

SCIENCE AND TECHNOLOGY

❖ **How gene therapy could cure cancer**

➤ **CONTEXT:** Scientists in the United Kingdom testing a new form of cancer therapy, reported success in a teenaged girl, Alyssia, with a form of cancer called T-cell acute lymphoblastic leukaemia.

➤ **What happens in this form of cancer?**

- In this form of blood cancer, the T-cells, which are a class of white blood cells, equipped to hunt and neutralise threats to the body, turn against the body and end up destroying healthy cells that normally help with immunity. The disease is rapid and progressive and is usually treated by chemotherapy and radiation therapy.

➤ **What marked Alyssia's treatment?**

- According to the report Alyssia, 13, tried several of the standard treatments including chemotherapy and radiation but with limited success. Just when it seemed there was no hope, she was enrolled in the trial testing of an experimental medicine. This trial was led by doctors and scientists at the University College, London and Great Ormond Street hospital. Alyssia was the first to receive experimental gene therapy that relied on a new technique called 'base editing.'

➤ **What is 'base editing'?**

- A person's genetic code is several permutations of four bases: Adenine (A), Guanin (G), cytosine (C) and thymine (T).
- Sequences of these bases, akin to letters in the alphabet, spell out genes that are instructions to produce the wide array of proteins necessary for the body's functions.
- In Alyssia's case, her T-cells (perhaps because of a mis-arrangement in the sequence of bases) had become cancerous. A way to correct this mis-arrangement could mean a healthier immune system. In the last two decades, the world of biomedical engineering has been enthused by a technique that allow genes to be altered and errors 'fixed.' The most popular among these approaches has been the CRISPR-cas9 system.
- Inspired by how certain bacteria defend themselves against viruses, by snipping out and storing pieces of their genes, the CRISPR-cas 9 system, consists of an enzyme that acts like molecular scissors. It can be made to cut a piece of DNA at a precise location and a guide RNA can be used to insert a changed genetic code at the sites of incision. While there are a few ways to effect such changes, the CRISPR-cas9 system is believed to be the fast, most versatile system to effect such gene editing.
- David Liu, of the Broad Institute, Massachusetts has improvised on the CRISPR-cas9 system to be able to directly change certain bases: thus, a C can be changed into a G and T into an A.
- While still a nascent technology, base editing is reportedly more effective at treating blood disorders which are caused by so-called single point mutations, or when a change in a single base pair can cause terminal disease.

➤ **How did base-editing work for Alyssia's therapy?**

- The objective of the gene therapy in the case of T-cell leukemia was to fix her immune system in a way that it stops making cancerous T-cells.
 - ✓ First, healthy T-cells were extracted from a donor and put through a series of edits.
 - ✓ The first base edit blocked the T-cells targeting mechanism so it would cease attacking Alyssa's body, the second removed a chemical marking, called CD7, which is on all T-cells and the third prevented the cells being killed by a chemotherapy drug.
 - ✓ Finally, the T-cells were programmed to destroy all cells (cancerous or protective) with CD7 marked on it. After spending a month in remission, she was given a second donor transplant to regrow her immune system that would contain healthy T-cells.

➤ **How effective was the treatment?**

- Three months after the treatment, her cancer seemed to resurface but the most recent investigations suggest no signs of it. Alyssia was one of 10 people enrolled in the trial to receive the treatment.
- It has been 1.5 years since she was first diagnosed with the disease and whether the treatment has reliably and entirely fixed her immune system, remains to be established.

INTERNATIONAL TRADE

❖ **India's trade with China: What trade data show**

➤ **CONTEXT:** Amid fresh demands for snapping of trade ties with China in the wake of the Tawang skirmish, official data show that India's imports from the neighbouring country spiked sharply post the Galwan clash, in which 20 Indian soldiers were killed.

➤ **Second-biggest trading partner**

- China is India's second biggest trading partner after the United States.
- In 2021-22, India-China bilateral trade stood at \$115.83 billion, which was 11.19 per cent of India's total merchandise trade of \$1,035 billion. The US was just a notch above, with 11.54 per cent (\$119.48 billion) share.
- Till 20 years ago, China figured at the 10th position (2001-12) or lower (12th in 2000-01; 16th in 1999-00; 18th in 1998-99).
- From 2002-03, China started an upward march and became India's top trading partner in 2011-12. In the next year, the UAE dislodged it to the second place.
- However, China bounced back and again became India's top trading partner in 2013-14, and remained there till 2017-18. For the next two years (2018-19 and 2019-20), the US was at the top but in 2020-21, China again became India's number trading partner.
- While China and the US have both been India's top trading partners in recent years, there is a big difference between the trade with the world's two largest economies.
- While with the US, India had a trade surplus of \$32.85 billion during 2021-22, with China, it had a trade deficit of \$73.31 billion, the highest for any country.

- In fact, India's trade deficit with China during 2021-2022 was double the previous year's level (\$44.02 billion) and it was an all-time high.
- Apart from the US and China, the other eight countries and regions among India's top-10 trading partners during 2021-22 were UAE, Saudi Arabia, Iraq, Singapore, Hong Kong, Indonesia, South Korea, and Australia.
- **Sharp spike in trade deficit**
- India's trade deficit with China has increased from \$1 billion to \$73 billion in the past 21 years.
- Data show that imports from China have skyrocketed since the beginning of this century—from \$2 billion in 2001-02 to \$94.57 billion in 2021-20. However, during this period, India's exports to China have increased at a snail's pace—from about \$1 billion to \$21 billion. Due to this surge in imports, India's trade deficit with China has increased from about \$1 billion in 2001-02 to \$73 billion.
- It is expected to rise further. During the first seven months (April-October) of the current financial year (2022-23), India's trade deficit with China stood at \$51 billion, which was 39 per cent higher than the figure (\$37 billion) recorded in the corresponding period of the last fiscal.
- In fact, China alone accounted for over one-third of India's total trade deficit (\$191 billion) during 2021-22.
- The rising gap between imports and exports from China is evident from the fact that two decades ago, India's imports accounted for about 60 per cent of the total bilateral trade between two countries, but now it is over 80 per cent.
- **Imports up significantly since Galwan clash**
- An analysis of the trade data shows that the recent spike in trade with China is due to an unprecedented surge in imports from the neighbouring country in recent years.
- The monthly figure of imports from China, that hit a low of \$3.32 billion in June 2020 during the Covid lockdown, started rising soon after easing of restrictions and rose to \$5.58 billion in the following month (July 2020). Since then, it continued rising and scaled a new peak of \$10.24 billion in July 2022.
- The figure of average monthly imports from China has increased from \$5.43 billion in 2020-21 to \$7.88 billion in 2021-22.
- In the first seven months (April-October) of the financial year 2022-23, the figure reached \$8.61 billion. In the pre-Covid times, the average monthly import stood at \$5.43 billion during 2019-20.
- For the first time since June 2020, there has been a slight dip in imports from China in October 2022, with the figure coming down to \$7.85 billion from \$8.69 billion a year ago.
- **What India buys from China**
- During 2021-22, 15.42 per cent (\$94.57 billion) of India's total imports (\$613.05 billion) came from China. The top commodities that India bought included: electrical machinery and equipment and parts thereof; sound recorders and reproducers, television image and sound recorders and reproducers and parts; nuclear reactors, boilers, machinery and mechanical appliances and parts of thereof; organic chemicals; plastic and plastic articles; and fertilisers.
- A look at the item-wise list of the imports shows that the most-valued Chinese item in the Indian import basket was the personal computer (laptop, palmtop etc), which accounted for \$5.34 billion in 2021-22. It was followed by 'monolithic integrated circuits-digital' (\$4 billion), lithium-ion (\$1.1 billion), solar cells (\$3 billion) and urea (\$1.4 billion).
- As far as the US is concerned, India imported petroleum crude, coking coal, LNG, diamonds, almonds, turbo-jets, etc.
- **What China buys from India**
- In 2021-22, India's exports to China stood at \$21.25 billion, which was 5 per cent of India's total shipments (\$422 billion). Among the top commodities China bought from India included: Ores, slag and ash (\$2.5 billion); organic chemicals (\$2.38 billion), mineral fuels, mineral oils and products of their distillation, bituminous substances, mineral waxes (\$1.87 billion); iron and steel (\$1.4 billion); aluminum and articles of thereof (\$1.2 billion); and cotton (\$1.25 billion). Among single items, light Naphtha (\$1.37 billion) was India's most valued export item to China during 2021-22.
- As far as the United States is concerned, diamonds, gold jewellery set with diamonds, vannamei shrimp, and turbo-jets were among the top items imported from India.

PRELIMS

1. **Kazind – 2022**
- **CONTEXT: The 6th Edition of Indo - Kazakhstan joint training exercise "KAZIND-22" is scheduled to be conducted at Umroi (Meghalaya) from 15 to 28 December 2022.**
- Joint annual training exercise with the Kazakhstan Army was instituted in 2016 as Exercise Prabal Dostyk, which was later upgraded to a company level exercise and renamed as Ex Kazind in 2018.
- Kazakhstan Army soldiers comprising of troops from the Regional Command, South and Indian Army soldiers from the 11 Gorkha Rifles will be participating in the exercise.
- Aim of the exercise is to build positive military relations, imbibe each other's best practices and promote the ability to operate together while undertaking counter terrorist operations in semi urban / jungle scenario, under a UN peace enforcement mandate.
- This joint exercise will enable the two armies to train, plan and execute a series of combined tactical drills for neutralising of likely threats that may be encountered in UN peace keeping operations.
- The scope of this exercise involves a Command Post Exercise (CPX) at the Battalion level and Company level Field Training Exercise (FTX) on sub-conventional operations.
- During the exercise, participants will engage in variety of missions ranging from joint planning, joint tactical drills, basics of special arms skills, HADR and raiding a hostile target.
- "Exercise KAZIND" will enhance the level of defence cooperation between Indian Army and Kazakhstan Army which will further foster the bilateral relations between the two nations.
2. **National Creche Scheme**

- **CONTEXT:** Under the newly approved Mission Shakti, the National Creche Scheme has been revised and subsumed as Palna scheme to provide day-care facilities for children (6 months to 6 years) of working mothers and to improve nutrition and health status of children. Total budget allocation for the National Creche Scheme for Financial Year 2020-21 was Rs. 75 Crore and for FY 2021-22 was Rs. 53 Crore to all States/UTs. This information was given by the Union Minister for Women & Child Development, Smt. Smriti Zubin Irani in a written reply in the Rajya Sabha.
- About
 - Launched in 2006, the scheme was previously known as the Rajiv Gandhi National Creche Scheme for The Children of Working Mothers.
 - It was launched to primarily nurture children from mothers belonging to low-income groups who go to work at least 15 days in a month.
- Funding pattern
 - All states, except the Himalayan & North Eastern states centre - 60%, state 30% and NGOs 10%
 - Himalayan & North Eastern states - centre 80%, state 10%, and NGO 10%
 - UTs - centre 90% and NGO 10%
 - While BPL families pay Rs. 20 per child per month, the fee ranges from Rs.100 to Rs. 200 for others.
 - Implementation - This centrally sponsored scheme is being implemented by the Ministry of Women and Child Development (WCD).
- Features of the National Creche Scheme
 - ✓ Daycare Facilities including Sleeping Facilities.
 - ✓ Early Stimulation for children below 3 years and pre-school Education for 3 to 6 years old children.
 - ✓ Supplementary Nutrition (to be locally sourced)
 - ✓ Growth Monitoring
 - ✓ Health Check-up and Immunization
- The guidelines provide that
 - ✓ The Crèches shall be open for 26 days in a month and for seven and half (7-1/2) hours per day.
 - ✓ The number of children in the crèche should not be more than 25 per crèche.
 - ✓ User charges will be levied to bring in an element of community ownership.
- Target Group - The scheme focuses on children of 6 months to 6 years, of working women in rural and urban areas who are employed for a minimum period of 15 days in a month, or six months in a year.
- 3. **Atal Vayo Abhyuday Yojana**
- **CONTEXT:** The Minister of State Social Justice and Empowerment has informed Lok Sabha about Atal Vayo Abhyuday Yojana.
- **Aim:** To improve the quality of life of the Senior Citizens by providing basic amenities like shelter, food, medical care and entertainment opportunities and by encouraging productive and active ageing through providing support.
- Components
 - Integrated Programme for Senior Citizens (IPSR)
 - State Action Plan for Senior Citizens (SAPSR)
 - Rashtriya Vayoshri Yojana (RVY)
 - Livelihood and Skilling Initiatives for Senior Citizens
 - ✓ Senior Able Citizens for Re-Employment in Dignity (SACRED)
 - ✓ (Action Groups Aimed at Social Reconstruction (AGRASR Groups))
 - Promoting silver economy
 - Channelizing CSR funds for Elderly care
 - Scheme for Awareness Generation and Capacity Building for welfare of Senior Citizens
 - ✓ Training, Awareness, Sensitization, Setting up of National Helpline for Senior Citizens.
- **Scheme of Integrated Programme for Senior Citizens (IPSR)**, grants upto 100% of project cost are given for running and maintenance the following projects:-
 - Senior Citizens' Homes for 25 destitute Senior Citizens to provide food, care and shelter.
 - Senior Citizens' Homes for 50 Elderly Women including those under Sansad Adarsh Gram Yojana (SAGY) to provide food, care and shelter.
 - Continuous Care Homes and Homes for senior citizens afflicted with Alzheimer's disease/ Dementia etc
- **Rashtriya Vayoshri Yojana (RVY):** Scheme for providing Physical Aids and Assisted-Living Devices for Senior Citizens
 - The Scheme of Rashtriya Vayoshri Yojana (RVY) has been formulated by Ministry of Social Justice and Empowerment with an objective to provide aids and assisted living devices viz. walking sticks, elbow crutches, walkers/crutches, tripods/quadpods, hearing aids, wheelchairs, artificial dentures and spectacles, free of cost to senior citizens belonging to BPL category who suffer from age related disabilities/infirmities such as low vision, hearing impairment, loss of teeth and loco-motor disabilities.
- **Livelihood and Skilling Initiatives for Senior Citizens**
 - Senior Able Citizens for Re-Employment in Dignity (SACRED)– Portal will bring senior citizens with experience, time and energy together with other employers.
 - Action Groups Aimed at Social Reconstruction (AGRASR Groups): Elderly Self Help groups – The Senior Citizens are encouraged to form Self-Help Groups (SHGs), which will provide them with a platform to share the time constructively with each other.
- **Promoting Silver Economy**

- This is new scheme launched with an objective to encourage the entrepreneurs for to think about the problems of the elderly and come out with innovative solutions.
- The Government aims to achieve the objective by providing upto Rs. 1 crore as financial assistance through equity participation, through an open invitation on a portal namely Senior care Ageing Growth Engine (SAGE).
- 4. **National AIDS & STD control Programme**
 - **CONTEXT: The Union Minister of State for Health and Family Welfare, Dr. Bharati Pravin Pawar gave Update on National AIDS Control Programme in a written reply in the Rajya Sabha**
 - Government of India provides free lifelong antiretrovirale (ARV) medicines for people living with HIV. Under its National AIDS Control Programme, presently 15.23 lakh (Approx.) people living with HIV are given ARV medicines through 687 ART centers and 1261 link ART centers irrespective of their income background.
 - It includes free adherence counselling, diagnostic and monitoring services like baseline laboratory investigations, CD4 count testing, viral load testing, etc.
 - **Some facts**
 - The national AIDS response under India's AIDS Control Programme (NACP) is globally considered to be an extremely successful programme.
 - The annual new HIV infections in India have declined by 48% against the global average of 31% [the baseline year of 2010].
 - The annual AIDS-related deaths have declined by 82% against the global average of 42% (the baseline year of 2010).
 - As a result, the HIV prevalence in India continues to be low with an adult HIV prevalence of 0.22%.
 - **About National AIDS Control Programme (NACP)**
 - The National AIDS Control Programme (NACP), launched in 1992.
 - It is being implemented as a comprehensive programme for prevention and control of HIV/AIDS in India.
 - Over time, the focus has shifted from raising awareness to behaviour change, from a national response to a more decentralised response and to increasing involvement of NGOs and networks of PLHIV. It has been Revised, Revived and Revamped to focus on hard-to-reach and at-risk populations.
 - The Phase-IV (Extension) of National AIDS and STD Control Programme concluded on March 31, 2021.
 - Phase V
 - ✓ The NACP Phase-V will take the national AIDS and STD response till Financial Year 2025-26 towards the attainment of United Nations' Sustainable Development Goals 3.3 of ending the HIV/AIDS epidemic as a public health threat by 2030 through a comprehensive package of prevention, detection and treatment services.
 - ✓ The programme will offer free HIV prevention, detection and treatment services in facility and community settings to high-risk, vulnerable and other 'at-risk' populations and PLHIV without any stigma and discrimination promoting equity and inclusiveness.
 - **About Acquired immunodeficiency syndrome (AIDS)**
 - It is a chronic, potentially life-threatening health condition caused by the human immunodeficiency virus (HIV) which damages the human immune system.
 - **Transmission:** Through direct contact with certain body fluids (blood, semen, rectal fluid, vaginal fluid or breast milk) from a person infected with HIV.
 - **Symptoms:**
 - ✓ Stage 1: Flu-like illness (Fever, chills, rashes, night sweats)
 - ✓ Stage 2: Clinical latency (No particular symptoms)
 - ✓ Stage 3: AIDS (Weakening of Immune System)
 - **Prevention & Treatment:** Prevention is better than cure, using protective techniques, non-contaminated needles & preventing mother to child transmission.
 - ✓ Effective antiretroviral treatment (ART) prevents HIV transmission from mother to child during pregnancy, delivery and breastfeeding.
 - ✓ HIV is treated with antiretroviral therapy consisting of one or more medicines.
 - ✓ ART does not cure HIV but reduces its replication in the blood, thereby reducing the viral load to an undetectable level.
 - ✓ ART enables people living with HIV to lead healthy, productive lives. It also works as an effective prevention, reducing the risk of onward transmission by 96%.
 - ✓ ART should be taken every day throughout the person's life. People can continue with safe and effective ART if they adhere to their treatment.
 - ✓ In cases when ART becomes ineffective due to reasons such as lost contact with health care providers and drug stock outs, people will need to switch to other medicines to protect their health.
 - ✓ Someone who is on antiretroviral therapy and virally suppressed will not pass HIV to their sexual partners.
 - ✓ Condoms prevent HIV and other sexually transmitted infections, and prophylaxis use antiretroviral medicines to prevent HIV.
 - **Steps taken by Government of India**
 - **HIV/AIDS Act 2017:** The Human Immunodeficiency Virus and Acquired Immune Deficiency Syndrome (Prevention and Control) Act, 2017, came into force on September 10, 2018.
 - ✓ It aims to prevent and control the spread of HIV and AIDS in the country and provides for penalties for discrimination against those affected by the virus.
 - ✓ It provides a legal and enabling framework to safeguard the human rights of infected and affected populations.
 - **95-95-95 Strategy:** The Joint United Nations Programme on HIV/AIDS aims for HIV testing, treatment and viral suppression rates to be 95%--95%--95% by 2025.

- ✓ Earlier, it was 90-90-90 Strategy. It calls for 90% of HIV-infected individuals to be diagnosed by 2020, 90% of whom will be on anti-retroviral therapy (ART) and 90% of whom will achieve sustained virologic suppression by 2020.
- **HIV Prevention Model:** India's unique HIV prevention model is centred around the concept of 'Social Contracting' through which the 'Targeted Interventions Program' is implemented with support from civil society. The program is aimed at behaviour change, communication, outreach, service delivery, counselling & testing and ensuring linkages to HIV care.
- **Free Anti-Retro-Viral Treatment:** India is providing free anti-retro-viral treatment to close to 1.4 million people. Indian drugs are also reaching millions of People living with HIV in Africa.
- **Viral Load Testing Facilities:** They have been scaled up, and HIV counselling, testing and community-based screening for early diagnosis have been ramped up to achieve the target of Elimination of Mother to Child Transmission of HIV.
- **Project Sunrise:** It was launched by the Ministry of Health and Family Welfare (2016) to tackle the rising HIV prevalence in north-eastern states.
- Prevention from Parent to Child Transmission (PPTCT) programme.
- Social Awareness through workshops.

ANSWER WRITING

Q: "India's potential in space sector cannot be realized until private participation is not promoted." Explain this statement.

As of 2021, according to Space Tech analytics, India is the sixth-largest player in the industry internationally having 3.6% of the world's space-tech companies. US accounts for 56.4% of all companies in the space-tech ecosystem. The Indian Space Industry was valued at \$7 billion in 2019 and aspires to grow to \$50 billion by 2024. The country's standout feature is its cost-effectiveness.

Role of private sector in space

- **1. Increasing Demand:** Indian Space Research Organisation (ISRO)'s annual budget has crossed ₹10,000 crore (\$1.45 billion) and is growing steadily. However, demand for space-based services in India is far greater than what ISRO can provide. Therefore, private sector investment is critical, for which a suitable policy environment needs to be created.
- **Bolster Innovation:** Private players can bring in the innovation needed for developing space-based applications and services. Additionally, the demand for these services is soaring worldwide and in India, with satellite data, imageries and space technology being used across most sectors.
- To expand satellite-based services: Private sector can facilitate development of a cost-effective product or a service, thus creating large base of new consumers.
- **Technological advancement:** Commercialisation will also develop better technologies which are important. It will allow integration of many other technologies like artificial intelligence into space exploration activities. With experience from space activities, the private sector can increase the role of technology in other areas.
- **Risk Sharing:** Every launch consists of various risks. Private sector helps in sharing the risk of cost factor. Failure costs will be distributed. Also with increased private participation, failures will reduce due to increased available human capital and mind.
- **Greater pool of resources:** Public resources- land, labour, capital are limited. Private sector participation will open a new pool of resources and talent. It will bring more funding, and experience into space exploration activities.

Way forward

- **FDI reforms:** Government can consider more liberal FDI rules for the sector to encourage both domestic as well as international funding.
- **Independent regulator:** Creating an independent regulator can help in instilling confidence among private players.
- **Incentives to private companies:** Opening up of ISRO's testing facilities to the private sector will reduce cost and increase incentives for firms to build operational spacecraft.
- **Regulatory clarity:** to ensure compliance with India's international obligations, ensuring safety, covering liabilities and standardization. Improved regulatory environment would mean fewer barriers of entry for private firms.
- **Incubator and Grant Programs:** that support the sector during this initial R&D phase will greatly improve entrepreneurship and investor participation, as well as increase the success rate of these start-ups
- Hence, the recent initiatives to encourage private participation like establishment of IN-SPACE and New space India limited (NSIL) is a good step to realize the potential of space sector which should be further promoted through aforementioned suggestions. This would may also enable India to become a global hub in the space sector.

MCQs

1. Consider the following statements:
 1. CRISPR-Cas9 technology enables geneticists and medical researchers to edit parts of the genome.
 2. It is the most versatile and precise method of genetic manipulation.

Which of the following statements given above is/are correct?

- a) 1 only
 - b) 2 only
 - c) **Both 1 and 2**
 - d) Neither 1 nor 2
2. Consider the following statements about HIV/AIDS.
 1. The last stage of HIV infection is known as AIDS.
 2. AIDS/HIV is a non-curable but preventable infection.
 3. Anti-Retroviral Therapy (ART) is used as a measure to suppress the infection.
 Which of the given statement/s is/are correct?
 - a) 1 and 2 only

- b) 2 and 3 only
c) 1 and 3 only
d) 1,2 and 3
3. Project Sunrise often mentioned in news is related to which of the following?
a) Prevention of Malaria in eight North Eastern States
b) Prevention of AIDS in eight North Eastern States
c) Prevention of COVID-19 in eight North Eastern States
d) None of the above
4. Which of the following statements regarding Rashtriya Vayoshri Yojana is not correct?
a) It is a scheme launched by the Ministry of Social Justice
b) It is a scheme for providing physical aids and assisted living devices.
c) It is a scheme for senior citizens belonging to BPL category.
d) It is a pension scheme.
5. Consider the following statements about a scheme launched by the Government of India:
It was launched to provide social security during old age and to protect elderly persons aged 60 years and above against a future fall in their interest income due to uncertain market conditions. The scheme enables old age income security for senior citizens through provision of assured pension/ return linked to the subscription amount based on government guarantee to Life Insurance Corporation of India (LICI).
Identify the scheme.
a) Pradhan Mantri Swasthya Suraksha Yojana
b) Pradhan Mantri Vaya Vandana Yojana
c) Pradhan Mantri Ujjwala yojana
d) Rashtriya Vayoshri Yojana
6. With reference to Atal Vayo Abhyuday Yojana(AVYAY), consider the following statements;
1. The scheme aims to improve the quality of life of the Senior Citizens by providing basic amenities.
2. The Ministry of Social Justice & Empowerment is the nodal ministry of the scheme.
Which of the statements given above is/are correct?
a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2
7. Consider the following statements with respect to National Creche Scheme
1. It is a Centrally Sponsored Scheme.
2. It aims to provide day care facilities to children of age group 6 months to 6 years of working mothers.
3. Ministry of Women and Child Development conducts the third party evaluation of the implementation of the scheme.
Which of the statement/s given above is/are correct?
a) 2 only
b) 1 and 2 only
c) 2 and 3 only
d) 1, 2 and 3
8. With reference to "Kazind – 2022" exercise consider the following statements
1. The 6th Edition of joint training exercise "KAZIND-22" is to be conducted at Umroi (Meghalaya) from 15 to 28 December 2022
2. It is a military exercise between Indo – Kazakhstan
3. Kazakhstan Army soldiers and Indian Army soldiers from the 11 Assam Rifles will be participating in the exercise
Which of the above statement/s is/are not correct?
a) 1 and 2 only
b) 2 and 3 only
c) 2 only
d) 3 only
9. Which of the following country recently banned sale of tobacco to those born after 2008?
a) Australia
b) China
c) Indonesia
d) New Zealand
10. "Beyapore Uru (boat)" often mentioned in news is associated with which of the following state?
a) Kerala
b) Andhra Pradesh
c) Manipur
d) Arunachal Pradesh