in support of Bengali nationalists. The war ended with Pakistan's defeat, resulting in the creation of Bangladesh.

Q. 20. The major aviation weather hazards include thunderstorms, turbulence, icing, and low visibility. Thunderstorms pose risks of lightning strikes, severe turbulence, and strong winds. Turbulence, caused by atmospheric instability or terrain, can disrupt flight stability and passenger comfort. Icing affects aircraft performance and control surfaces, reducing lift and increased drag. Low visibility due to fog, haze, or precipitation impairs pilots' ability to navigate safely, requiring reliance on instruments for guidance.

Q. 21.

- i) Answer: b) Kargil War of 1999
- ii) Answer: c) Securing the Kargil region from enemy infiltration
- iii) Answer: a) Dense fog and high winds
- iv) Answer: c) By neutralizing enemy positions and securing strategic locations