



# EFENCE & SECUR

Deligjed

Explanation

(January 2021 — March 2022)

Answers

Explanation

Answers

Explanation

Answers

Drishti IAS, 641, Mukherjee Nagar, **Opp. Signature View Apartment, New Delhi** 

Answers

Drishti IAS, 21 Pusa Road, Karol Bagh New Delhi - 05

Drishti IAS, Tashkent Marg, Civil Lines, Prayagraj, **Uttar Pradesh** 

Drishti IAS, Tonk Road, Vasundhra Colony, Jaipur, Rajasthan

e-mail: englishsupport@groupdrishti.com, Website: www.drishtiias.com Contact: 011430665089, 7669806814, 8010440440

#### Exp:

- It is an intergovernmental military alliance (six countries) that came into effect in 2002.
- It is an intergovernmental military alliance that was signed on 15<sup>th</sup> May 1992.
- In 1992, six post-Soviet states belonging to the Commonwealth of Independent States—Russia, Armenia, Kazakhstan, Kyrgyzstan, Tajikistan, and Uzbekistan—signed the Collective Security Treaty. Hence, statement 1 is correct.
- This is also referred to as the "Tashkent Pact" or "Tashkent Treaty". Hence, statement 2 is correct.

#### 2. Ans: A

#### Exp:

- INS Viraat (decommissioned): INS Vikrant was followed by the Centaur-class carrier HMS (Her Majesty's Ship) Hermes from the UK, which was rechristened in India as INS Viraat and served in the Indian Navy from 1987 to 2016. Hence, Pair 1 is correctly matched.
- INS Vikramaditya: It is the Indian Navy's largest aircraft carrier and warship converted from the Russian Navy's decommissioned Admiral Gorshkov/ Baku.
  - INS Vikramaditya is a modified Kiev-class aircraft carrier that was commissioned into service in November 2013. Hence, Pair 2 is correctly matched.
- INS Vikrant (decommissioned): Beginning with INS Vikrant which served India from 1961 to 1997.
  - India acquired the Vikrant from the United Kingdom in 1961, and the carrier played a stellar role in the 1971 war with Pakistan that led to the birth of Bangladesh.
  - ♦ In 2014, INS Vikrant, was broken down in Mumbai. Hence, Pair 3 is not correctly matched.

# 3. Ans: A

#### Exp:

#### Missile Technology Control Regime (MTCR):

 It is an informal and voluntary partnership among 35 countries to prevent the proliferation of missile and unmanned aerial vehicle technology capable of carrying greater than 500 kg payload for more than 300 km.

- The members are thus prohibited from supplying such missiles and UAV systems that are controlled by the MTCR to non-members. Hence, statement 1 is correct.
- The decisions are taken by consensus of all the members.
- This is a non-treaty association of member countries with certain guidelines about the information sharing, national control laws and export policies for missile systems and a rule-based regulation mechanism to limit the transfer of such critical technologies of these missile systems. Hence, statement 3 is not correct.
- It was established in April 1987 by G-7 countries –
   USA, UK, France, Germany, Canada, Italy, and Japan.
   Hence, statement 2 is correct.
- It is not a legally-binding treaty. Hence, no punitive measures could be taken against non-compliance to the guidelines of the regime.
- India was inducted into the Missile Technology Control Regime in 2016 as the 35th member.
  - ◆ India can procure high-end missile technology and run joint programmes for development of unmanned aerial vehicles with other countries. eg. Procurement of theater missile interceptor "Arrow II" from Israel, military drones like "Avenger" from the USA etc.

#### 4. Ans: D

- Exercise TSENTR 2019: Exercise TSENTR 2019 is part of the annual series of large scale exercises that form part of the Russian Armed Forces' annual training cycle.
  - The series rotates through the four main Russian operational strategic commands i.e Vostok (East), Zapad (West), TSENTR (Centre) and Kavkas (South).
  - ◆ The 2019 exercise was conducted by the Central Military Commission of Russia.
  - ◆ The exercise is planned between 9<sup>th</sup> September to 23<sup>rd</sup> September 2019 at Donguz training ranges, Orenburg, Russia.
  - Apart from host Russia, military contingents from China, India, Kazakhstan, Kyrgyzstan, Tajikistan, Pakistan and Uzbekistan will also take part in this mega event.



- Indra Exercises: It is a joint, tri services exercise between India and Russia.
  - ◆ The INDRA series of exercises began in 2003. It was conducted as a single service exercise alternately between the two countries. However, the first joint Tri Services Exercise was conducted in 2017.
- ZAPAD 2021: It was a multinational military exercise. It is one of the theatre level exercises of the Russian **Armed Forces** and will focus primarily on operations against terrorists.
  - ♦ Nine are Participating countries which include Mongolia, Armenia, Kazakhstan, Taiikistan, Kyrgyzstan, Serbia, Russia, India and Belarus.
  - ◆ Eight countries are Observers which include Pakistan, China, Vietnam, Malaysia, Bangladesh, Myanmar, Uzbekistan and Sri Lanka.
- Nomadic Elephant: It is an India-Mongolia joint military exercise. It is aimed at training troops in counter insurgency & counter terrorism operations under United Nations mandate.
- Hence option D is correct.

#### Exp:

#### **Indian Coast Guard:**

- It is an Armed Force, Search and Rescue and Maritime Law Enforcement agency under the Ministry of Defense.
- It is headquartered in New Delhi.
- The concept of forming ICG came into being after the 1971 war.
- The blueprint for a multidimensional Coast Guard was conceived by the visionary Rustamji Committee.
- For effective command and control, the Maritime Zones of India are divided into five Coast Guard Regions, namely, North-West, West, East, North-East and Andaman & Nicobar, with the respective Regional Headquarters located at Gandhinagar, Mumbai, Chennai, Kolkata and Port Blair.
- Hence option C is correct.

# 6. Ans: D

# Exp:

• The **development** of the Pinaka multi-barrel rocket systems was started by the DRDO in the late 1980s, as an alternative to the Multi Barrel Rocket Launcher systems of Russian make called the 'Grad', which are still used by some regiments. Hence, statement 1 is not correct.

- The Pinaka, a Multi-Barrel Rocket-Launcher (MBRL) system named after Shiva's bow, can fire a salvo of 12 rockets over a period of 44 seconds.
- The existing Pinaka system, which is already in the Army, has a range of up to **35-37km. Hence, statement** 2 is not correct.

#### 7. Ans: A

#### Exp:

- Agni class of missiles are the mainstay of India's nuclear launch capability, which also includes the Prithvi shortrange ballistic missiles, submarine launched ballistic missiles and fighter aircraft.
  - Agni and Prithvi are India's only two nuclear missiles, but beyond those, tactical nuclear weapons can be fired from some Indian Air Force fighter jets or from Army guns, which have a low range, around 50 km.
- Brahmos is one of the fastest cruise missiles currently operationally deployed with speed of Mach 2.8, which is 3 times more than the speed of sound.
  - ◆ It is a joint venture between the Defence Research and Development Organisation of India (DRDO) and the NPOM of Russia.
  - India does not call BrahMos nuclear.
- Rudram-1 is an air-to-surface missile, designed and developed by the DRDO. It is the first indigenous antiradiation missile of the country.
- Hence, option A is correct.

# 8. Ans: C

# Exp:

Ballistic Missile	Cruise Missile
<b>Travel in projectile motion</b> and trajectory depends on gravity, air resistance and Coriolis Force.	Comparatively follows a straight trajectory of motion.
Leave the earth's atmosphere and re enter it. <b>Hence, statement 2 is not correct.</b>	The flight path is within the earth's atmosphere.
Long-range missiles (300 km to 12,000 km). Hence, statement 1 is correct.	Short range missiles (range upto 1000 km)
E.g. Prithvi I, Prithvi II, Agni I, Agni II and Dhanush missiles. <b>Hence, statement 3 is correct.</b>	E.g. BrahMos missiles

9. Answer: C

#### Exp:

#### About

• Pralay' is India's first conventional quasi-ballistic missile and is an answer to any conventional missile attack from northern or western borders.



- ◆ A quasi-ballistic missile has a low trajectory, and while it is largely ballistic, it can manoeuvre in flight. Hence, statement 1 is correct.
- The missile has a range of 150-500 kilometres and can be launched from a mobile launcher.
  - Pralay will be the longest-range surface-tosurface missile in the inventory of the Army.
- It is powered by a solid-propellant rocket motor and many new technologies. Hence, statement 2 is correct.
- The missile guidance system includes a **state-of-theart navigation system** and integrated **avionics**.

#### 10. Ans: B

#### Exp:

- Project 75 is a programme by the Indian Navy that entails building six Scorpene Class attack submarines.
   Hence, statement 1 is not correct.
  - ◆ The design of the Kalvari class of submarines is based on the French Scorpene class of submarines. Hence, statement 2 is correct.
- It is given support by the Department of Defence Production (Ministry of Defence) and the Indian Navy throughout its various phases of construction.
  - The Mazagon Dock Limited (MDL) is manufacturing six Scorpene submarines with technical assistance from the Naval Group of France under a USD 3.75 bn deal signed in October 2005.
  - MDL is a defence public sector undertaking shipyard under the Ministry of Defence.
- Other Submarines under Project-75:
  - Two submarines, Kalvari and Khanderi, have been commissioned into the Indian Navy.
  - ◆ The Scorpene 'Vagir' is under trials.
  - The sixth one, **INS Vagsheer**, is under construction.

#### 11. Ans: C

# Exp:

- Recently, the 6th Edition of India UK Joint Company Level Military Training Exercise AJEYA WARRIOR has commenced in Uttarakhand.
  - The exercise is conducted alternatively in the United Kingdom and India.
  - ◆ The exercise is part of an initiative to develop interoperability and sharing expertise with friendly foreign nations.
- India and the UK participated in a two-day bilateral Passage Exercise (PASSEX) in the Bay of Bengal.
- Other Joint Exercises between India and UK:
  - Navy: Konkan

- Air Force: Indradhanush
- Garuda Shakti is a bilateral exercise between special forces of armies of India and Indonesia. This joint military exercise is a part of India and Indonesia defence cooperation.
- Hence, option C is correct.

#### 12. Answer: A

#### **Explanation**

- Under Article 355, the Centre can deploy its forces to protect a state against "external aggression and internal disturbance," even when the state concerned does not requisition the Centre's assistance and is reluctant to receive central forces.
  - ♦ Hence, statement 1 is correct.
- There are seven Central Armed Police Forces of the Union of India under the administrative control of the Ministry of Home Affairs (MHA). Hence, statement 2 is not correct.
- These Central Armed Police Forces are:
  - Assam Rifles (AR),
  - ◆ Indo-Tibetan Border Police (ITBP),
  - ◆ Central Industrial Security Force (CISF),
  - Central Reserve Police Force (CRPF),
  - National Security Guards (NSG) and
  - Sashastra Seema Bal (SSB),
  - Border Security Force (BSF).

# 13. Ans: D

### Exp:

- Recently, the 8<sup>th</sup> Edition of joint military exercise between the Indian Army and the Sri Lankan Army, Exercise MITRA SHAKTI was conducted in Sri Lanka.
  - ♦ It is based on counter insurgency and counter terrorism operations in semi urban terrain.
- It is the largest bilateral exercise being undertaken by the Sri Lankan Army and it forms a major part of India and Sri Lanka's growing defence partnership.
  - ◆ The joint exercise is designed for incorporating the current dynamics of United Nations' peacekeeping operations through tactical exercises and practical discussions.
- Other Exercises with Sri Lanka: Naval exercise (SLINEX).
- Hence, option D is correct.

#### 14. Ans: A

#### Exp:

 Recently, the 17th Indo-US Joint Military Exercise "Ex Yudh Abhyas 2021" was held at Joint Base Elmendorf-Richardson in Alaska (US).



- ◆ In February 2021, the previous version of the exercise was held in Bikaner's Mahajan Field Firing Ranges (Rajasthan).
- It is the largest running joint military training and defence cooperation endeavor between India and the US
  - The exercise was started in 2004 under the US Army Pacific Partnership Program. The exercise is hosted alternately between both countries.
  - The exercise aims at enhancing understanding, cooperation and interoperability between two Armies.
- Other Exercises between India and the US:
  - Exercise Tiger Triumph (Humanitarian Assistance and Disaster Relief exercise)
  - Exercise Vajra Prahar (Special Forces' Exercise)
  - ◆ Cope India (Air Force).
- Hence, option A is correct.

# 15. Ans: B

# Exp:

- The Indian Coast Guard (ICG) is an Armed Force, Search and Rescue and Maritime Law Enforcement agency under the Ministry of Defence. It is headquartered in New Delhi. Hence, statement 2 is not correct.
  - ◆ It was established in August 1978 by the Coast Guard Act, 1978 as an independent Armed force of India. Hence, statement 1 is correct.
  - ◆ The concept of forming ICG came into being after the 1971 war. The blueprint for a multidimensional Coast Guard was conceived by the visionary Rustamji Committee.
- It has jurisdiction over the territorial waters of India including contiguous zone and Exclusive Economic Zone (EEZ). hence, statement 3 is not correct.
- It is responsible for marine environment protection in maritime zones of India and is coordinating authority for response to oil spills in Indian waters.

#### 16. Ans: C

#### Exp:

- The Cabinet Committee on Security (CCS) has cleared procurement of 56 C-295 MW medium transport aircraft for the Indian Air Force under the Make-in-India initiative in the aerospace sector.
  - ◆ The C-295MW aircraft will be purchased from Airbus Defence and Space S.A., Spain.
- The C-295 MW is a transport aircraft of 5-10 tonne capacity with contemporary technology.

- It has a rear ramp door for quick reaction and para-dropping of troops and cargo.
- It will be installed with the indigenous Electronic Warfare Suite.
- C-295 MW will replace the Indian Air Force's ageing fleet of Avro-748 planes.
  - ◆ The Avro-748 planes are a British-origin twinengine turboprop, military transport and freighter with a 6-tonne freight capacity. Hence, statement 1 is correct.
- Airbus Defence and Space and Tata Advanced Systems
   Limited (TASL) will jointly execute the project to equip
   the air force with the new transport aircraft under the
   Make-in-India initiative in the aerospace sector.
- Airbus will supply the first 16 aircraft in fly away condition while the remaining 40 will be assembled in India by TASL. Hence, statement 2 is correct.

#### 17. Ans: D

## Exp:

- Recently, the armies of India and Nepal have started the 15<sup>th</sup> edition of joint battalion-level military exercise 'Surya Kiran' at Pithoragarh in the Indian state of Uttarakhand.
- The biannual exercise, which takes place alternately in both countries.
- The main objective of this exercise is to:
  - Establish military relations in inaccessible mountainous areas by the soldiers of both countries.
  - Provide humanitarian assistance under disaster management.
  - Get training in anti-terrorist operations.
  - Build interoperability and sharing expertise between the two countries.
- Hence, option D is correct.

# 18. Ans: C

- Left-wing extremists, popularly known as Maoists worldwide and as Naxalites in India. Hence, statement 1 is correct.
- The term Naxalism derives its name from the village Naxalbari of West Bengal. It originated as a rebellion against local landlords who bashed a peasant over a land dispute.
  - The rebellion was initiated in 1967, with an objective of rightful redistribution of the land to working peasants under the leadership of Kanu Sanyal and Jagan Santhal.



- It is considered that Naxals support Maoist political sentiments and ideology.
  - Maoism is a form of communism developed by Mao Tse Tung. It is a doctrine to capture State power through a combination of armed insurgency, mass mobilization and strategic alliances.
  - The region, affected by Left-wing extremism, is referred to as the Red corridor. Hence, statement 2 is correct.

# 19. Ans: A

# Exp:

- Akash is India's first indigenously produced medium range surface-to-air missile (SAM) that can engage multiple targets from multiple directions and it can be launched from mobile platforms like battle tanks or wheeled trucks. It has nearly 90% kill probability.
  - It can engage targets at a speed 2.5 times more than the speed of sound and can detect and destroy targets flying at low, medium and high altitudes.
- The development of the Akash SAM was started by the DRDO in the late 1980s as part of the Integrated Guided Missile Development Programme.
  - It is unique in the way that It can simultaneously engage multiple targets in group mode or autonomous mode.
  - It has built-in Electronic Counter-Counter Measures (ECCM) features, which means that it has mechanisms on-board that can counter the electronic systems that deceive the detection systems.
- The missile is supported by the indigenously developed radar called 'Rajendra'.
- The missile is reportedly cheaper and more accurate than US' Patriot missiles due to its solid-fuel technology and high-tech radars.
- Hence, option A is correct.

#### 20. Ans: B

#### Exp:

- Bodoland Territorial Council (BTC) is an autonomous region in the state of Assam in India.
  - It is made up of four districts (Kokrajhar, Chirang, Baksa and Udalguri) on the north bank of the Brahmaputra river, by the foothills of Bhutan and Arunachal Pradesh.
- The area under the jurisdiction of BTC, formed under the Second Bodo Accord (2003), was called the Bodo

- Territorial Autonomous District (BTAD). Hence, statement 1 is not correct.
- BTC is an area governed under the 6th schedule.
   However, BTC is an exception to the constitutional provision under the 6th schedule.
  - As it can constitute up to 46 members out of which 40 are elected. Hence. Statement 2 is correct.
  - ◆ Of these 40 seats, 35 are reserved for the Scheduled Tribes and non-tribal communities, five are unreserved and the rest six are nominated by the governor from underrepresented communities of the BTAD.

#### 21. Ans: D

#### Exp:

- The Defence Acquisition Council (DAC) is the highest decision-making body in the Defence Ministry for deciding on new policies and capital acquisitions for the three services (Army, Navy and Air Force) and the Indian Coast Guard. Hence, statements 1 and 2 are correct.
- The Minister of Defence is the Chairman of the Council.
   Hence, statement 3 is correct.
- It was formed, after the Group of Ministers recommendations on 'Reforming the National Security System', in 2001, post Kargil War (1999).

# 22. Ans: B

- Indo-Tibetan Border Police Force (ITBP) is a Central Armed Police Force functioning under the Ministry of Home Affairs, Government of India. Hence, statement 1 is correct.
  - ◆ Other Central Armed Police Forces are: Assam Rifles (AR), Border Security Force (BSF), Central Industrial Security Force (CISF), Central Reserve Police Force (CRPF), National Security Guards (NSG) and Sashastra Seema Bal (SSB).
- The ITBP was raised on 24th October, 1962 during the India-China War and is a border guarding police force specializing in high altitude operations.
- Presently, ITBP is deployed on border guarding duties from Karakoram Pass in Ladakh to Jachep La in Arunachal Pradesh covering 3488 km of Indo-China Border. Hence, statement 2 is not correct.
- The Force is also deployed for Anti Naxal operations and other internal security duties. Hence, statement 3 is correct.
- ITBP was initially raised under the Central Reserve Police Force (CRPF) Act, 1949. However, in 1992, parliament enacted the ITBPF Act and the rules were framed in 1994.v



#### 23. Ans: D

#### Exp:

- Under the 1951 UN Convention on the Status of Refugees and the subsequent 1967 Protocol gives the definition of a refugee.
  - According to it, the word refugee pertains to any person who is outside their country of origin and unable or unwilling to return owing to a wellfounded fear of persecution for reasons of race, religion, nationality, membership of a particular social group or political opinion.
  - However, the foreign nationals who enter the country without valid travel documents are treated as illegal migrants. Hence, statement 1 is not correct.
- India is not a signatory to the 1951 UN Convention relating to the Status of Refugees and the 1967 Protocol thereon. Hence, statement 2 is not correct.

#### 24. Ans: C

# Exp:

- Operation Pawan was the code name assigned to the operation by the Indian Peace Keeping Force to take control of Jaffna from the Liberation Tigers of Tamil Eelam, better known as the Tamil Tigers, in late 1987 to enforce the disarmament of the LTTE as a part of the Indo-Sri Lanka Accord.
- The United Liberation Front of Assam (U.L.F.A.) was formed in 1979 for the deportation of illegal migrants.
  - In the 1990s in Assam, two military operations,
     Operation Rhino and Bajrang, were launched against U.L.F.A. militants.
- Operation Woodrose was a military operation carried out by the Indira Gandhi-led Indian government in the months after Operation Blue Star to prevent the outbreak of widespread public protest in the state of Punjab.
- Hence, option C is correct.

# 25. Ans: A

# Exp:

- Akash Missile is India's first indigenously produced medium range Surface to Air missile that can engage multiple targets from multiple directions. Hence, statement 1 is correct.
  - ◆ The missile is unique in the way that it can be launched from mobile platforms like battle tanks or wheeled trucks. It has nearly 90% kill probability.
  - The missile is supported by the indigenously developed radar called 'Rajendra'. Hence, statement 2 is not correct.

- ◆ The missile is reportedly cheaper and more accurate than US' Patriot missiles due to its solidfuel technology and high-tech radars.
- It can engage targets at a speed 2.5 times more than the speed of sound and can detect and destroy targets flying at low, medium and high altitudes.
- The Akash missile system has been designed and developed as part of India's 30-year-old Integrated Guided-Missile Development Programme (IGMDP).
- Akash Missile (Akash-NG) is a surface-to-air Missile.
   Hence, statement 3 is not correct.
  - ◆ It is a new variant of the Akash missile that can strike targets at a distance of around 60 km and fly at a speed of up to Mach 2.5.
  - ◆ Once deployed, the Akash-NG weapon system will prove to be a force multiplier for the air defence capability of the Indian Air Force.
  - ◆ It is developed by Defence Research & Development Laboratory (DRDL), Hyderabad in collaboration with other DRDO laboratories.
  - ◆ It is being produced by Bharat Electronics Limited (BEL) and Bharat Dynamics Limited (BDL).

#### 26. Ans: B

- The exercise Cutlass Express is an annual maritime exercise conducted to promote national and regional maritime security in East Africa and the Western Indian Ocean. Hence, statement 2 is correct.
  - ◆ The exercise is designed to assess and improve combined maritime law enforcement capacity, promote national and regional security and increase interoperability between the regional navies.
- The 2021 edition of the exercise involves participation of 12 Eastern African countries, US, UK, India and various international organisations like International Maritime Organisation (IMO), United Nations Office on Drugs and Crime (UNODC), Interpol, European Union Naval Force (EUNAVFOR), Critical Maritime Routes Indian Ocean (CRIMARIO). Hence, statement 1 is not correct.
- India's Information Fusion Centre Indian Ocean Region (IFC-IOR) is also participating in the exercise.
  - India's participation is in accordance with India's stated policy towards maritime cooperation in the Indian Ocean region and vision SAGAR (Security and Growth for All in the Region).



#### 27. Ans: D

#### Exp:

- The Defence Acquisition Procedure (DAP) 2020
  enables the notification of a List of Weapons or
  Platforms that will be banned for import. Hence.
  Statement 1 is correct.
  - It focuses on Foreign Direct Investment (FDI) in defence manufacturing and indigenization of the manufacturing prices. Hence, statement 2 is correct.
  - It also introduces several new ideas such as the need to incorporate artificial intelligence in platforms and systems, use of indigenous software in defence equipment and 'innovation' by Start-ups and MSMEs as a new category of defence acquisition.
- Other Initiatives Taken to Boost Domestic Production of Defence Equipment:
  - Defence India Startup Challenge: DISC aims at supporting Startups/MSMEs/Innovators to create prototypes and/or commercialize products/ solutions in the area of National Defence and Security.
  - SRIJAN Portal: It is a one stop shop online portal that provides access to the vendors to take up items for indigenization. Hence, statement 3 is correct.

# 28. Ans: A

#### Exp:

- The National Security Guard is a counter-terrorism unit that formally came into existence in 1986 by an act of Parliament- 'National Security Guard Act, 1986'.
  - ◆ Its headquarters is located in Manesar, Gurugram. Hence, statement 1 is correct.
- The idea behind raising such force came in the aftermath of Operation Blue Star, Akshardham Temple attack and the assassination of former PM Indira Gandhi, for combating terrorist activities with a view to protect states against internal disturbances. Hence, statement 2 is not correct.
  - The Humanitarian and Disaster Relief Operation was code named Operation 'Nistar' which led to the successful evacuation of 38 Indian Nationals stranded in the Socotra Island, Yemen in the aftermath of cyclone Mekunu..

#### 29. Ans: D

# Exp:

 The Cabinet Committee on Security, in June 1999, had approved a 30-year submarine-building plan which

- included construction of 24 conventional submarines indigenously by 2030. Hence, statement 1 is correct.
- Project 75 (I), approved in 2007, is part of the Indian Navy's 30 year Plan for indigenous submarine construction.
  - ◆ P75I succeeded the Project-75 (P75) under which six diesel-electric attack submarines of the Kalvari class, based on the Scorpene class, were being built at MDL (Mazagon Dock Limited) – the third submarine, INS Karanj, was commissioned in March 2021. Hence, statement 2 is correct.
- Out of the total 24 submarines to be built in India, six will be nuclear-powered.
  - India has only one nuclear submarine, INS Arihant, at the moment. The INS Arighat, also a nuclear-powered ballistic missile submarine, is to be commissioned soon. Hence, statement 3 is correct.
  - INS Chakra, a nuclear submarine, which is taken on lease from Russia, is believed to be on its way back to the country of origin.

#### 30. Ans: A

#### Exp:

- The Innovations for Defence Excellence (iDEX) initiative was launched by the Prime Minister in April 2018.
- It aims to achieve self-reliance and foster innovation and technology development in Defence and Aerospace by engaging Industries including Micro, Small and Medium Enterprises (MSMEs), start-ups, individual innovators, R&D institutes and academia. Hence, option 1 is correct.
- iDEX is funded and managed by the Defence Innovation Organisation (DIO), and functions as the executive arm of DIO. Hence, option 2 is incorrect.

# 31. Ans: C

- Recently, the High Court of Manipur has ordered safe passage to seven Myanmar nationals, stranded at a border town in Manipur, to travel to the United Nations High Commissioner for Refugees (UNHCR) in New Delhi.
  - Although India has no clear refugee protection policy or framework, it does grant asylum to a large number of refugees from the neighbouring country.
  - India usually respects UNHCR's recognition of the status of such asylum seekers, mainly from Afghanistan and Myanmar.



- India is not a party to the UN Refugee Conventions but it is a party to the Universal Declaration of Human Rights of 1948 and the International Covenant on Civil and Political Rights of 1966. Hence, statement 1 is correct.
- Article 21 of the Constitution encompasses the right of non-refoulement.
  - Non-refoulement is the principle under international law which states that a person fleeing persecution from his own country should not be forced to return to his own country. Hence, statement 2 is correct.

# Exp:

- P-8I patrol aircraft is a long-range maritime reconnaissance and anti-submarine warfare aircraft. Hence, statement 1 is correct.
  - ◆ It is a variant of the P-8A Poseidon aircraft that Boeing company developed as a replacement for the US Navy's ageing P-3 fleet.
  - ♦ With a maximum speed of 907 kmph and an operating range of over 1,200 nautical miles, the P-8Is detect threats and neutralize them if required, far before they come anywhere near Indian shores.
  - ♦ Indian Navy became the first international customer for the P-8 aircraft in 2009.
- Defense purchases from the United States have been increasingly an integral part of growing ties between the two countries.
  - ◆ From near zero in 2008, India-US defence trade touched USD 20 billion in 2020, helped along by major policy upgrades.
- The US designating India a Major Defence Partner (in 2016) and then granting it the same access to defence technology as NATO allies and Australia, Japan and South Korea under Strategic Trade Authorization-1 (STA) in 2018. Hence, statement 2 is correct.

# 33. Ans: C

#### Exp:

- India has S-400 TRIUMF is a mobile, surface-to-air missile system (SAM) designed by Russia. Hence, statement 1 is correct.
  - It has an air defence bubble to knock off threats.
  - The system can engage all types of aerial targets within the range of 400km, at an altitude of up to 30km.
    - The system can track 100 airborne targets and engage six of them simultaneously.

- Ashwin Advanced Air Defence Interceptor Missile is an indigenously produced Advanced Air Defence (AAD) interceptor missile developed by Defence Research and Development Organisation (DRDO).
  - It is the advanced version of the low altitude supersonic ballistic interceptor missile. Hence, statement 2 is correct.
  - The missile also has its own mobile launcher. secure data link for interception, independent tracking and homing capabilities and sophisticated radars.
  - It uses an endo-spheric (within the Earth's atmosphere) interceptor that knocks out ballistic missiles at a maximum altitude of 60,000 to 100,000 feet, and across a range between 90 and 125 miles.

#### 34. Ans: A

- Indian Coast Guard is an Armed Force, Search and Rescue and Maritime Law Enforcement agency under the Ministry of Defence. Hence, statement 1 is correct
- It has a wide range of task capabilities for both surface and air operations. It is one of the largest coast guards in the world.
- It was established on 18<sup>th</sup> August 1978 by the Coast Guard Act, 1978. It performs non-military functions.
- The concept of forming ICG came into being after the 1971 war the blueprint for a multidimensional Coast Guard was conceived by the visionary Rustamji Committee.
- The organization is headed by the Director General Indian Coast Guard (DGICG) exercising his overall command and superintendence from the Coast Guard Headquarters (CGHQ) located at New Delhi.
- It has jurisdiction over the territorial waters of India including contiguous zone and exclusive economic zone. Hence, statement 2 is not correct.
  - The territorial water is up to 12 nautical miles from the nearest point of the baseline; beyond territorial waters is the Contiguous Zone extending up to 24 nautical miles; and beyond that up to 200 nautical miles is the Exclusive Economic Zone of India.
- Responsible for marine environment protection in maritime zones of India. Hence, statement 3 is correct.
- Acts as a coordinating authority for responding to oil spills in Indian waters.
- Protects India's maritime interests and enforces its maritime law.



#### Exp:

- An integrated theatre command envisages a unified command of the three Services, under a single commander, for geographical theatres (areas) that are of strategic and security concern.
  - The commander of such a force will be able to bear all resources at his disposal—from the Army, the Indian Air Force, and the Navy—with seamless efficacy.
  - The integrated theatre commander will not be answerable to individual Services. Hence, statement 2 is correct.
  - Integration and jointness of the three forces will avoid duplication of resources. The resources available under each service will be available to other services too.
  - The services will get to know one another better, strengthening cohesion in the defence establishment.
  - The Shekatkar committee has recommended the creation of three integrated theatre commands northern for the China border, western for the Pakistan border, and southern for the maritime role. Hence, statement 1 is correct.

#### 36. Ans: C

#### Exp:

- Python-5 Missile has been developed by the Israeli defence company Rafael Advanced Defense Systems.
   It is the newest member of the Python family. Hence, statement 1 is correct.
- Python-5 Missile is a fifth generation air-to-air missile that provides the pilot engaging enemy aircraft with a revolutionary full sphere launch capability. Hence, statement 2 is correct.
  - It can be launched from very short to beyondvisual ranges with greater kill probability, excellent resistance to countermeasures, irrespective of evasive target manoeuvers or deployment of countermeasures.
  - It is a dual use missile suitable for air-to-air and surface-to-air missions.
  - It is powered by a solid propellant rocket engine.
     The propulsion system provides a speed of Mach
     4 and an operational range of more than 20 km.
  - It is also equipped with lock-on-before launch (LOBL) and lock-on-after launch (LOAL) capabilities.

#### 37. Ans: C

#### Exp:

- The Defence Research and Development Organisation (DRDO) has developed an Advanced Chaff Technology to safeguard the naval ships against enemy missile attack.
  - ◆ DRDO has indigenously developed three variants of the critical technology namely Short Range Chaff Rocket (SRCR), Medium Range Chaff Rocket (MRCR) and Long Range Chaff Rocket (LRCR). Hence, statement 2 is correct.
- Chaff is an electronic countermeasure technology used by militaries worldwide to protect naval ships or other sensitive targets from radar and radio frequency (RF) guiding mechanisms of the enemy missile. Hence, statement 1 is correct.
  - The chaff rockets deployed in the air reflect as multiple targets for the missile guidance systems and deflecting adversary missiles, thus protecting their own assets.

# 38. Ans: D

#### Exp:

- The S-400 Triumf Missile System is a mobile, surface-to-air missile system (SAM) designed by Russia. It is the most dangerous operationally deployed modern long-range SAM (MLR SAM) in the world, considered much ahead of the US-developed Terminal High Altitude Area Defense system (THAAD). Hence, statement 1 and 2 are not correct.
- The system can engage all types of aerial targets including aircraft, unmanned aerial vehicles (UAV) and ballistic and cruise missiles within the range of 400km, at an altitude of up to 30km.
- The system can track 100 airborne targets and engage six of them simultaneously.

# 39. Ans: C

- Yudh Abhyas is a joint military exercise between India-US. Hence, pair 3 is correctly matched
- Dustlik is the joint military exercise of India and Uzbekistan.
  - Recently, the second edition of India-Uzbekistan joint military exercise "Dustlik-2" has started in Chaubatia, Uttarakhand. Hence, pair 1 is not correctly matched.
- The Indo-Mongolian Joint Military Exercise is termed as Nomadic Elephant. Hence, pair 2 is not correctly matched.



 Bold Kurukshetra is a Joint Military Exercise of India and Singapore. Hence, pair 4 is not correctly matched.

Joint Military Exercises of India	
Name of Exercise	Country
Garuda Shakti	Indonesia
Ekuverin	Maldives
Hand-in-Hand	China
Bold Kurukshetra	Singapore
Mitra Shakti	Sri Lanka
Nomadic Elephant	Mongolia
Shakti	France
Surya Kiran	Nepal
Yudh Abhyas	USA

#### 40. Ans: C

# Exp:

- Recently, Indian Navy's third stealth Scorpene class (of Project-75) Submarine INS Karanj has been commissioned at the Naval Dockyard Mumbai.
- Project 75 is a programme by the Indian Navy that entails building six Scorpene Class attack submarines.
   Hence, statement 1 is correct.
  - ◆ It is given support by the Department of Defence Production (Ministry of Defence) and Indian Navy throughout its various phases of construction.
  - ◆ The Mazagon Dock limited (MDL) is manufacturing six Scorpene submarines with technology assistance from Naval Group of France under a USD 3.75 bn deal signed in October 2005.
  - MDL is one of the leading shipbuilding yards and only submarine builder in India.
- The submarines in the Project-75 Scorpene Class are powered by diesel-electric propulsion systems.
   Hence, statement 2 is correct.
  - Scorpene is one of the most sophisticated submarines, capable of undertaking multifarious missions including anti-surface ship warfare, antisubmarine warfare, intelligence gathering, mine laying, and area surveillance.
  - Scorpene is a conventional powered submarine (diesel-electric) weighing 1,500 tonnes and can go up to depths of 300m.

# 41. Ans: C

# Exp:

 Recently, the Ministry of Home Affairs (MHA) has directed Nagaland, Manipur, Mizoram and Arunachal Pradesh to check illegal influx from Myanmar into India.

- The State governments have no powers to grant "refugee status to any foreigner" and India is not a signatory to the United Nations Refugee Convention of 1951 and its 1967 Protocol. Hence, statement 1 and 2 are correct.
  - ◆ It is a United Nations multilateral treaty that defines who is a refugee, and sets out the rights of individuals who are granted asylum and the responsibilities of nations that grant asylum.
  - It also set out which people do not qualify as refugees, such as war criminals.

# 42. Ans: D

# Exp:

- According to a recent report by Stockholm International Peace Research Institute (SIPRI) India's arms imports came down by a third (about 33%) between 2011-2015 and 2016-2020. Hence, statement 1 is not correct.
- Russia is the largest arms supplier to India in both periods (2011-2015 and 2016-2020). However, Russia's share of Indian arms imports fell from 70% to 49%.
   Hence, statement 2 is not correct.
  - ◆ The USA became the fourth largest supplier for the period 2016-20. It was the second largest arms supplier to India in 2011–15.
  - ◆ France and Israel were the second and third largest arms suppliers in 2016–20. India's arms imports from France increased by 709% while those from Israel rose by 82%.

# 43. Ans.: A

# Exp:

- Vajra Prahar is conducted between Special forces of India and USA.
- Shakti Exercise is conducted between India and France.
   Hence, pair 2 is not correctly matched.
- Yudh Abhyas is an annual exercise between armies of India and USA.
- Nomadic Elephant is a military exercise between Indiaand Mongolia. Hence, pair 4 is not correctly matched.

# 44. Ans: B

- Recently, France has begun its space military exercises to test its ability to defend its satellites.
  - ◆ The exercise drills are codenamed "AsterX" to commemorate the first French satellite Asterix from 1965. Hence, statement 1 is not correct.
  - ◆ The exercises are part of France's strategy to become the world's third-largest space power, after the USA and China.



- AsterX is the **first ever military exercise in space** not only for France but also for Europe. Hence, statement 2 is correct.
- asdIndSpaceEx is India's first simulated space warfare exercise, while Mission Shakti is a joint programme of ISRO and DRDO undertaken to develop highly-potent Anti-satellite weapons (ASAT).
  - ♦ It is a missile-based system to attack moving satellites. Hence, statement 3 is not correct.

#### 45. Ans: A

# Exp:

- The Ministry of Defence has announced the flying of three new fighter jets by 2026, of which two will be for the Air Force and one for the Navy.
  - ◆ This includes a new LCA (the Mk-2 version) and AMCA (Advanced Medium Combat Aircraft) for the Air Force and the TEDBF (Twin-Engine Deck-Based Fighter) for the Navy.
    - Twin-Engine Deck-Based Fighter (TEDBF) will be the first twin engine aircraft project in India that too for dedicated carrier based operations. Hence, statement 2 is not correct.
- Advanced Medium Combat Aircraft is a fifth generation aircraft. And will be used by the Indian Air Force.
  - ♦ It is a stealth aircraft, i.e. designed for stealth and unlike the LCA, which is designed for maneuverability. Hence, statement 1 is correct.
- It has a unique shape to achieve low radar crosssection and has got internal carriage of weapons.
  - ♦ It will have a range from over 1,000 km up to 3,000 km in different modes.
- It has two variants Mk-1 and Mk-2. While AMCA Mk-1 will have an imported engine, same as LCA Mk-2, the AMCA Mk-2 will have an indigenous engine.

#### 46. Ans: C

#### Exp:

- Recently, the Prime Minister of India has handed over the indigenously developed Arjun Main Battle Tank (MBT) MK-1A to the Indian Army.
- The Arjun MBT Project was initiated by Defence Research and Development Organisation (DRDO) in 1972 with the Combat Vehicles Research and Development Establishment (CVRDE) as its lead laboratory.
- Objective of the project is to create a "state-of-the-art tank with superior fire power, high mobility, and excellent protection". Hence, option C is correct.

#### 47. Ans: A

#### Exp:

- Recently, the second edition of the biennial pan-India coastal defence exercise 'Sea Vigil-21' has started. Hence, statement 1 is not correct.
  - ◆ The inaugural edition of the exercise was conducted in January 2019.
  - It is India's largest coastal defence drill.
- The 2021 exercise is being undertaken along the entire 7516 km coastline and Exclusive Economic Zone of India. Hence, statement 2 is correct.
- It involves all the 13 coastal States and Union Territories along with other maritime stakeholders, including the fishing and coastal communities.
  - ◆ 13 Coastal States and UTs: Gujarat, Maharashtra, Goa, Karnataka, Kerala, Tamil Nadu, Andhra Pradesh, Odisha, West Bengal, Daman & Diu, Puducherry, Andaman & Nicobar Islands (Bay of Bengal) and Lakshadweep Islands (Arabian Sea).
- Assets of the Indian Navy, Coast Guard, Customs and other maritime agencies are participating in the Exercise.
- The Indian Air Force, National Security Guard, the Border Security Force, oil handling agencies and airports also participate in the exercise. Hence, statement 3 is correct.

# 48. Ans: B

- Indian Air Force (IAF) and French Air and Space Force will conduct a bilateral Air exercise, Ex Desert Knight-21 at Air Force Station Jodhpur from 20 to 24th Jan 2021. Hence, pair 1 is correctly matched.
- The exercise is unique as it includes fielding of Rafale aircraft by both sides and is indicative of the growing interaction between the two premier Air Forces.
- Presently, the French detachment for Ex Desert Knight-21 is deployed in Asia as part of their 'SKYROS Deployment'.
  - Rafale fighter jets of India and France are carrying out wargames codenamed Exercise SKYROS.
  - Beginning September 2020, the IAF has inducted and operationalised eight Rafale fighter jets of the 36 jets contracted from France in a 7.87-billion euro deal in 2016.
- Defence Exercises between India and France:
  - Varuna Naval exercise
  - Garuda Air exercise
  - Shakti Army exercise
  - Hence, pair 2 is not correctly matched.



- Garuda Shakti is the joint military exercise between India and Indonesia.
- Mitra Shakti is the joint military exercise between India and Sri Lanka. Hence, pair 3 is correctly matched.

#### Exp:

- The Defence Research and Development Organisation (DRDO) has conducted a successful trial of its indigenously developed Smart Anti-Airfield Weapon (SAAW) off the Odisha coast from the Hawk-I jet of Hindustan Aeronautics Limited (HAL). Hence, statement 1 is correct.
  - ◆ This was the ninth successful test of the system conducted over the last five years.
- The system belongs to the glide bomb category and its development began around 2012-13, with crucial inputs from the Indian Air Force (IAF) and the first test was carried out in 2016.
- The weapon is designed to strike ground targets, especially adversary airfield infrastructure or similar strategically important installations. Hence, statement 2 is correct.
  - This is a 125-kilogram class smart weapon, capable of engaging ground enemy airfield assets such as radars, bunkers, taxi tracks, and runways, up to a range of 100 kilometres.

#### 50. Ans: A

#### Exp:

- A large-scale Tri service Military 'Exercise Kavach' will be conducted in January 2021 under the aegis of the Andaman and Nicobar Command (ANC), the only Joint Forces Command of the country.
  - ◆ The exercise involves participation from the Indian Army, Indian Navy, Indian Air Force and Indian Coast Guard. Hence, statement 1 is not correct.
- The Andaman and Nicobar Command (ANC) is the first integrated theatre command in India with headquarters at Port Blair. Hence, statement 2 is correct.

- Other Exercises for Coastal Security:
  - Exercise 'Sea Vigil'.
    - Recently, the second edition of the biennial pan-India coastal defence exercise 'Sea Vigil-21' has started.
  - ◆ Tropex (Theatre-level Readiness Operational Exercise) which Indian Navy conducts every two years. Hence, statement 3 is correct.

#### 51. Ans: B

# Exp:

# **Border Infrastructure and Management:**

- Recently, the Ministry of Home Affairs has approved the continuation of the Central Sector Umbrella Scheme of "Border Infrastructure and Management" (BIM) over the 15th Finance Commission Cycle from 2021-22 to 2025-26, at a cost of Rs.13,020 crore. Hence statement 1 is not correct.
  - Central sector schemes are 100% funded by the Union government and implemented by the Central Government machinery.
  - ◆ In the Centrally Sponsored Scheme (CSS) a certain percentage of the funding is borne by the States and the implementation is by the State Governments.
- The BIM scheme will help in the creation of infrastructure such as border fence, border flood lights, technological solutions, border roads and Border OutPosts (BOPs) and company operating bases to secure India's borders with Pakistan, Bangladesh, China, Nepal, Bhutan and Myanmar. Hence statement 2 is correct.
- It will strengthen the border infrastructure for improving border management, policing and guarding the borders.
  - ◆ India's border with Pakistan is 3,323 km long, including about 775 km of the Line of Control. The length of the border is 4,096 km with Bangladesh, 3,488 km with China, 1,751 km with Nepal, 699 km with Bhutan, 1,643 km with Myanmar.

