
ANSWERS & EXPLANATIONS

GENERAL STUDIES (P) TEST – 4132 (2024)

Q 1.C

- Demand-pull inflation is a type of inflation that is influenced by growing demand for a good or service. When the aggregate demand is higher than the aggregate supply, prices will rise. It is commonly described as "too much money chasing too few goods."
- **What Causes Demand-Pull Inflation?**
 - **Economic Growth:** When an economy is thriving, people and businesses tend to feel more confident in spending their money. When this happens, general demand rises and many businesses may have trouble keeping pace with the increased demand.
 - **Surge in Exports:** Exchange rate depreciation can drive aggregate demand and create demand-pull inflation by encouraging a high level of exports. Typically when this happens people in a country buy fewer imports while at the same time exports from their country increase.
 - **Government Spending:** When the government begins spending on large-scale projects, this often drives prices up. This is because substantial projects funded by massive amounts of capital that governments provide creates more demand overall. Fiscal policies that drive demand can also create demand-pull inflation.
 - **Inflation Forecasts:** When economists, the government, or major media outlets forecast inflation, this can unintentionally cause demand-pull inflation through a couple of avenues. First, some companies may raise their prices preemptively to meet the expected inflation. Second, some consumers may make major purchases preemptively to avoid paying higher prices later. This can create greater demand and result in demand-pull inflation.
 - **Exorbitant Supply of Money:** When a government prints too much money, this can create demand-pull inflation. In this case, the popular definition of demand-pull inflation "too much money chasing too few goods" applies quite literally.
- **Hence option (c) is the correct answer.**

Q 2.B

- A common method used to estimate poverty in India is based on the income or consumption levels and if the income or consumption falls below a given minimum level, then the household is said to be Below the Poverty Line (BPL).
- **Poverty:** According to the World Bank, Poverty is pronounced deprivation in well-being and comprises many dimensions. It includes low incomes and the inability to acquire the basic goods and services necessary for survival with dignity.
- **Poverty Line:** The conventional approach to measuring poverty is to specify a minimum expenditure (or income) required to purchase a basket of goods and services necessary to satisfy basic human needs and this minimum expenditure is called the poverty line.
- **Poverty Line Basket:** The basket of goods and services necessary to satisfy basic human needs is the Poverty Line Basket (PLB).
- **Poverty Ratio:** The proportion of the population below the poverty line is called the poverty ratio or headcount ratio (HCR). **Hence option (b) is the correct answer.**

Q 3.A

- According to IMF and OECD definitions, **the acquisition of at least ten percent of the ordinary shares or voting power in a public or private enterprise by non-resident investors makes it eligible to be categorized as a foreign direct investment (FDI).** In India, a particular FII is allowed to invest up to

10% of the paid-up capital of a company, which implies that any investment above 10% will be construed as FDI, though officially such a definition did not exist. It may be noted that there is no minimum amount of capital to be brought in by the foreign direct investor to get the same categorized as FDI. **Hence option (a) is the correct answer.**

- **FDI investors cannot easily liquidate their assets** and depart from a nation, since such assets may be very large and quite illiquid. FPI investors can exit a nation literally with a few mouse clicks, as financial assets are highly liquid and widely traded.
- FDI can be used to develop infrastructure, set up manufacturing facilities and service hubs, and invest in other productive assets such as machinery and equipment, which contributes to economic growth and stimulates employment. FDI is obviously the route preferred by most nations for attracting foreign investment since it is much more stable than FPI and signals long-lasting commitment.
- FDI investors typically take controlling positions in domestic firms or joint ventures and are actively involved in their management. **FPI investors, on the other hand, are generally passive investors who are not actively involved in the day-to-day operations and strategic plans of domestic companies, even if they have a controlling interest in them.**

Q 4.B

- **Sterilization by the Reserve Bank of India (RBI):** The RBI often uses its instruments of money creation for stabilizing the stock of money in the economy from external shocks. Suppose due to future growth prospects in India investors from across the world increase their investments in Indian bonds which under such circumstances, are likely to yield a high rate of return. **They will buy these bonds with foreign currency.**
- Since one cannot purchase goods in the domestic market with foreign currency, a person or a financial institution that sells these bonds to foreign investors will exchange its foreign currency holding into a rupee at a commercial bank. The bank, in turn, will submit this foreign currency to RBI and its deposits with RBI will be credited with an equivalent sum of money. The commercial bank's total reserves and deposits remain unchanged (it has purchased the foreign currency from the seller using its vault cash, which, therefore, goes down; but the bank's deposit with RBI goes up by an equivalent amount – leaving its total reserves unchanged).
- **There will, however, be increments in the assets and liabilities on the RBI balance sheet. RBI's foreign exchange holding goes up.** On the other hand, the deposits of commercial banks with RBI also increase by an equal amount. But that means an increase in the stock of high-powered money – which, by definition, is equal to the total liability of RBI.
- **With a money multiplier in operation, this, in turn, will result in an increased money supply in the economy. This increased money supply may not altogether be good for the economy's health.** If the volume of goods and services produced in the economy remains unchanged, the extra money will lead to an increase in the prices of all commodities.
- **People have more money in their hands with which they compete each other in the commodities market for buying the same old stock of goods.** As too much money is now chasing the same old quantities of output, the process ends up in bidding up prices of every commodity – an increase in the general price level, which is also known as inflation.
- RBI often intervenes with its instruments to prevent such an outcome. In the above example, RBI will undertake an open market sale of government securities of an amount equal to the amount of foreign exchange inflow in the economy, thereby keeping stock of high-powered money and total money supply unchanged. Thus it sterilizes the economy against adverse external shocks. This operation of RBI is known as sterilization. **Hence option (b) is the correct answer.**

Q 5.D

- **The Department of Biotechnology (DBT) in the Ministry of Science & Technology has through "Mission COVID Suraksha", delivered four vaccines, augmented the manufacturing of Covaxin, and created the necessary infrastructure for the smooth development of future vaccines so that our country is pandemic ready. These vaccines were developed in collaboration with various organizations.**
- **The four vaccines are- ZyCoV-D- World's 1st and India's indigenously developed DNA Vaccine, CORBEVAX™-India's first protein subunit vaccine, GEMCOVAC™-19 - World's 1st and India's indigenously developed mRNA vaccine and iNCOVACC-World's 1st and India's indigenously developed intranasal COVID-19 Vaccine.**

- **The world's first intranasal vaccine, christened as iNcovacc**, is based on a delivery vehicle, a virus, that causes the common cold (adenovirus vector). The spike protein on the virus is the one that attaches to human cells to infect them. The spike protein on the vector is stabilized with appropriate changes, for a stable form at delivery, which is more effective in producing immunity or resistance to a virus. **It is a recombinant replication-deficient adenovirus vectored vaccine with a pre-fusion stabilized spike protein. Hence pair 1 is correctly matched.**
 - **It is different from Covaxin as the latter is an inactivated (killed) vaccine administered through intramuscular injections. It will be delivered as nasal drops, not as a spray, and to be given as four drops/each nostril, a total of 8 drops in a slow drip process of delivery, rather than a single shot/spray.**
- **COVAXIN**, India's indigenous COVID-19 vaccine by Bharat Biotech is developed in collaboration with the Indian Council of Medical Research (ICMR) - National Institute of Virology (NIV). The indigenous, **inactivated vaccine** is developed and manufactured in Bharat Biotech's BSL-3 (Bio-Safety Level 3) high containment facility
- The vaccine is developed using Whole-Virion Inactivated Vero Cell-derived platform technology. Inactivated vaccines do not replicate and are therefore unlikely to revert and cause pathological effects. They contain dead viruses, incapable of infecting people but still able to instruct the immune system to mount a defensive reaction against an infection. **Hence pair 2 is correctly matched.**
- **Why develop Inactivated Vaccine?** Conventionally, inactivated vaccines have been around for decades. Numerous vaccines for diseases such as Seasonal Influenza, Polio, Pertussis, Rabies, and Japanese Encephalitis use the same technology to develop inactivated vaccines with a safe track record of >300 million doses of supplies to date. It is the well-established, and time-tested platform in the world of vaccine technology.
- **Zydus Cadila**, the world's first and India's indigenously developed **DNA-based vaccine** is for Children and adults 12 years and above. It was developed in partnership with the Department of Biotechnology, Government of India under the 'Mission COVID Suraksha' and implemented by BIRAC. **Hence pair 3 is correctly matched.**

Q 6.B

- **Factor cost is the cost of an item of goods or a service in terms of the various factors which have played a part in its production or availability.**
- **In order to arrive at the market prices, we have to add to the factor cost the total indirect taxes less total subsidies. Also, it does not generally include direct taxes. Hence option (b) is the correct answer.**
- Once goods and services are produced they are sold in a marketplace at a set market price. The market price is the price that consumers will pay for the product when they purchase it from the sellers. Taxes charged by the government will be added to the factor price while subsidies provided will be reduced from the factor price to arrive at the market price. Taxes are added on because taxes are costs that increase the price, and subsidies are reduced because subsidies are already included in the factor cost, and cannot be double-counted when the market price is calculated. The market price will be decided, depending on the cost of production, demand for the product, and prices that are charged by competitors. In economics, the market price is identified as the price at which demand for the product or service is equal to its supply. Changes in the levels of demand and supply, cost of factor inputs, and other economic and environmental conditions can affect the market price of a good or service.

Q 7.D

- **Capital Account Convertibility (CAC)**
 - Currency convertibility is the ease with which a country's currency can be converted into gold or another currency.
 - It means freedom to convert local financial assets into foreign ones at market-determined exchange rates. **Hence, statement 1 is correct.**
 - Currently, India allows full convertibility in the current account but only partial convertibility in the capital account. **Hence, statement 2 is correct.**
 - S. S. Tarapore Committee has recommended moving towards full CAC. **Hence, statement 3 is correct.**
 - Should India move towards full Capital Account convertibility?
 - **Positives:**
 - ✓ **RBI recently allowed Indian companies to raise rupee debt offshore.**

- ✓ Convertibility would facilitate further liberalisation and increase foreign investment.
- ✓ Increasing openness to international trade may create opportunities for avoiding capital account restrictions.
- ✓ It can lead to the free exchange of currency at lower rates. Also, it promotes unrestricted mobility of capital – which may impact the economy in times of global recession.
- **Negatives:**
 - ✓ It could destabilise an economy in case there are massive capital flows in and out of the country;
 - ✓ Currency appreciation/depreciation could affect the trade balance.

Q 8.B

- **Disguised Unemployment**
 - It is a situation in which more people are doing work than actually required. Even if some are withdrawn, production does not suffer. In other words, it refers to a situation of employment with surplus manpower in which some workers have zero marginal productivity. **Hence option (b) is the correct answer.**
 - Overcrowding in agriculture due to the rapid growth of the population and lack of alternative job opportunities may be cited as the main reasons for disguised unemployment in India.
 - **Note:**
 - ✓ **Casual Unemployment:** When a person is employed on a day-to-day basis, casual unemployment may occur due to short-term contracts, shortage of raw materials, fall in demand, change of ownership, etc.
 - ✓ **Chronic Unemployment:** If unemployment continues to be a long-term feature of a country, it is called chronic unemployment. The rapid growth of the population and inadequate level of economic development on account of the vicious circle of poverty are the main causes of chronic unemployment.

Q 9.A

- **Statement 1 is correct and 2 is not correct:** A Participatory Note (PN or P-Note) is a **derivative instrument issued in foreign jurisdictions, by a SEBI registered Foreign Institutional Investor (FII) or its sub-accounts or one of its associates, against underlying Indian securities.** The underlying Indian security instrument may be equity, debt, derivatives or may even be an index. Further, a basket of securities from different jurisdictions can also be constructed in which a portion of the underlying securities is Indian securities or indices.
- **Being derivative instruments and freely tradable, PNs can be easily transferred,** creating multiple layers, thereby obfuscating the real beneficial owner. It is in this respect, that concerns have been raised about the misuse of P-Notes for money laundering and terror financing.
- **Derivatives**
 - A derivative is a financial security with a value that is reliant upon or derived from an underlying asset or group of assets. Its price is determined by fluctuations in the underlying asset. The most common underlying assets include stocks, bonds, commodities, currencies, interest rates and market indexes.

Q 10.B

- **Cash Reserve Ratio (CRR) is the average daily balance that a bank is required to maintain with the Reserve Bank** as a percent of its net demand and time liabilities (NDTL) as of the last Friday of the second preceding fortnight that the Reserve Bank may notify from time to time in the Official Gazette.
- Cash Reserve Ratio (CRR) = Percentage of deposits which a bank must keep as cash reserves with the bank.
- **CRR is one of the monetary policy tools that the RBI uses to control inflation.** During high inflation in the economy, RBI increases the CRR to lower the bank's loanable funds. Thus, **when banks are required to deposit more cash with the RBI the total loanable funds with the banks will reduce.** The less availability of funds with the banks will lead to an increase in the interest rates charged by the Banks. **Hence, option (b) is the correct answer.**
- The rise in **interest rates decreases the liquidity** in the market which further **seeks to reduce the aggregate demand** and thereby inflation in the economy. **Hence, options (a) and (c) are not correct.**
- A high-interest rate by the banks is likely to attract households to save more money with banks. Thus an **increase in CRR is likely to increase household savings** with the banks. **Hence, option (d) is not correct.**

Q 11.C

- **The Phillips curve** is an economic theory that inflation and unemployment have a stable and inverse relationship. Higher inflation is associated with lower unemployment and vice versa. **Hence option (c) is the correct answer.**
 - The concept behind the Phillips curve states the change in unemployment within an economy has a predictable effect on price inflation. The inverse relationship between unemployment and inflation is depicted as a downward sloping, concave curve, with inflation on the Y-axis and unemployment on the X-axis. Increasing inflation decreases unemployment, and vice versa. Alternatively, a focus on decreasing unemployment also increases inflation, and vice versa.
- **Engel's Law** is an economic theory put forth in 1857 by Ernst Engel, a German statistician. It states that the percentage of income allocated for food purchases decreases as a household's income rises, while the percentage spent on other things (such as education and recreation) increases.
- **Kuznets curve** graphs the hypothesis that as an economy develops, market forces first increase and then decrease economic inequality. The hypothesis was first advanced by economist Simon Kuznets in the 1950s and '60s.
- **Laffer curve** describes higher tax rates would increase revenue, but at some point further increases in tax rates would cause revenue to fall, for instance by discouraging people from working. The curve became the basis of supply-side economics.

Q 12.C

- **Managed Floating Exchange Rate:** Without any formal international agreement, the world has moved on to what can be best described as a managed floating exchange rate system. **India is having this type of exchange rate system. This system is also known as 'dirty floating'. It is a mixture of a flexible exchange rate system (the floating part) and a fixed rate system (the managed part).**
- In this hybrid exchange rate system, **the exchange rate is basically determined in the foreign exchange market through the operation of market forces. Market forces mean the selling and buying activities by various individuals and institutions.** So far, the managed floating exchange rate system is similar to the flexible exchange rate system. But during extreme fluctuations, **the central bank under a managed floating exchange rate system (like the RBI) intervenes in the foreign exchange market. The objective of this intervention is to minimize the fluctuation in the exchange rate of the rupee.** Since, the exchange rate is basically determined by market forces, the upward and downward movements in the value of the rupee are appreciation and depreciation. **Hence statement 1 is correct and statement 2 is correct.**

Q 13.B

- Personal income is part of the National income which is received by households. By subdividing National income into smaller categories, we can understand it better.
- First, let us note that out of NI, which is earned by the firms and government enterprises, a part of the profit is not distributed among the factors of production. This is called Undistributed Profits (UP). We have to deduct UP from NI to arrive at PI, since UP does not accrue to the households. Similarly, Corporate Tax, which is imposed on the earnings made by the firms, will also have to be deducted from the NI, since it does not accrue to the households.
- On the other hand, the households do receive interest payments from private firms or the government on past loans advanced by them. And households may have to pay interest to the firms and the government as well, in case they had borrowed money from either. So, we have to deduct the net interest paid by the households to the firms and government. The households receive transfer payments from the government and firms (pensions, scholarships, prizes, for example) which have to be added to calculate the Personal Income of the households.
 - **Thus, Personal Income (PI) \equiv NI – Undistributed profits – Net interest payments made by households – Corporate tax + Transfer payments to the households from the government and firms.**
- **However, even PI is not the income over which the households have a complete say. They have to pay taxes from PI. If we deduct the Personal Tax Payments (income tax, for example) and Non-tax Payments (such as fines) from PI, we obtain what is known as Personal Disposable Income.**
 - **Personal Disposable Income (PDI) \equiv PI – Personal tax payments – Non-tax payments. Hence, option (b) is the correct answer.**
- Personal Disposable Income is part of the aggregate income which belongs to the households. They may decide to consume a part of it and save the rest.

Q 14.D

- **Deflation is a general decline in prices for goods and services**, typically associated with a contraction in the supply of money and credit in the economy. During deflation, the purchasing power of currency rises over time. **Hence statement 1 is not correct.**
 - Deflation causes the nominal costs of capital, labor, goods, and services to fall, though their relative prices may be unchanged.
 - By definition, monetary deflation can only be caused by a decrease in the supply of money or financial instruments redeemable in money. Reduced investment spending by the government or individuals may also lead to this situation.
 - Deflation leads to a problem of increased unemployment due to slack in demand.
- **Disinflation is a temporary slowing of the pace of price inflation** and is used to describe instances when the inflation rate has reduced marginally over the short term. **Hence statement 2 is not correct.**
 - Unlike inflation and deflation, which refer to the direction of prices, disinflation refers to the rate of change in the rate of inflation.
 - A healthy amount of disinflation is necessary since it prevents the economy from overheating.
- Deflation is represented as a negative growth rate, such as -1%, while disinflation is shown as a change in the inflation rate, say, from 3% one year to 2% the next. Disinflation is considered the opposite of reflation, which occurs when a government stimulates an economy by increasing the money supply.

Q 15.A

- The Gross Domestic Product (GDP) deflator is a measure of general price inflation. It is calculated by dividing nominal GDP by real GDP and then multiplying by 100. Nominal GDP is the market value of goods and services produced in an economy, unadjusted for inflation (It is the GDP measured at current prices). Real GDP is nominal GDP, adjusted for inflation to reflect changes in real output (It is the GDP measured at constant prices).
 - $\text{GDP Deflator} = (\text{Nominal GDP} / \text{Real GDP}) \times 100$.
- There are other measures of inflation too like Consumer Price Index (CPI) and Wholesale Price Index (or WPI); however, the GDP deflator is a much broader and more comprehensive measure. **Since Gross Domestic Product is an aggregate measure of production, being the sum of all final uses of goods and services (fewer imports), the GDP deflator reflects the prices of all domestically produced goods and services in the economy** whereas, other measures like CPI and WPI are based on a limited basket of goods and services, thereby not representing the entire economy (the basket of goods is changed to accommodate changes in consumption patterns but after a considerable period of time). Another important distinction is that the basket of WPI (at present) has no representation of the services sector. The GDP deflator also includes the prices of investment goods, government services, and exports, and excludes the price of imports. Changes in consumption patterns or the introduction of new goods and services or structural transformation are automatically reflected in the deflator which is not the case with other inflation measures. **Hence, statement 1 is correct.**
- **However, WPI and CPI are available on a monthly basis whereas deflator comes with a lag (yearly or quarterly after quarterly GDP data is released). Hence, the monthly change in inflation cannot be tracked using a GDP deflator, limiting its usefulness.**
- **The Ministry of Statistics and Programme Implementation (MOSPI) comes out with a GDP deflator in National Accounts Statistics as price indices. The base of the GDP deflator is revised when the base of the GDP series is changed. Hence, statement 2 is not correct.**

Q 16.B

- Under the **WTO Agreement on Agriculture (AoA)**, domestic agri-subsidies are classified into three categories; green, blue and amber. Under WTO principles, "amber box" subsidies create trade distortions because they encourage excessive production through farm subsidies to fertilizers, seeds, electricity, and irrigation.
- They are also called as Aggregate Measure of Support. As per the WTO norms, the AMS can be given up to 10 % of a country's agricultural GDP (at 1986-88 prices) in the case of developing countries. On the other hand, the limit is 5% for a developed economy. This limit is called the *de minimis* level of support. **It is thus minimal amounts of domestic support that are allowed even though they distort trade — up to 5% of the value of production for developed countries, 10% for developing countries.**
- **Hence option (b) is the correct answer.**

Q 17.D

- **Sources of Data on Unemployment:** The data regarding unemployment can come from four potential sources viz. Household Surveys; Enterprise Surveys; Administrative Data and Data from Government Schemes.
 - **Household Surveys:** Currently, there are three datasets on household surveys as follows:
 - ✓ Employment-Unemployment Survey of NSSO under MOPSI
 - ✓ Annual Labour Force Survey by MoLE
 - ✓ Population/census data from the Office of the Registrar General & Census Commissioner and Data from registration with Employment Exchanges. **Hence option (d) is the correct answer.**
 - **Annual Labour Force Survey (Labour Bureau)**
 - ✓ To obtain more regular data on the labour force, the Labour Bureau under MoLE started conducting the Annual Labour Force Survey in 2009-10. Four more surveys have been conducted since then. The most recent one was conducted during 2015-16. The problem with this survey is that it collects data only for a part of a year and is unable to catch the information covering the entire year. Further, while the EUS covers the entire population, this survey reports data only for the population aged 15 and above.
 - **Population Census**
 - ✓ Population Census collects data on main, marginal and non-workers. However, since census data comes every 10 years, these figures hardly get any attention.

Q 18.B

- One of the core functions of the Central bank is to issue the currency of the country. **This currency issued by the central bank can be held by the public or by commercial banks and is called the 'high-powered money' or 'reserve money' or 'monetary base' as it acts as a basis for credit creation.**
- **High high-powered money is also defined as the total liability of the monetary authority of the country (RBI).** It consists of currency (notes and coins in circulation with the public and vault cash of commercial banks) and deposits held by the Government of India and commercial banks with RBI. If a member of the public produces a currency note to RBI the latter must pay her value equal to the figure printed on the note. Similarly, the deposits are also refundable by RBI on demand from deposit-holders. These items are claims that the general public, government, or banks have on RBI and hence are considered to be the liability of RBI. **Hence, option (b) is the correct answer.**
- High-powered money is the base for the expansion of Bank deposits and the creation of a money supply. The supply of money varies directly with changes in the monetary base and inversely with the currency and reserve ratios.
- The **amount of money that banks generate with deposits** by the public is called a **Money Multiplier**.

Q 19.D

- **Recently, The Centre for Social and Economic Progress (CSEP) in its report cited concerns about poor critical mineral supply chain management in India.**
- **Critical minerals** refer to mineral resources, both primary and processed, which are **essential inputs in the production process** of an economy, and **whose supplies are likely to be disrupted** due to the risks of **non-availability or unaffordable price spikes**. They are important to **support military, industrial, or commercial purposes** that are essential to the economy, defense, medicine, or infrastructure.
- Minerals such as **antimony, cobalt, gallium, graphite, lithium, nickel, niobium, and strontium are among the 22 assessed to be critical for India**. Many of these are required to meet the manufacturing needs of green technologies, high-tech equipment, aviation, and national defense. **Hence, option (d) is the correct answer.**

Q 20.B

- **Most-favoured-nation (MFN): Under the WTO agreements,** countries cannot normally discriminate between their trading partners. Grant someone a special favour (such as a lower customs duty rate for one of their products) and you have to do the same for all other WTO members. A most-favored-nation (MFN) clause requires a **country to provide any concessions, privileges, or immunities granted to one nation in a trade agreement to all other World Trade Organization member countries**. Although its name implies favoritism toward another nation, it denotes the equal treatment of all countries. **Hence option (b) is the correct answer**

- **Equal treatment of imported and locally produced goods** after foreign goods enter the domestic market is a clause under WTO's another principle known as **National Treatment: Treating foreigners and locals equally.**

Q 21.D

- **Recent context: India started 'Operation Kaveri' to evacuate its nationals owing to the Current Crisis in Sudan. Around 3,000 Indians were stuck in various parts of Sudan, including capital Khartoum and in distant provinces like Darfur. Hence option (d) is the correct answer.**
- Operation Kaveri is a codename for India's evacuation effort to bring back its citizens stranded in Sudan amid intense fighting between the army and a rival paramilitary force there.
- The operation involves the deployment of the Indian Navy's INS Sumedha, a stealth offshore patrol vessel, and two Indian Air Force C-130J special operations aircraft on standby in Jeddah.
- There are about 2,800 Indian nationals in Sudan, and there is also a settled Indian community of about 1,200 in the country.
- **What is the current crisis in Sudan.**
 - The conflict in Sudan has its roots in the overthrowing of long-serving President Omar al-Bashir by military generals in April 2019, following widespread protests.
 - This led to an agreement between the military and protesters, under which a power-sharing body called the Sovereignty Council was established to lead Sudan to elections at the end of 2023.
 - However, the military overthrew the transitional government led by Abdalla Hamdok in October 2021, with Burhan becoming the de-facto leader of the country and Dagalo his second-in-command.
 - Soon after the 2021 coup, a power struggle between two military (SAF) and paramilitary (RSF) generals arose, interrupting a plan to transition to elections.
 - A preliminary deal was reached in December 2021 for a political transition, but negotiations hit a roadblock over the integration of the paramilitary Rapid Support Forces (RSF) with the Sudanese Armed Forces (SAF), due to disagreements over the timetable and security sector reforms.
 - Tensions escalated over the control of resources and RSF integration, leading to clashes.
 - There was disagreement over how the 10,000-strong RSF should be integrated into the army, and which authority should oversee that process.
 - Also, Dagalo (RSF general) wanted to delay the integration for 10 years but the army said it would take place in the next two years.
- The RSF is a group, evolved from Janjaweed militias, which fought in a conflict in the 2000s in the Darfur region in West Sudan nearing the Border of Chad. Over time, the militia grew and made into the RSF in 2013, and its forces were used as border guards in particular.

Q 22.C

- **Recently, World's second-deepest blue hole (the deepest is Dragon Hole in the South China Sea) was discovered in Chetumal Bay, off the coast of the Yucatan Peninsula in Mexico.**
- **Blue holes are large, undersea vertical caves or sinkholes** found in coastal regions. Many contain a high diversity of plant and marine life, including corals, sea turtles, and sharks.
- Blue Holes are **found on coastal karst platforms** around the world. It is typically **formed out of eroded limestone**, with an open rounded mouth on the sea floor. **Hence, statement 1 is correct.**
- They are believed to be **formed during the latter ice ages around 11,000 years ago** because of the erosion of limestone terrains. **Hence, statement 2 is correct.**
- The **world's deepest known deep hole was discovered in the South China Sea** in 2016 and is known as the **Dragon Hole**. As per the records, it's more than 980 ft deep.

Q 23.D

- The Reserve Bank of India began operations on April 01, 1935, in accordance with the provisions of the Reserve Bank of India Act, 1934. The Preamble of the Reserve Bank of India describes the basic functions of the Reserve Bank as: "to regulate the issue of Bank notes and keeping of reserves with a view to securing monetary stability in India and generally to operate the currency and credit system of the country to its advantage; to have a modern monetary policy framework to meet the challenge of an increasingly complex economy, to maintain price stability while keeping in mind the objective of growth."
- The main Functions of the RBI are:
 - **Monetary Authority:** The RBI Formulates, implements, and monitors the monetary policy with the objective of **maintaining price stability and financial stability** while keeping in mind the objective of growth.

- **Regulator and supervisor of the financial system:** RBI prescribes broad parameters of banking operations within which the country's banking and financial system functions with the objective of maintaining public confidence in the system, protecting depositors' interests, and providing cost-effective banking services to the public.
- **Manager of Foreign Exchange:** The RBI manages the Foreign Exchange Management Act with the objective to facilitate external trade and payment and promote orderly development and maintenance of the foreign exchange market in India.
- **The issuer of currency:** The RBI Issues, exchanges and destroys currency notes as well as puts into circulation coins minted by the Government of India with the objective to give the public an adequate quantity of supplies of currency notes and coins in good quality.
- **Developmental role:** The RBI Performs a wide range of promotional functions to support national objectives.
- **Regulator and Supervisor of Payment and Settlement Systems:** The RBI Introduces and upgrades safe and efficient modes of payment systems in the country to meet the requirements of the public at large. Its objective is to maintain public confidence in the payment and settlement system.
- **Hence option (d) is the correct answer.**

Q 24.B

- The RBI controls the money supply in the economy in various ways. The tools used by the Central bank to control money supply can be quantitative or qualitative. Quantitative tools control the extent of money supply by changing the CRR and SLR, or bank rate or open market operations. **Hence option 3 is not correct.**
- Qualitative tools include persuasion by the Central bank in order to make commercial banks discourage or encourage lending which is done through moral suasion, margin requirement, etc. **Hence options 1 and 2 are correct.**

Q 25.B

- **Primary deficit** is fiscal deficit of the current year minus interest payments on previous borrowings. While fiscal deficit represents the government's total borrowing including interest payments, primary deficit shows the amount of borrowing excluding interest payments. **Hence option (b) is the correct answer.**
- It shows the amount of government borrowings specifically to meet the expenses by removing the interest payments. Therefore, a zero Primary Deficit means the need for borrowing to meet interest payments.
- **Fiscal Deficit:** The excess of total expenditure over total receipts excluding borrowings is called fiscal deficit. In other words, the fiscal deficit gives the amount needed by the government to meet its expenses. Thus a large fiscal deficit means a large amount of borrowings.
- **Revenue Deficit:** Revenue deficit is the excess of its total revenue expenditure to its total revenue receipts. Revenue deficit is only related to revenue expenditure and revenue receipts of the government.
- **Effective Revenue Deficit:** It is the difference between revenue deficit and grants for the creation of capital assets.

Q 26.C

- **Currency Swap Agreement:**
 - The currency swap agreement between the two countries is entered between the Central Banks of the two countries. **Hence, statement 1 is correct.**
 - One country exchanges its national currency for that of another or even a third one. **Hence, statement 2 is correct.**
 - Examples: India and Japan signed a currency swap agreement in 2018 worth \$ 75 billion. India can/will get Yen(or dollars) from Japan worth a max of \$ 75 billion and Japan will get equivalent Indian Rupees as per the market exchange rate at the time of transaction.
 - In July 2020, India and Sri Lanka signed a currency swap agreement worth \$ 400 million in which India will give dollars to SL and in return India will get a 'Sri Lankan Rupee'.

Q 27.D

- **Air Exercises With Quad Countries:**
 - **Cope India** began in 2004 as a fighter training exercise held at Air Station Gwalior, India. The exercise has evolved to incorporate subject matter expert exchanges, air mobility training, airdrop training and large-force exercises, in addition to fighter-training exercises.

- The exercise showcases **U.S. and India's** efforts and commitment to a free and open Indo-Pacific region. Exercise Cope India 23 was held at Air Force Stations Arjan Singh (Panagarh), Kalaikunda and Agra. **Hence pair 1 is correctly matched.**
- The inaugural edition of the bilateral air exercise '**Veer Guardian 2023**' between the **Indian Air Force (IAF) and Japan Air Self-Defence Force (JASDF)** concluded in Japan, on 26 January 2023. The JASDF participated in the exercise with its F-2 and F-15 aircraft, while the IAF contingent participated with the Su-30 MKI aircraft. The IAF fighter contingent was complemented by one IL-78 Flight Refueling Aircraft and two C-17 Globemaster strategic airlift transport aircraft.
 - ✓ During the joint training spanning 16 days, the two Air Forces engaged in complex and comprehensive aerial manoeuvres in multiple simulated operational scenarios. The exercise involved precise planning and skillful execution by both air forces. IAF and JASDF engaged in air combat maneuvering, interception, and air defence missions, both in Visual and Beyond Visual Range settings. Aircrew of the two participating Air Forces also flew in each other's fighter aircraft to gain a deeper understanding of each other's operating philosophies. **Hence pair 2 is correctly matched.**
- **Exercise Pitch Black 22** was hosted by the **Royal Australian Air Force** at its Darwin Air Base. Spanning over three weeks, the exercise saw the participation of 17 Air Forces and over 2500 military personnel. The IAF contingent included four Su-30 MKI & two C-17 aircraft. The participating forces took part in various multi-aircraft combat drills by day & night, simulating complex aerial scenarios, involving large formations.
 - ✓ The exercise provided an opportunity for the air forces to share best practices and experiences. The event witnessed a collaborative spirit that has led to a better understanding of each other's capabilities & a bonhomie that will lead to enduring ties between the participating nations. **Hence pair 3 is correctly matched.**

Q 28.A

- The **Basel Accords** are a set of agreements set by the Basel Committee on Bank Supervision (BCBS), **which provides recommendations on banking regulations in regard to capital risk, market risk, and operational risk.** The purpose of the accords is to ensure that financial institutions have enough capital on account to meet obligations and absorb unexpected losses. The Basel Committee has issued three sets of regulations which are known as Basel-I, II, and III.
- In Basel-I norms the capital adequacy ratio was agreed upon—a requirement was imposed upon the banks to maintain a certain amount of free capital to their assets cushion against probable losses in investments and loans.
- The capital adequacy ratio is the percentage of total capital to the total risk—weighted asset. CAR, a measure of a bank's capital, is expressed as a percentage of a bank's risk-weighted credit exposures: $\text{CAR} = \frac{\text{Total of Tier 1 \& Tier 2 capitals}}{\text{Risk-Weighted Assets}}$.
- The **Reserve Bank of India decided in April 1992** to introduce a risk-asset ratio system for banks (including foreign banks) in India as a capital adequacy measure in line with the Capital Adequacy Norms prescribed by Basel Committee. It was **aimed at improving the banking sector's ability to absorb shocks arising from financial and economic stress.**
- Market risk refers to the risk to a bank resulting from movements in market prices in particular changes in interest rates, foreign exchange rates, and equity and commodity prices. In simpler terms, it may be defined as the possibility of loss to a bank caused by changes in the market variables.
- Credit risk is most simply defined as the potential that a bank's borrower or counterparty may fail to meet its obligations in accordance with agreed terms.
- Currently, Basel III norms are implemented in India with effect from April 1, 2013.
- **Hence option (a) is the correct answer.**

Q 29.C

- The **Ministry of Jal Shakti has released the report of India's first water bodies census, a comprehensive database of ponds, tanks, lakes, and reservoirs in the country. The census was conducted in 2018-19, and enumerated more than 2.4 million water bodies across all states and Union Territories.**
- The Water Bodies: First Census Report considers "all natural or man-made units bounded on all sides with some or no masonry work used for storing water for irrigation or other purposes (e.g. industrial, pisciculture, domestic/ drinking, recreation, religious, groundwater recharge etc.)" as water bodies. The water bodies "are usually of various types known by different names like tank, reservoirs, ponds etc."

- As per the report, West Bengal's South 24 Pargana has been ranked as the district having the highest (3.55 lakh) number of water bodies across the country. The district is followed by Andhra Pradesh's Ananthapur (50,537) and West Bengal's Howrah (37,301).
- So did the census cover all water bodies that fit this definition? No. Seven specific types of water bodies were excluded from the count. They were: 1) oceans and lagoons; 2) rivers, streams, springs, waterfalls, canals, etc. which are free-flowing, without any bounded storage of water; 3) swimming pools; 4) covered water tanks created for a specific purpose by a family or household for their own consumption; 5) a water tank constructed by a factory owner for consumption of water as raw material or consumable; 6) temporary water bodies created by digging for mining, brick kilns, and construction activities, which may get filled during the rainy season; and 7) pucca open water tanks created only for cattle to drink water.
- The census found that 1.6% of enumerated water bodies — 38,496 out of 24,24,540 — had been encroached upon. Uttar Pradesh accounted for almost 40% (15,301) of water bodies under encroachment, followed by Tamil Nadu (8,366) and Andhra Pradesh (3,920). No encroachment was reported from West Bengal, Sikkim, Arunachal Pradesh, and Chandigarh.
- The Jal Shakti Ministry is working on an ambitious plan to deploy a vast network of groundwater sensors that will continuously relay information on groundwater levels as well as the degree of contamination down to the taluk level. Currently, such information is only measured a handful of times a year and communicated via reports of the Central Groundwater Board.
- **Under the new initiative, around 16,000-17,000 digital water level recorders will be connected to piezometers in the wells. Piezometers measure groundwater levels, the recorders will transmit the information digitally. Hence, statement 1 is correct.**
- The CGWB is in charge of the National Aquifer Mapping Program (NAQUIM), that as of March has mapped the country's aquifers at a resolution of 1:50000 and – under the second phase of the programme – expects to improve the resolution by five times in the country. So far, an area of 25.15 lakh square km has been covered under the NAQUIM studies.
- In the latest Ground Water Resource Assessment-2022, the average stage of groundwater extraction for the country as a whole works out to be about 60.08%. Anything above 70% is considered “critical” though there are regions in Punjab, Haryana, Delhi and Rajasthan with groundwater blocks with over 100% extraction.
- **Groundwater contamination, the CGWB says, is mostly “geogenic” (natural) and hasn't significantly changed over the years. However, nitrate contamination – a result of the use of nitrogenous fertilisers—has been observed. Sections of nearly 409 districts have been confirmed with fluoride contamination and parts of 209 districts have noted arsenic contamination. Hence, statement 2 is correct.**

Q 30.D

- **Expert group constituted by the Planning Commission and, chaired by Suresh Tendulkar, was constituted to review methodology for poverty estimation and to address the following shortcomings of the previous methods:**
 - **Obsolete Consumption Pattern:** Consumption patterns were linked to the 1973-74 poverty line baskets (PLBs) of goods and services, whereas there were significant changes in the consumption patterns of the poor since that time, which were not reflected in the poverty estimates.
 - **Inflation Adjustment:** There were issues with the adjustment of prices for inflation, both spatially (across regions) and temporally (across time).
 - **Health and Education Expenditure:** Earlier poverty lines assumed that health and education would be provided by the state and formulated poverty lines accordingly.
- **Recommendations:**
 - **Shift from Calorie Consumption based Poverty Estimation:** It based its calculations on the consumption of the items like cereal, pulses, milk, edible oil, non-vegetarian items, vegetables, fresh fruits, dry fruits, sugar, salt & spices, other food, intoxicants, fuel, clothing, footwear, education, medical (non-institutional and institutional), entertainment, personal & toilet goods. **Hence option 1 is correct.**
 - **Uniform Poverty line Basket:** Unlike Alagh committee (which relied on separate PLB for rural and urban areas), Tendulkar Committee computed new poverty lines for rural and urban areas of each state based on the uniform poverty line basket and found that all India poverty line (2004-05) was:
 - ✓ ₹446.68 per capita per month in rural areas
 - ✓ ₹578.80 per capita per month in urban areas. **Hence option 2 is correct.**

- **Private Expenditure:** Incorporation of private expenditure on health and education while estimating poverty. **Hence option 4 is correct.**
- **Price Adjustment Procedure:** The Committee also recommended a new method of updating poverty lines, adjusting for changes in prices and patterns of consumption (to correct spatial and temporal issues with price adjustment), using the consumption basket of people close to the poverty line. **Hence option 3 is correct.**
- **Mixed Reference Period:** The Committee recommended using Mixed Reference Period based estimates, as opposed to Uniform Reference Period based estimates that were used in earlier methods for estimating poverty.
- Tendulkar committee computed poverty lines for 2004-05 at a level that was equivalent, in Purchasing Power Parity (PPP) terms to Rs 33 per day.
 - Purchasing Power Parity: The PPP model refers to a method used to work out the money that would be needed to purchase the same goods and services in two countries.

Q 31.D

- Money supply, like money demand, is a stock variable. The total stock of money in circulation among the public at a particular point of time is called the money supply.
- **RBI publishes figures for four alternative measures of money supply, viz. M1, M2, M3 and M4.** They are defined as follows
 $M1 = CU + DD$
 $M2 = M1 + \text{Savings deposits with Post Office savings banks}$
 $M3 = M1 + \text{Net time deposits of commercial banks}$
 $M4 = M3 + \text{Total deposits with Post Office savings organizations (excluding National Savings Certificates)}$ where CU is currency (notes plus coins) held by the public and DD is net demand deposits held by commercial banks.
- The word 'net' implies that only deposits of the public held by the banks are to be included in the money supply. The interbank deposits, which a commercial bank holds in other commercial banks, are not to be regarded as part of the money supply. M1 and M2 are known as narrow money. M3 and M4 are known as broad money.
- These measures are in decreasing order of liquidity. M1 is the most liquid and easiest for transactions whereas M4 is the least liquid of all. M3 is the most commonly used measure of money supply. It is also known as aggregate monetary resources. **Hence both statements 1 and 2 are not correct.**

Q 32.C

- GDP is the market value of all final goods and services produced within a domestic territory of a country measured in a year. There are three ways to calculate the national income; namely **product method, expenditure method, and income method.**
 - **The Product or Value-Added Method:** In the product method, the aggregate annual value of goods and services produced (if a year is the unit of time) is calculated. If we sum the gross value added of all the firms of the economy in a year, we get a measure of the value of the aggregate amount of goods and services produced by the economy in a year (just as we had done in the wheat-bread example). Such an estimate is called Gross Domestic Product (GDP).
 - **Expenditure Method:** An alternative way to calculate the GDP is by looking at the demand side of the products. This method is referred to as the expenditure method.
 - The expenditure approach is the most commonly used GDP formula, which is based on the money spent by various groups that participate in the economy. **$GDP = C + G + I + NX$;**
 - ✓ C = consumption or all private consumer spending within a country's economy, including, durable goods (items with a lifespan greater than three years), nondurable goods (food & clothing), and services.
 - ✓ G = total government expenditures, including salaries of government employees, road construction/repair, public schools, and military expenditures.
 - ✓ I = sum of a country's investments spent on capital equipment, inventories, and housing.
 - ✓ NX = net exports or a country's total exports less total imports.
 - **Income Method:** As we mentioned in the beginning, the sum of final expenditures in the economy must be equal to the incomes received by all the factors of production taken together (final expenditure is the spending on final goods, it does not include spending on intermediate goods). Total National Income – the sum of all wages, rent, interest, and profits.
- **Balance of Payment:** In international economics, the balance of payments of a country is the difference between all money flowing into the country in a particular period of time and the outflow of money to the rest of the world. **Balance of Payment is primarily an indicator of an economy's link with the outside world and is not used as a method to calculate the national income. Hence option (c) is the correct answer.**

Q 33.D

- A significant part of the current output of capital goods goes into maintaining or replacing part of the existing stock of capital goods. This is because the already existing capital stock suffers wear and tear and needs maintenance and replacement. A part of the capital goods produced this year goes for the replacement of existing capital goods and is not an addition to the stock of capital goods already existing and its value needs to be subtracted from gross investment for arriving at the measure for net investment. This deletion, which is made from the value of a gross investment in order to accommodate the regular wear and tear of capital, is called depreciation. Hence, statement 1 is correct.
- So new addition to the capital stock in an economy is measured by net investment or new capital formation, which is expressed as:
 - **Net Investment = Gross investment – Depreciation**
- **Depreciation is an accounting concept. No real expenditure may have actually been incurred each year yet depreciation is annually accounted for. In an economy with thousands of enterprises with widely varying periods of life of their equipment, in any particular year, some enterprises are actually making the bulk replacement spending.** Thus, we can realistically assume that there will be a steady flow of actual replacement spending which will more or less match the amount of annual depreciation being accounted for in that economy. Hence, statement 2 is correct.
- **Depreciation does not take into account unexpected or sudden destruction or disuse of capital as can happen with accidents, natural calamities, or other such extraneous circumstances. Hence, statement 3 is not correct.**

Q 34.C

- GVA is the value of total output produced in the economy less the value of intermediate consumption (the output which is used in the production of output further, and not used in final consumption). It is important to understand the concepts such as basic prices, factor cost, and market price to understand GVA.
- The distinction between factor cost, basic prices, and market prices are based on the distinction between net production taxes (production taxes fewer production subsidies) and net product taxes (product taxes less product subsidies).
- Production taxes and subsidies are paid or received in relation to production and are independent of the volume of production such as land revenues, stamp and registration fees. Product taxes and subsidies, on the other hand, are paid or received per unit or product, e.g., excise tax, service tax, export, and import duties, etc. **Hence, statements 1 and 2 are correct.**
- Factor cost includes only the payment to factors of production, it does not include any tax. In order to arrive at the market prices, we have to add to the factor cost the total indirect taxes less total subsidies. The basic prices lie in between: they include production taxes (fewer production subsidies) but not product taxes (fewer product subsidies). Therefore in order to arrive at market prices we have to add product taxes (less product subsidies) to the basic prices.

Q 35.C

- Marginal Standing Facility (MSF) is a new scheme **announced by the Reserve Bank of India (RBI) in its Monetary Policy (2011-12)** and refers to the penal rate at which banks can borrow money from the central bank over and above what is available to them through the LAF window. **Hence statement 3 is not correct.**
- **MSF, being a penal rate, is always fixed above the repo rate.** The MSF would be the last resort for banks once they exhaust all borrowing options including the liquidity adjustment facility by pledging government securities, where the rates are lower in comparison with the MSF. **Hence statement 2 is correct.**
- The MSF would be a penal rate for banks and the banks can borrow funds by pledging government securities within the limits of the statutory liquidity ratio. The scheme has been introduced by RBI with the main aim of reducing volatility in the overnight lending rates in the inter-bank market and enabling smooth monetary transmission in the financial system. **Hence statement 1 is correct.**

Q 36.A

- Financial markets comprise both capital and money markets. **Capital markets refer to markets that trade financial instruments with maturities longer than one year.** Money markets trade debt securities or instruments of maturities of a year or less.

- In the simplest terms, capital markets can be defined as a marketplace where buyers and sellers can engage in the trade of long-term financial securities. Long-term here means for a period greater than one year.
- **Capital Markets vis-a-vis Commercial Banks**
 - Intermediation between lenders (or savers) and borrowers (or users of funds) is a fundamental function of the financial system in an economy and is performed primarily by commercial banks and primary capital markets.
 - The key distinction is that capital markets **provide direct funding** from saver to user via the issuance of securities, while bank intermediation involves indirect funding with banks as the go-between connecting the saver and user. **Hence, statement 1 is correct.**
- **The following characteristics are typical of Capital Markets:**
 - The capital market is the market for securities, where companies and governments can raise long-term funds.
 - The market in which corporate equity and longer-term debt securities maturing in more than one year are issued and traded.
 - The capital market is the market for long-term debt equity shares. In this market, capital funds comprising both equity and debt are issued and traded. **Hence, statement 2 is not correct.**
 - The market in which long-term securities such as stocks and bonds are bought and sold.
 - The capital market comprises financial securities, government securities, and semi-government securities. The capital market concerns two broad types of securities traded - debts and equity. Buying stock allows investors to gain an equity interest in the company and become an owner of the company.

Q 37.D

- The **SDR basket of currencies includes the US dollar, Euro, Japanese yen, pound sterling and the Chinese renminbi (included in 2016).**
- The SDR currency value is calculated daily (except on IMF holidays or whenever the IMF is closed for business) and the valuation basket is reviewed and adjusted every five years.
- Quota (the amount contributed to the IMF) of a country is denominated in SDRs. Members' voting power is related directly to their quotas.
- IMF makes the general SDR allocation to its members in proportion to their existing quotas in the IMF.
- **Hence option (d) is the correct answer.**

Q 38.D

- **Statutory Liquidity Ratio (SLR) refers to the minimum percentage of deposits that commercial banks are mandated to maintain as gold assets, cash, or government-approved securities, in their own vaults.** These deposits have to be maintained by the banks themselves and not with the Reserve Bank of India. By definition, the SLR is the ratio of a bank's liquid assets to their Net Demand and Time Liabilities (NDTL). The SLR is an essential instrument in the RBI's monetary policy that helps regulate the cash flow in the economy and ensures the bank's stability.
- As per the Reserve Bank of India **SLR norms are applicable to all Scheduled Commercial Banks (SCBs) (including Regional Rural Banks), Small Finance Banks (SFBs), Payments Banks, Local Area Banks (LABs), Primary (Urban) Co-operative Banks (UCBs), State Co-operative Banks (StCBs) and District Central Co-operative Banks (DCCBs).** Hence, option (d) is the correct answer.
- SLR is used by the RBI to control credit flow in the banks. In a way, SLR also makes commercial banks invest in government securities. Making banks invest a portion of their deposits in government securities also ensures the solvency of such banks.
- SLR is decided by the RBI from time to time. The maximum limit of SLR is 40% and the minimum limit is Zero. If the bank fails to control the required level of the statutory liquidity ratio, then it becomes responsible to pay a penalty to the Reserve Bank of India (RBI).

Q 39.A

- The Union Cabinet recently approved a project to build an **advanced gravitational-wave detector in Maharashtra** at an estimated cost of Rs 2,600 crore. The facility's construction is expected to be completed by 2030. By building it, "Indian S&T is expected to leap-frog in a number of cutting-edge frontiers of great national relevance, in particular quantum-sensing and metrology. It will come up in the Hingoli district, where land has been acquired to the tune of 174 acres.

- LIGO stands for "**Laser Interferometer Gravitational-wave Observatory**". It is the world's largest gravitational wave observatory and a marvel of precision engineering. Comprising two enormous laser interferometers located 3000 kilometers apart, LIGO exploits the physical properties of light and of space itself to detect and understand the origins of gravitational waves (GW). Currently, there are three operational gravitational wave observatories around the world - two in the United States (Hanford and Livingston), one in Italy (Virgo), and one in Japan (Kagra). For accurate detection, four comparable detectors need to be operated simultaneously across the globe.
- **The LIGO detectors consist of two 4-km-long vacuum chambers, arranged at right angles to each other, with mirrors at the end. The experiment works by releasing light rays simultaneously in both chambers.**
- Normally, the light should return at the same time in both chambers. However, if a gravitational wave passes through, one chamber gets elongated while the other gets squished, resulting in a phase difference in the returning light rays. Detecting this phase difference confirms the presence of a gravitational wave.
- Three things fundamentally distinguish LIGO from a stereotypical astronomical observatory:
 - LIGO is blind to the light from the Universe. Unlike optical or radio telescopes, LIGO does not see electromagnetic radiation (e.g., visible light, radio waves, microwaves). But it doesn't have to because gravitational waves are not part of the electromagnetic spectrum.
 - It doesn't need to focus on starlight or point at a particular part of the sky.
 - It is difficult for a single detector to make a discovery on its own.
- ✓ The **Large Hadron Collider (LHC)** is three things. First, it is large – so large that it's the world's largest science experiment. Second, it's a collider. It accelerates two beams of particles in opposite directions and smashes them head-on. Third, these particles are hadrons. The LHC, built by the European Organisation for Nuclear Research (CERN), is on the energy frontier of physics research, conducting experiments with highly energized particles.
- ✓ **Laser Interferometer Space Antenna (LISA)** is a space-based gravitational wave observatory building on the success of LISA Pathfinder and LIGO. Led by ESA, the LISA mission is a collaboration of ESA, NASA, and an international consortium of scientists. Gravitational waves were first theorized by Albert Einstein. They are created during events such as supermassive black hole mergers, or collisions between two black holes that are billion times bigger than our Sun. These collisions are so powerful that they create distortions in spacetime, known as gravitational waves. Studying gravitational waves gives enormous potential for discovering the parts of the universe that are invisible by other means, such as black holes, the Big Bang, and other, as yet unknown, objects. **Gravitational waves were first directly detected by the Laser Interferometer Gravitational-Wave Observatory (LIGO) in 2015.**
 - **Three types of detectors** have been designed to look for gravitational radiation, which is very weak. The changes of curvature of space-time would correspond to dilation in one direction and a contraction at right angles to that direction. One scheme, first tried out about 1960, employed a massive cylinder that might be set in mechanical oscillation by a gravitational signal. The authors of this apparatus argued that signals had been detected, but their claim was not substantiated.
 - In a second scheme, an optical interferometer is set up with freely suspended reflectors at the ends of long paths that are at right angles to each other. Shifts of interference fringes corresponding to an increase in the length of one arm and a decrease in the other would indicate the passage of gravitational waves. **One such interferometer is the Laser Interferometer Gravitational-Wave Observatory (LIGO), which consists of two interferometers with arm lengths of 4 km (2 miles), one in Hanford, Washington, and the other in Livingston, Louisiana.**
 - A third scheme, the **Evolved Laser Interferometer Space Antenna (eLISA)**, is planned that uses three separate, but not independent, interferometers installed in three spacecraft located at the corners of a triangle with sides of some 5 million km (3 million miles). A mission to test the technology for eLISA, LISA Pathfinder, was launched in 2015.
 - **LISA Pathfinder**, formerly Small Missions for Advanced Research in Technology-2, was an ESA spacecraft that was launched on 3 December 2015 onboard Vega flight VV06. The mission tested technologies needed for the Laser Interferometer Space Antenna, an ESA gravitational wave observatory planned to be launched in 2037. **Hence, option (a) is the correct answer.**

Q 40.D

- **Non-Tax Revenue:** Non-Tax Revenue is the recurring income that is earned from sources other than taxes by the government. They are the revenue receipts that are not generated by taxing the public. Some of the major sources of non-tax revenue are mentioned below:
 - **Interests** that the government receives through the loans provided by it to the state governments, UTs, private enterprises, and the general public are an important source of non-tax revenue.
 - **Power Supply Fees:** This includes fees received by the central power authority of any nation. In the case of India, this includes fees received by the Central Electricity Authority.
 - **Fees:** These are the charges that cover the cost of recurring services that are provided and imposed by the government. It is a compulsory contribution like a tax.
 - **License Fee:** It is a form of tax charged by the government and its allied entities for conducting an activity that can be anything such as opening a restaurant or operating a heavy vehicle.
 - **Fines and Penalties:** Fines are mostly used in the context of criminal law wherein a court of law will punish a person convicted of a crime by imposing a fine. Penalty, meanwhile, is used in both civil as well as criminal law. It includes both monetary and physical forms of punishment.
 - **Escheats:** Escheats is the transfer of estate assets or property to the government if an individual passes away without leaving a legally binding will or legal heirs.
 - Several grants are received by the government from various International Organisations and foreign governments. Such grants are not a fixed source of revenue and are generally received during a national crisis such as war, flood, etc.
 - **Forfeitures:** Forfeiture is the loss of any property without compensation as a result of defaulting on the obligations of a contract or a penalty for illegal conduct. Under the terms of a contract, forfeiture refers to the requirement by the defaulting party to give up ownership of an asset or cash flows from an asset, as compensation for the resulting losses to the other party.
 - **Interests:** It comprises of interests of loans and insurance given to the government for non-plan schemes and planned schemes and also interest on loans that have been advanced to Public Sector Enterprises or other statutory bodies.
 - **Fees for Communication Services:** This mainly includes the license fees from telecom operators on account of spectrum usage charges that licensed Telecom Service Providers pay to the government ministry that handles telecommunications. **Hence option (d) is the correct answer.**

Q 41.C

- Usually, there are two main sources of the government's income – revenue receipts and capital receipts. Revenue receipts comprise both tax and non-tax revenues while capital receipts consist of capital receipts and non-debt capital receipts.
- Non-debt creating capital receipts refer to those receipts of the government which lead to a decrease in assets, and not an increase in liabilities. Non-debt capital receipts, also known as NDCR, account for just 3% of the central government's total receipts.
- **Broadly, there are two kinds of non debt capital receipts:**
 - Recoveries of loans and advances and
 - Miscellaneous capital receipts
- **Recoveries of loans and advances: This kind of non debt capital receipts includes:**
 - Recovery of loans and advances from state governments and union territories with legislature
 - Recovery of loans given to foreign governments
 - Recovery of loans and advances from PSUs and other autonomous bodies
- **Miscellaneous Capital Receipt:** This includes proceeds from disinvestment in public sector undertakings. The government further classifies disinvestment proceeds into:
 - Disinvestment receipts
 - Strategic disinvestment
 - Listing of PSUs in stock markets and
 - Issue of bonus shares
- **Hence option (c) is the correct answer.**

Q 42.C

- **Types of Economies- Closed/Inward and Open/Outward:**
 - **Closed Economy:** In a closed economy, no external trade takes place. This means that there are no imports or exports. It indicates a self-sufficient, self-reliant economy primarily growing via its domestic sectors. Another term for a closed economy is autarky.

- It is said that India had a near-closed economy focusing more on self-development after the 1950s, running up to the 1980s, and finally opening its economy after the economic crisis of 1991.
- Open Economy: An open economy is one that trades with other nations in goods and services and also in financial assets.
- Hence, option (c) is the correct answer.

Q 43.B

- Recently, The demographic data from the United Nations Population Fund's (UNFPA) "State of World Population Report, 2023" titled '8 Billion Lives, Infinite Possibilities: The Case for Rights and Choices' was released.
- The UNFPA's 'The State of World Population Report, 2023', said India's population is projected to be 1,428.6 million while that of China's 1,425.7 million, a difference of 2.9 million by the mid of the year 2023. Hence, statement 1 is not correct.
- The UNFPA report said 25% of India's population is in the age group of 0-14, 18% in 10-19, 26% in 10-24, 68% in 15-64, and 7% above 65. Hence, statement 2 is correct.
- China is doing better than India in the context of life expectancy, which in the case of women is 82 and 76 that of men. The figures for India are 74 and 71, according to the report. Hence, statement 3 is not correct.

Q 44.A

- Recently, European Union Parliament approved Crypto Licensing, Funds Transfer Rules.
- Markets in Crypto Assets (MiCA) forms part of the European Union's (EU) broader digital financial package, which includes the Digital Operational Resilience Act and Pilot Regime on Distributed Ledger Technology. It aims to embrace innovation and new financial technologies while ensuring consumer protection and financial stability across the EU. Hence, statement 1 is correct.
- The MiCA legislation will apply to crypto assets including traditional cryptocurrencies like Bitcoin, Ethereum, and newer ones like stablecoins.
- MiCA will not regulate central bank digital currencies issued by the European Central Bank, nonfungible tokens (NFTs) and digital assets issued by national central banks of EU member countries. Hence, statement 2 is not correct.

Q 45.B

- Commercial banks are the other type of institutions that are a part of the money-creating system of the economy. Scheduled banks are banks that are listed in the 2nd schedule of the Reserve Bank of India Act, 1934. The Balance sheet is a record of the assets and liabilities of any firm/bank.
- Assets are things a firm owns or what a firm can claim from others. In the case of a bank, apart from buildings, furniture, etc., its assets are loans given to the public. Hence option 1 is correct.
- Another asset that a bank has is reserves (Cash Reserve Ratio). Reserves are deposits that commercial banks keep with the Central Bank, Reserve Bank of India (RBI) and its cash. These reserves are kept partly as cash and partly in the form of financial instruments (bonds and treasury bills) issued by the RBI. Hence option 4 is correct.
- Besides reserves with RBI, other classes of assets held by commercial banks are investments in Government Securities. Government securities are securities of both the central and state government including treasury bills, treasury deposit certificates, and postal obligations such as national plan certificates, and national savings certificates. Hence option 3 is correct.
- Liabilities for any firm are its debts or what it owes to others. For a bank, the main liability is the deposits that people keep with it. Liabilities for a bank = Total Deposits of the public held by banks. Hence option 2 is not correct.
- Hence option (b) is the correct answer.

Q 46.A

- Recently, Mircha' rice of Bihar's West Champaran has been awarded the GI tag. The size and shape of the grain appear like that of black pepper, hence it is known as Mircha or Marcha Rice.
- This rice is famous for its aroma, palatability and its aromatic chura (rice flakes) making qualities. The cooked rice is fluffy, non-sticky, sweet and easily digestible with a popcorn-like aroma.
- Gobindobhog rice and Tulaippanji rice belong to West Bengal, whereas, Joha rice belongs to Assam.
- Hence, option (a) is the correct answer.

Q 47.A

- While calculating GDP, if prices change, then there may be difficulties in comparing GDPs. If we measure the GDP of a country in two consecutive years and see that the figure for the GDP of the latter year is twice that of the previous year, we may conclude that the volume of production of the country has doubled. But it is possible that only prices of all goods and services have doubled between the two years whereas the production has remained constant.
- Therefore, in order to compare the GDP figures (and other macroeconomic variables) of different countries or to compare the GDP figures of the same country at different points of time, we cannot rely on GDPs evaluated at current market prices. For comparison, we take the help of real GDP. Real GDP is calculated in a way such that the goods and services are evaluated at some constant set of prices (or constant prices). Since these prices remain fixed, if the Real GDP changes we can be sure that it is the volume of production that is undergoing changes. **An increase in real GDP implies an increase in the production of goods and services. Hence, statement 1 is correct.**
- **Nominal GDP, on the other hand, is simply the value of GDP at the current prevailing prices. Hence, it may happen that the numbers of nominal GDP have increased due to price rise and not necessarily due to production increase. Actually, production may have remained constant or decreased in an economy but due to price rise, the nominal GDP figures may have improved. Hence, statement 2 is not correct.**

Q 48.B

- If the GDP of the country is rising, the welfare may not rise as a consequence. This is because the rise in GDP may be concentrated in the hands of very few individuals or firms. For the rest, the income may in fact have fallen. In such a case the welfare of the entire country cannot be said to have increased. the GDP is not taking into account such negative externalities. Therefore, if we take GDP as a measure of the welfare of the economy we shall be overestimating the actual welfare. This was an example of a negative externality. There can be cases of positive externalities as well. In such cases, GDP will underestimate the actual welfare of the economy. **Hence statement 1 is not correct.**
- Because of development, there will be pollution of rivers and air. This may cause harm to the people who use the water of the river. Hence their well-being will fall. Pollution may also kill fish or other organisms of the river on which fish survive. As a result, the fishermen of the river may be losing their livelihood. Such harmful effects that the project is inflicting on others, for which it will not bear any cost, are called externalities. In this case, the GDP is not taking into account such negative externalities. **Hence statement 2 is correct.**
- Many activities in an economy are not evaluated in monetary terms. For example, the domestic services women perform at home are not paid for. The exchanges which take place in the informal sector without the help of money are called barter exchanges. In barter exchanges, goods (or services) are directly exchanged against each other. But since money is not being used here, these exchanges are not registered as part of economic activity. **Hence statement 3 is correct.**

Q 49.C

- A variable is a measurable quantity that varies (changes). There are two types of variables i.e. stocks and flows. The basis of distinction is measurability at a point of time or period of time.
- **A flow is a quantity that is measured with reference to a period of time.** Thus, flows are defined with reference to a specific period (length of time), i.e. weeks, months, or years. For example, **National income is a flow, as it describes and measures the flow of goods and services** which become available to a country during a year.
- Other examples of flow variables are expenditure, savings, depreciation, exports, imports, change in inventories (not mere inventories), change in money supply, output, rent, profit, etc. because the magnitude (size) of all these are measured over a period of time. **A stock is a quantity that is measurable at a particular point in time.** For example, capital is a stock variable as capital goods continue to serve us through different cycles of production. The buildings or machines in a factory are there irrespective of the specific time period. There can be an addition to or deduction from, these if a new machine is added or a machine falls in disuse and is not replaced. A flow shows change during a period of time whereas a stock indicates the quantity of a variable at a point in time. **Thus, wealth is a stock since it can be measured at a point in time,** but income is a flow because it can be measured over a period of time. Other examples of stock are foreign debts, loans, inventories (not change in inventories), population, etc. **Hence option (c) is the correct answer.**

Q 50.D

- **Types of Exchange Rates**
 - **Nominal Exchange Rate is the relative price of the currencies of two countries.** For example, if the exchange rate between the U.S. dollar and the Indian Rupee is Rs. 60 per dollar, then you can exchange one dollar for 60 Rupees in world markets for foreign currency. When people refer to “the exchange rate” between two countries, they usually mean the nominal exchange rate.
 - ✓ Nominal exchange rates are established on currency financial markets called “forex markets”, which are similar to stock exchange markets.
 - **Real Exchange Rate** is the relative price of the goods of two countries. That is, the real exchange rate tells us the rate at which we can trade the goods of one country for the goods of another. The real exchange rate is sometimes called the terms of trade.
 - Thus, the **Nominal Effective Exchange Rate (NEER) is the weighted average value of the nominal exchange rate of the rupee against the currencies of major trading partners of India. Hence, statement 2 is not correct.**
 - On the other hand, the **Real Effective Exchange Rate (REER) is the weighted average of the Real Exchange Rates of the Rupee against the currencies of major trading partners of India. Hence, statement 1 is not correct.** The weights are determined by the importance that a home country places on all other currencies traded within the pool, as measured by the balance of trade.
 - **Unlike NER and RER, NEER and REER are not determined for each foreign currency separately.**
 - There is a concept of **Effective Exchange Rate** which describes the relative strength of a currency relative to a basket of other currencies.

Q 51.B

- The Prime Minister released the figures of the 5th cycle of India’s Tiger Census revealing that tiger numbers have once again increased in the country and now stand at 3,167 in the wild as of 2022. The 2018 Tiger Census, released in July 2019, established the presence of 2,967 tigers in India. The animal population in the country has increased by 200 or 6.7 percent in the past four years. While the tiger numbers in the country stood at 1,411 in 2006, it increased to 1,706 in 2010 and 2,226 in the 2014 cycle of evaluations.
- **PM released the Tiger Census while inaugurating the International Big Cat Alliance in Karnataka’s Mysuru, the first of its kind in the country, organised to mark 50 years of Project Tiger. The three-day conference will focus on the protection and conservation of seven major big cats of the world – tigers, lions, leopards, snow leopards, pumas, jaguars and cheetahs.**
- Being the 50th year of Project Tiger, it is notable that governments, since 1973, have consistently devoted attention to ensuring that tigers — generally vulnerable to environmental degradation and extinct in several countries — continue to populate India’s forests. However, this does not mean that tiger numbers are ordained to grow in perpetuity. The ‘Status of Tiger’ report warns that all of India’s five main tiger zones, while largely stable, face challenges of deforestation and loss of tiger habitat.
- **The only landscape in India where the tiger population has gone down is the Western Ghats, where declaring of an ecologically sensitive zone has been hanging since 2010, according to the latest tiger estimation report. The estimation was done in five landscapes. Population increase is substantial in Shivalik & Gangetic flood plain which is followed by Central India, North Eastern Hills and Brahmaputra flood plains and Sundarbans while Western Ghats population showed decline with major populations being stable. Hence, statement 1 is not correct.**
- The overlap between “wildlife and humans” because of developmental activities has led to a fall in the tiger population in the areas under the World Heritage Western Ghats landscape, which is the “most biodiverse” in the country, according to the report.
- The Western Ghats tiger landscape is 1,600 km long and covers an area of about 1,40,000 square km. It spans six states --- Karnataka, Maharashtra, Goa, Kerala, Tamil Nadu and Telangana -- and contains 12 Tiger Reserves, 20 National Parks, and 68 Wildlife Sanctuaries and is home to several endemic species such as lion-tailed macaque, the Malabar giant squirrel, and the Nilgiri tahr.
- From nine tiger reserves in 1973 to 53 today, the increase in numbers has not translated to all of these reserves becoming suitable habitats for tigers. Serious conservation efforts are needed to help, for instance, tiger population recovery in Jharkhand, Odisha, Chhattisgarh, Telangana, and Andhra Pradesh. Experts have said India’s reserves, in their present state, ought to be able to sustain populations of up to 4,000, and with expanded efforts at improving fledgling reserves, these numbers can increase.

- **The National Tiger Conservation Authority, which conducts the estimation, has not released state or tiger reserve-wise tiger estimation but has provided some state-specific insight in the overall report. Hence, statement 2 is correct.**

Q 52.C

- The Wholesale Price Index (WPI) reflects changes in the average prices of goods at the wholesale level — that is, commodities sold in bulk and traded between businesses or entities rather than goods bought by consumers.
 - WPI captures the price changes at the point of bulk transactions and may include some taxes levied and distribution costs up to the stage of wholesale transactions. **Hence statement 3 is not correct.**
- There are certain limitations in using WPI as a measure for inflation, as WPI does not consider the price of services, and it does not reflect the consumer price situation in the country. The wholesale market is only for goods, you cannot buy services on a wholesale basis. **So WPI does not include services. Hence statement 4 is correct.**
- WPI is released by the Economic Advisor in the Ministry of Commerce and Industry. The purpose of WPI is to inspect movement in prices of goods that reflect supply and demand in industry, construction and manufacturing. **Hence statement 1 is correct.**
- The index basket of WPI categorises commodities under three groups — primary articles, fuel and power & manufactured products. **The biggest basket is Manufactured Goods.** It spans across a variety of manufactured products such as Textiles, Apparels, Paper, Chemicals, Plastic, Cement, Metals, and more. **Hence statement 2 is not correct.**
- In April 2017, the government revised the base year for WPI from 2004-05 to 2011-12. WPI is extensively used for short-term policy intervention as it is the only index that is available on a weekly basis.

Q 53.A

- **International Monetary Fund (IMF) Finances:** The money for lending comes from the member countries primarily through their payment of quotas. Each member country of the IMF is assigned a quota, based broadly on its relative position in the world economy.
 - Quotas are denominated in Special Drawing Rights (SDRs), the IMF's unit of account.
 - **The current quota formula is a weighted average of GDP (50%), Openness (30%), Economic Variability (15%) and International Reserves (5%). Hence, option (a) is the correct answer.**
 - The capital subscriptions or quota is now made up of 25 p.c. of its quota in SDRs or widely accepted currencies (such as the US dollar, euro, the yen or the pound sterling) instead of gold and 75 p.c. in the country's own currency.

Q 54.A

- **Frictional Unemployment:**
 - Frictional Unemployment, also called Search Unemployment, refers to the time lag between jobs when an individual is searching for a new job or is switching between jobs. **Hence option (a) is the correct answer.**
 - In other words, an employee requires time for searching for a new job or shifting from the existing one to a new job, this inevitable time delay causes frictional unemployment.
 - It is often considered voluntary unemployment because it is not caused due to the shortage of jobs, but in fact, the workers themselves quit their jobs in search of better opportunities.

Q 55.A

- **The World Health Organization (WHO)** has launched the '**Preparedness and Resilience for Emerging Threats**' (PRET) to better prepare for future outbreaks of a similar scale and devastation as the COVID-19 pandemic.
- It aims to provide “guidance on integrated planning for responding to any respiratory pathogen such as influenza or coronaviruses”.
- The initiative was **announced at the Global Meeting for Future Respiratory Pathogen Pandemics held on 24-26 April 2023 in Geneva, Switzerland.**
- **Hence, option (a) is the correct answer.**

Q 56.D

- **Jagdish Chandra Bose:**
- **Recent context:** In April month, a group of researchers from Tel Aviv University in Israel reported that they had been able to pick up distress noises made by plants. The researchers said these plants had been

making very distinct, high-pitched sounds in the ultrasonic range when faced with some kind of stress, like when they were in need of water. This was the first time that plants had been caught making any kind of noise.

- Jagadish Chandra Bose (1858 – 1937) was an Indian physicist and plant physiologist.
- He earned a B.Sc. from University College London, which was connected with the University of London in 1883, and a BA (Natural Sciences Tripos) from the University of Cambridge in 1884.
- **Contributions**
 - ✓ In 1917, he established Bose Institute – Asia's first modern research center devoted to interdisciplinary studies.
 - ✓ He **discovered wireless communication** and was named Father of Radio Science by the Institute of Electrical and Electronics Engineering. **Hence, statement 1 is correct.**
 - ✓ He **invented the crescograph**, a device for measuring the growth of plants. He for the first time demonstrated that plants have feelings. **Hence, statement 2 is correct.**
 - ✓ He was the **first to demonstrate radio communication with millimeter wavelengths**, which fall in the 30GHz to 300GHz spectrum. **Hence, statement 3 is correct.**
 - ✓ Bose is considered the father of Bengali science fiction. A crater on the moon has been named in his honor.
 - ✓ In 1896, he published Niruddeshar Kahini, the first work of science fiction in the Bengali language
 - ✓ Bose was the first Asian to be awarded a US patent. In 1904, he was awarded a patent for his invention of a detector for electrical disturbances.
 - ✓ Books: Response in the Living and Non-Living, The Nervous: Mechanism of Plants, etc.

Q 57.D

- Ease of doing business is an index published by the World Bank. It is an aggregate figure that includes different parameters which define the ease of doing business in a country.
- **World Economic Outlook** - A Survey by the IMF staff usually published twice a year. It presents IMF staff economists' analyses of global economic developments during the near and medium term. It gives an overview as well as a more detailed analysis of the world economy; considers issues affecting industrial countries, developing countries, and economies in transition to market; and addresses topics of pressing current interest. **Hence, option 1 is not correct.**
- **Global Economic Prospects (GEP) is a flagship report of the World Bank Group**, which examines global economic developments and prospects, with a special focus on emerging markets and developing economies, on a semi-annual basis (in January and June). Each edition includes analytical pieces on topical policy challenges faced by these economies. **Hence, option 2 is correct.**
- **The World Development Report (WDR) is an annual report published since 1978 by the International Bank for Reconstruction and Development (IBRD) or World Bank.** Each WDR provides an in-depth analysis of a specific aspect of economic development. Past reports have considered such topics as agriculture, youth, equity, public services delivery, the role of the state, transition economies, labour, infrastructure, health, the environment, risk management, and poverty. The reports are the Bank's best-known contribution to thinking about development. **Hence, option 3 is correct.**
- The **Global Financial Stability Report by IMF** provides an assessment of the global financial system and markets and addresses emerging market financing in a global context. It focuses on current market conditions, highlighting systemic issues that could pose a risk to financial stability and sustained market access by emerging market borrowers. **Hence, option 4 is not correct.**

Q 58.D

- **India has adopted the five-year plan model which was practiced in the earlier communist Soviet Union.** The Five-Year Plan exercise is a detailed work plan. To begin with an Approach Paper is prepared to identify the growth target and the sectors to be prioritised in the five year plan. After the Approach Paper is discussed and finalised in the highest policy making body viz; the National Development Council, the subject divisions in Planning Commission representing the different Central Ministries set up Working Groups wherein subject experts, state government officials and central government officials are Members and they discuss and chart out the course of action to be implemented in the next five years. **Hence option (d) is the correct answer.**
- Our plan documents upto the year 2017 not only specify the objectives to be attained in the five years of a plan but also what is to be achieved over a period of twenty years. This long-term plan is called 'perspective plan'. The five year plans were supposed to provide the basis for the perspective plan. The goals of the five year plans were: growth, modernisation, self-reliance and equity. This does not mean that

all the plans have given equal importance to all these goals. Due to limited resources, a choice has to be made in each plan about which of the goals is to be given primary importance.

Q 59.C

- **Ricardian equivalence:**
 - This theory was developed by David Ricardo in the early 19th century and later was elaborated upon by Harvard professor Robert Barro. For this reason, Ricardian equivalence is also known as the Barro-Ricardo equivalence proposition.
 - It is an economic theory that says that financing government spending out of current taxes or future taxes (and current deficits) will have equivalent effects on the overall economy. **Hence option (c) is the correct answer.**
 - This means that attempts to stimulate an economy by increasing debt-financed government spending will not be effective because investors and consumers understand that the debt will eventually have to be paid for in the form of future taxes.
 - The theory argues that people will save based on their expectation of increased future taxes to be levied in order to pay off the debt and that this will offset the increase in aggregate demand from the increased government spending. This also implies that Keynesian fiscal policy will generally be ineffective at boosting economic output and growth.

Q 60.B

- **Masala Bonds:** They are Indian rupee-denominated bonds issued in offshore capital markets. Hence, statement 1 is not correct.
 - They are issued to offshore investors settled in dollars and, therefore, the currency risk lies with the investor and not the issuer, unlike external commercial borrowings – where Indian companies raise money in foreign currency loans. Hence, statement 2 is correct.
- **Benefits of Masala Bonds:**
 - Companies do not have to worry about rupee depreciation.
 - Masala bonds help protect corporate balance sheets from exchange rate risks, however, their issuance should be used in moderation.
 - Masala bonds can have implications for the rupee, interest rates, and the economy as a whole.

Q 61.C

- The **Special Drawing Rights (SDR)** is an international reserve asset, created by the IMF in 1969 to supplement its member countries' official reserves. The SDR is neither a currency nor a claim on the IMF. Rather, it is a potential claim on the freely usable currencies of IMF members. SDRs can be exchanged for these currencies. The SDR serves as the unit of account of the IMF and some other international organizations. The currency value of the SDR is determined by summing the values in US dollars, based on market exchange rates, of a SDR basket of currencies.
- **Hence option (c) is the correct answer.**

Q 62.A

- **Direct Taxes:**
 - Direct taxes are levied on an individual's property or company's property and revenue. Direct taxes are levied on businesses and individuals and are paid directly to the government.
 - Direct taxes have an impact on people's income levels as well as their purchasing power. It also aids in the adjustment of the economy's aggregate demand. Direct taxation can be proportional, progressive, or regressive.
 - Tax revenues, an important component of revenue receipts, comprise direct taxes – which fall directly on individuals (personal income tax) and firms (corporation tax), and indirect taxes like excise taxes (duties levied on goods produced within the country), customs duties (taxes imposed on goods imported into and exported out of India) and service tax.
 - Other direct taxes are wealth tax, gift tax, and estate duty (now abolished). **Hence option (a) is the correct answer.**

Q 63.B

- **Recent context:** Indian Space Research Organisation (ISRO), Polar Satellite Launch Vehicle C55 (PSLV-C55) mission was launched on 22 April 2023. This was a dedicated commercial mission through NSIL with TeLEOS-2 as the primary satellite and Lumelite-4 as a co-passenger satellite weighing 741 kg and 16 kg respectively.

- The PSLV-C55 mission has the PSLV Orbital Experimental Module (POEM), where the spent PS4 of the launch vehicle would be utilised as an orbital platform to carry out scientific experiments through non-separating payloads.
- This is the third time that PS4 will be used after satellite separation as a platform for experiments. According to the space agency, POEM has seven experimental non-separable payload.
- **PSLV Orbital Experimental Module**, Poem is the spent fourth stage of the launch vehicle that would be used as an orbital platform to carry out scientific experiments through non-separating payloads. PSLV is a four-stage rocket, and while the first three stages are jettisoned into the ocean after they push the mission to desired orbit, the four-stage remains in orbit and becomes space junk.
- Isro is now repurposing this fourth stage to use an experimental platform. The mission will carry seven non-separable payloads from Isro, Bellatrix, Dhruva Space, and the Indian Institute of Astrophysics neatly packed on this fourth stage. The fourth stage or the orbital experimental platform, Poem, is powered by solar panels and is fitted with its own Navigation Guidance and Control (NGC) system, which helps in attitude stabilization. This is not the first time that Isro is repurposing the fourth stage to use for in-house experiments, it has done that a couple of times in the past as well. **Hence, option (b) is the correct answer.**
 - A **reusable launch vehicle** has parts that can be recovered and reflown, while carrying payloads from the surface to outer space.
 - A **Fractional Orbital Bombardment System** is a warhead delivery system that uses a low earth orbit towards its target destination. Just before reaching the target, it deorbits through a retrograde engine burn.
 - **'Project NETRA'** is an early warning system in space to detect debris and other hazards to Indian satellites.

Q 64.C

- The Budget can also be presented to the House in two or more parts and when such presentation takes place, each part shall be dealt with as if it were the budget. Further, there shall be no discussion of the budget on the day on which it is presented to the House.. The finance minister presents the budget with a speech known as the 'budget speech'. At the end of the speech in the Lok Sabha, the budget is laid before the Rajya Sabha, which can only discuss it and has no power to vote on the demands for grants. **The budget documents presented to the Parliament comprise of the following :**
 - Budget Speech
 - Annual Financial Statement
 - **Demands for Grants**
 - Appropriation Bill
 - **Finance Bill**
 - Statements mandated under the FRBM Act:
 - ✓ Macro-Economic Framework Statement
 - ✓ Fiscal Policy Strategy Statement
 - ✓ **Medium Term Fiscal Policy Statement**
 - Expenditure Budget
 - Receipts Budget
 - Expenditure Profile
 - Memorandum Explaining the Provisions in the Finance Bill (xi) Budget at a Glance
 - **Outcome Budget**
- Earlier, the **Economic Survey** also used to be presented to the Parliament along with the budget. Now, it is presented one day or a few days before the presentation of the budget. This report is prepared by the finance ministry and indicates the status of the national economy. Hence option (c) is the correct answer. **Hence option (c) is the correct answer.**

Q 65.D

- Rules of origin are the rules to attribute a country of origin to a product in order to determine its "economic nationality". The need to establish rules of origin stems from the fact that the **implementation of trade policy measures, such as tariffs, quotas, trade remedies**, in various cases, depends on the country of origin of the product at hand.
- Rules of origin are used:
 - to implement measures and **instruments of commercial policy such as anti-dumping duties and safeguard measures;**

- to determine whether imported products shall receive most-favoured-nation (MFN) treatment or preferential treatment;
- for the purpose of trade statistics;
- for the application of labelling and marking requirements; and
- for government procurement.
- **General Agreement on Tariffs and Trade (GATT)** has **no specific rules** governing the determination of the country of origin of goods in international commerce. Each contracting party was **free to determine its own origin rules**, and could even maintain several different rules of origin depending on the purpose of the particular regulation.
- During international trade, an exporting country needs to show a certificate under norms of "**rules of origin**" to prove that the commodity or a product originates there. Rules of origin norms help in containing dumping of goods. **Hence option (d) is the correct answer.**

Q 66.C

- Millions of baby Olive Ridley sea turtles crawled towards the Bay of Bengal after emerging from eggshells along Odisha's Rushikulya beach in Ganjam district, recording one of the most successful mass nesting and hatchings in the past few decades.
- Usually, mass nesting takes place for three to four days. However, turtles had come to lay their eggs over a period of nine days this year. After laying eggs, they disappeared into the sea.
- After 50 days, baby turtles have emerged from eggs themselves, without mother turtles, and started their journey towards an unknown destination using a vast seawater route.
- **Generally, an Olive Ridley turtle lays 100-150 eggs in a cavity created by them with their front flippers. They scoop out sand for hours to create the void. After laying eggs in one go, these creatures cover it again with sand. Before sunrise, the turtles return to the sea, leaving behind the eggs to hatch after 40-60 days.** Sometimes, a turtle lays eggs in a pit at a place which was previously used by another turtle, leading to the loss of thousands of eggs. **Hence, statement 2 is correct.**
- **The Rushikulya beach is a unique phenomenon, which is not a wildlife sanctuary, yet turtles feel safe to carry out mass nesting. Baby turtles started coming out from eggshells in the second week of April this year. Hence, statement 3 is not correct.**
- Once a turtle finds the right spot, it settles down to make a shallow nest where it will lay about 100 eggs on average. A turtle uses its flippers to scoop out sand to create a cavity 30 cm to 50 cm deep to lay eggs.
- Growing to about half a metre and 50 kg in weight, the Olive Ridley turtle gets its name from its green-grey carapace (top shell). **It is the smallest of all the sea turtle species. Olive Ridley turtles, a vulnerable species according to the International Union for Conservation of Nature, come ashore to the Rushikulya river mouth in Odisha to lay eggs. Hence, statement 1 is not correct.**
- The Olive Ridley turtles do not wait to see the eggs hatch but come back next season to lay eggs again. They spend their lives in the ocean, inhabiting the tropical and subtropical waters of the Pacific, Indian, and Atlantic oceans.
- Turtles also arrive at Gahirmatha Beach in Odisha's Kendrapara district, known as the world's largest rookery. Besides, Puri and Devi river mouth beaches too host Olive Ridley turtles this time around.
- As part of a long-term study, researchers of the Zoological Survey of India (ZSI) continued tagging of Olive Ridley turtles at three mass nesting sites – Gahirmatha, Devi river mouth, and Rushikulya. The metal tags affixed to turtles are non-corrosive and they do not harm their body. The metal can be removed later. The tags are uniquely numbered containing details such as the name of the organization, country code, and email address.

Q 67.B

- **Recently**, West Bengal notified Char Balidanga (Nadia), Namthing Pokhari (Darjeeling), Amkhoi Wood Fossil Park (Birbhum) and State Horticulture Research and Development Station (Nadia) as the four latest Biodiversity Heritage Sites (BHS) making it the state with the highest number of BHS in India.
- Biodiversity Heritage Sites are well-defined areas that are **unique, ecologically fragile ecosystems with a high diversity of wild and domesticated species, the presence of rare and threatened species, and keystone species.**
- The **State Government, in cooperation with local bodies**, may designate sites of biological importance as Biodiversity Heritage Sites under the **Biological Diversity Act of 2002.**
 - **Gandhamardan Hill Range** is located in Bargarh and Balangir districts, Odisha. **Hence pair 1 is not correctly matched.**

- ✓ This is the third BHS of Odisha after Mandasuru Gorge in the Kandhamal district and Mahendragiri Hill Range in the Gajapati district. The Gandhamardan Hill, located in both Balangir and Bargarh, is considered as the treasure trove of medicinal plants and an Ayurvedic paradise of Odisha. This ecologically fragile ecosystem is rich in floral and faunal diversity having diverse socio-economic, ecological and biological significance for the people of Odisha. As per the government, the floral diversity of the hill comprises 1,055 plant species that include 849 angiosperms, 56 pteridophytes, 40 bryophytes, 45 lichens and two gymnosperms and 63 species of macrofungi. Moreover, the faunal diversity comprises 500 species of animals that include 43 mammals, 161 birds, 44 reptiles, 16 amphibians, 118 butterflies, 27 dragonflies and 7 damselflies, and 83 species of spiders. One angiosperm, *Ficus conccina* var *dasycarpa* and one spider, *Peucetia harishankarensis*, are endemic to this hill. Besides, two historical monuments such as the Nrusinghanath Temple located on the northern slope and the Harishankar Temple situated on the southern slope of the foothills of Gandhamardan, have immense cultural significance. The two hill shrines are major pilgrimage sites of Odisha. In his chronicles, Hiuen Tsang had described the hill shrine as a Buddhist heritage site named Parimalagiri. In the 1980s, then public sector Bharat Aluminium Company Limited (BALCO), now under the control of Vedanta Group, had almost started mining of bauxite from Gandhamardan.
- **Arittapatti is located in Madurai district, Tamil Nadu. Hence pair 2 is correctly matched.**
 - ✓ Arittapatti village, known for its ecological and historical significance, houses around 250 species of birds including three important raptors - birds of prey, namely the Laggar Falcon, the Shaheen Falcon and Bonelli's Eagle. Arittapatti village of Melur block in Madurai. It is also home to wildlife such as the Indian Pangolin, Slender Loris and pythons. The area is surrounded by a chain of seven hillocks or inselbergs that serve as a watershed, charging "72 lakes, 200 natural springs and three check dams," the notification said. The Anaikondan tank, built during the reign of Pandiyan kings in the 16th century is one among them. Several megalithic structures, rock-cut temples, Tamil Brahmi inscriptions and Jain beds add to the historical significance of the region.
- **Namthing Pokhari is located in Darjeeling, West Bengal. Hence pair 3 is not correctly matched.**
 - ✓ Titled as the natural habitat of the rare endangered species of Himalayan Salamander, Namthing Pokhari is the only place except for Jorpokhari in Darjeeling to inhabit these rarest species in the world. The Himalayan Salamander in Namthing Pokhari is cited to fall under the *Tylototriton verrucosus* species which is found only in Darjeeling. Therefore, this unique amphibian is conserved under Schedule II Part I of the Indian Wildlife Protection Act, 1972. The Himalayan Salamander found in Namthing Pokhari is a keystone species of the lentic zones in the Eastern Himalayas. This endangered species belongs to an offshoot of the ancient family Salamandridae, which is known to have existed in Europe during the Miocene age, that is, between 13-25 million years ago. These salamanders are now entirely vanished in the other part of the world. Fortunately, they are still surviving in the solitary Namthing Lake of Shelpu Hills.

Q 68.D

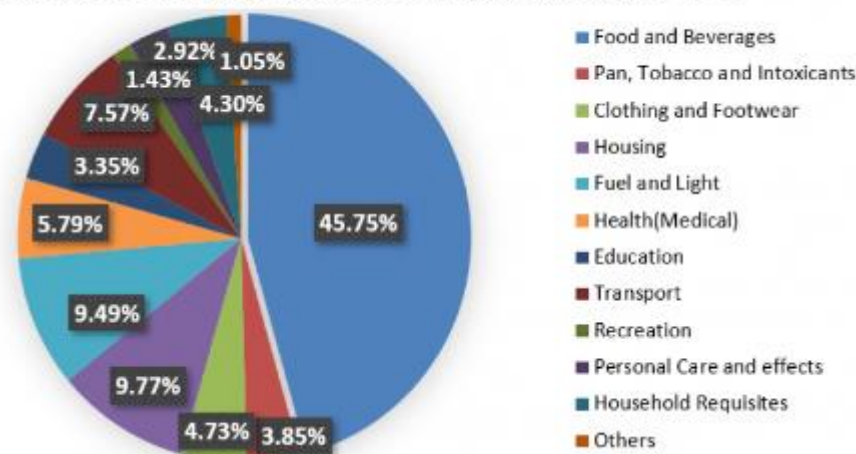
- **Dakar Declaration**
 - 'Dakar Declaration' was adopted by 21 African countries committing to strengthening reporting on road crash fatalities, enhancing data capture, analysis, sharing, and coordination to shape better road safety policies. **Hence option (d) is the correct answer.**
 - It is being conducted at the first African sub-regional conference on implementing the Global Plan for Road Safety in Dakar, Senegal.
 - **Other treaties on road safety:**
 - ✓ The decade of Action for road safety 2021–2030 (target of preventing at least 50% of road traffic deaths and injuries by 2030);
 - ✓ Stockholm Declaration on Road Safety 2020;
 - ✓ National Road Safety Policy 2010;
 - ✓ Delhi Declaration on Road Safety 2021

Q 69.C

- **Consumer Price Indices (CPI) measures change over time in the general level of prices of goods and services that households acquire for the purpose of consumption. Hence statement 1 is correct.**
- **In India, CPI measured by the Ministry of Statistics and Programme Implementation with Base Year 2012.** In India, there are four consumer price index numbers, which are calculated, and these are as follows:
 - CPI for Industrial Workers (IW)

- CPI for Agricultural Labourers (AL)
- CPI for Rural Labourers (RL) and
- CPI for Urban Non-Manual Employees (UNME). **Hence statement 2 is correct.**
- While the Ministry of Statistics and Program Implementation collects CPI (UNME) data and compiles it, the remaining three are collected by the Labour Bureau in the Ministry of Labour.
- **Inflation is measured using CPI.** The percentage change in this index over a period of time gives the amount of inflation over that specific period, i.e. the increase in prices of a representative basket of goods consumed.
- CPI is calculated for a fixed list of items including food, housing, apparel, transportation, electronics, medical care, education, etc. **The weightage of food and beverages in the CPI is close to 50%. Hence statement 3 is correct.**

Weighting Diagram for Basket of Goods & Services under CPI :



Q 70.D

- **Recently, the Voyager 2 spacecraft, which is now travelling in interstellar space, has gotten a new lease of life after mission engineers developed a new plan to keep its instruments running for longer till 2026.**
- **Voyager 2** was launched by NASA in 1977, with its initial mission objective of probing space. Currently, it is so far away from Earth that radio signals from the spacecraft take 18 hours to reach us.
- **Voyager 2 and Voyager 1 are the only spacecraft that has ever operated outside the heliosphere,** which is considered to be the border of our solar system. The heliosphere is a bubble of particles and magnetic fields generated by the Sun.
- **NASA's New Horizons** spacecraft was the first spacecraft to explore **Pluto up close**; **Cassini-Huygens**, commonly called Cassini, was a space-research mission by NASA, the European Space Agency, and the Italian Space Agency to send a space probe to **study the planet Saturn**; Juno is a NASA space probe orbiting the **planet Jupiter**.
- **Hence, option (d) is the correct answer.**

Q 71.C

- **The Capital Account:** The Capital Budget is an account of the assets as well as liabilities of the central government, which takes into consideration changes in capital. It consists of capital receipts and capital expenditure of the government. This shows the capital requirements of the government and the pattern of their financing.
 - **Capital Receipts:** The main items of capital receipts are loans raised by the government from the public which are called market borrowings, borrowing by the government from the Reserve Bank and commercial banks and other financial institutions through the sale of treasury bills, loans received from foreign governments and international organizations, and recoveries of loans granted by the central government. Other items include small savings (Post-Office Savings Accounts, National Savings Certificates, etc), provident funds, and net receipts obtained from the sale of shares in Public Sector Undertakings (PSUs). **Hence option (c) is the correct answer.**
 - **Capital Expenditure:** This includes expenditure on the acquisition of land, buildings, machinery, equipment, investment in shares, and loans and advances by the central government to state and union territory governments, PSUs, and other parties. Capital expenditure is also categorized as plan and non-plan in the budget documents.

- ✓ Plan capital expenditure, like its revenue counterpart, relates to the central plan and central assistance for state and union territory plans.
- ✓ Non-plan capital expenditure covers various general, social, and economic services provided by the government.
- **Note:** Revenue receipts are current income receipts from all sources such as taxes, profits of public enterprises, grants, etc. Revenue receipts neither create any liability nor cause any reduction in the assets of the government. Capital receipts, on the other hand, are the receipts of the government that either create liability or cause any reduction in the assets of the government. e.g., borrowings, recovery of loans, and disinvestment, etc.

Q 72.C

- National Bank for Agriculture and Rural Development (NABARD) was set up in 1982 as an apex body to coordinate the activities of all institutions involved in the rural financing system. It was established in 1982 under the National Bank for Agriculture and Rural Development Act, 1981. **Hence option (c) is the correct answer.**
- NABARD is a development bank in India that focuses on providing financial and other support to the agriculture and rural development sectors. It offers a range of financial products and services, including various funds, to meet the needs of its clients.
- NABARD is responsible for supervising and providing financial assistance to the Regional Rural Banks (RRBs) in India. RRBs are public sector banks that were established to provide banking and financial services to the rural and semi-urban areas of the country.
- Some of the funds managed by NABARD include:
 - Rural Infrastructure Development Fund (RIDF),
 - Dairy Processing and Infrastructure Development Fund (DIDF),
 - Rural Innovation Fund (RIF)
- **The origins of priority sector (PS) lending can be traced back to 1966 when Morarji Desai saw a need for increasing credit to agriculture and small industries. However, the definition of PS was only formalized based on a Reserve Bank of India (RBI) report in the National Credit Council in 1972.** The Priority Sector norms are applicable to apply to every Commercial Bank [including Regional Rural Bank (RRB), Small Finance Bank (SFB), and Local Area Bank], and Primary (Urban) Co-operative Bank (UCB) other than Salary Earners' Bank. As per the PSL norms, the Domestic commercial banks (excluding RRBs & SFBs) & foreign banks with 20 branches and above are mandated to allocate 40 percent of Adjusted Net Bank Credit (ANBC) to the priority sectors.
- Rural Banks were set up on the basis of the recommendations of the Narasimham Working Group (1975), and after the legislation of the Regional Rural Banks Act, 1976. The first Regional Rural Bank "Prathama Grameen Bank" was set up on October 2, 1975.
- The first phase of the nationalization of banks took place in 1969. 14 banks were nationalized that year.

Q 73.A

- In 2016, the Reserve Bank of India Act, 1934 (RBI Act) was amended to provide for a statutory and institutionalised framework for a Monetary Policy Committee (MPC). The Preamble in the RBI Act, as amended by the Finance Act, 2016, now provides that the primary objective of the monetary policy is to maintain price stability, while keeping in mind the objective of growth, and to meet the challenge of an increasingly complex economy. RBI would, accordingly, operate a Monetary Policy Framework. Thus, now there is a statutory basis for a Monetary Policy Framework and the MPC. **Hence statement 1 is correct.**
- A Committee-based approach will add lot of value and transparency to monetary policy decisions. Out of the six Members of MPC, three Members will be from the Reserve Bank of India (RBI), including the Governor, RBI, who will be the ex-officio Chairperson, the Deputy Governor, RBI and one officer of RBI. The other three Members of MPC will be appointed by the Central Government, on the recommendations of a Search-cum-Selection Committee. These three Members of MPC will be experts in the field of economics or banking or finance or monetary policy and will be appointed for a period of 4 years and shall not be eligible for re-appointment. The meetings of the MPC shall be held at least 4 times a year and it shall publicise its decisions after each such meeting.
- Under the new statutory framework, **the central government would, in consultation with the Reserve Bank of India (RBI), set an inflation target based on the consumer price index (CPI) once every five years.** The RBI was entrusted with the responsibility of meeting this target ("accountability"), for which it would be given "independence" in the conduct of monetary policy. **Hence statement 2 is not correct.**

- The inflation target of the Reserve Bank of India is 4 percent, with a 2 per cent extension in the upper bound and 2 per cent in the lower bound.

Q 74.C

- The Fiscal Responsibility and Budget Management Act (FRBM Act), 2003, establishes financial discipline to reduce fiscal deficit. The FRBM Act aims to introduce transparency in India's fiscal management systems. The Act's long-term objective is for India to achieve fiscal stability and to give the Reserve Bank of India (RBI) flexibility to deal with inflation in India. The FRBM Act was enacted to introduce more equitable distribution of India's debt over the years.
- **Key features of the FRBM Act:**
 - The FRBM Act made it mandatory for the government to place the following along with the Union Budget documents in Parliament annually:
 - ✓ Medium Term Fiscal Policy Statement
 - ✓ Macroeconomic Framework Statement
 - ✓ Fiscal Policy Strategy Statement
 - The FRBM Act proposed that revenue deficit, fiscal deficit, tax revenue and the total outstanding liabilities be projected as a percentage of gross domestic product (GDP) in the medium-term fiscal policy statement. **Hence option (c) is the correct answer.**
- On grounds of national security, calamity, etc, the set targets of fiscal deficits and revenue could be exceeded.

Q 75.A

- Regional Rural Banks (RRBs) are financial institutions that ensure adequate credit for agriculture and other rural sectors. Regional Rural Banks were set up on the basis of the recommendations of the Narasimham Working Group (1975), and after the legislation of the Regional Rural Banks Act, 1976. The first Regional Rural Bank "Prathama Grameen Bank" was set up on October 2, 1975. **Hence statement 1 is correct.**
- At present, there are around 40 RRBs in India (43 as of 2020). The equity of a regional rural bank is held by the Central Government, the concerned State Government, and the Sponsor Bank in the proportion of 50:15:35. **Hence statement 2 is not correct.**
- The RRBs combine the characteristics of a cooperative in terms of familiarity with rural problems and a commercial bank in terms of its professionalism and ability to mobilize financial resources. Each RRB operates within the local limits as notified by Government.
- The main objectives of RRBs are to provide credit and other facilities, especially to the small and marginal farmers, agricultural laborers artisans and small entrepreneurs in rural areas with the objective of bridging the credit gap in rural areas, checking the outflow of rural deposits to urban areas and reduce regional imbalances and increase rural employment generation.

Q 76.A

- **Balance of Payments Surplus and Deficit**
 - The essence of international payments is that just like an individual who spends more than her income must finance the difference by selling assets or by borrowing, a country that has a deficit in its current account (spending more than it receives from sales to the rest of the world) must finance it by selling assets or by borrowing abroad. **Thus, any current account deficit must be financed by a capital account surplus, a net capital inflow.**
 - In this case, in which a country is said to be in balance of payments equilibrium, the current account deficit is financed entirely by international lending without any reserve movements.
 - **Alternatively, the country could use its reserves of foreign exchange in order to balance any deficit in its balance of payments. The reserve bank sells foreign exchange when there is a deficit. This is called an official reserve sale. Hence option (a) is the correct answer.**
 - The decrease (increase) in official reserves is called the overall balance of payments deficit (surplus). The basic premise is that the monetary authorities are the ultimate financiers of any deficit in the balance of payments (or the recipients of any surplus).

Q 77.B

- An inflationary gap measures the difference between the current real GDP and the GDP of an economy operating at full employment. **Hence option (b) is the correct answer.**
- The current real GDP must be higher than the potential GDP for the gap to be considered inflationary.

- Policies that reduce an inflationary gap include reductions in government spending, tax increases, bond and securities issues, interest rate increases, and transfer payment reductions. **H**
- An inflationary gap exists when the demand for goods and services exceeds production due to factors such as higher levels of overall employment, increased trade activities, or elevated government expenditure. The real GDP can exceed the potential GDP, resulting in an inflationary gap. The inflationary gap is named as such because the relative rise in real GDP causes an economy to increase its consumption, leading prices to climb in the long run.

Q 78.C

- **PM Street Vendor's AtmaNirbhar Nidhi (PM SVANidhi):**
 - A total of 42.7 lakh loans amounting to ₹5,152.37 crore had been disbursed to street vendors under the PM SVANidhi scheme
 - This is a Central Sector Scheme to facilitate street vendors to access affordable working capital loans for resuming their livelihood activities, after the easing of the lockdown. **Hence, statement 1 is correct.**
 - The COVID-19 pandemic and consequent lockdowns have adversely impacted the livelihoods of street vendors. They usually work with a small capital base, which they might have consumed during the lockdown. Therefore, credit for working capital to street vendors will be helpful to resume their livelihoods.
 - **To facilitate an initial working capital loan of up to 10,000 at a subsidized rate of interest. Hence, statement 2 is not correct.**
 - To incentivize regular repayment of loans; and
 - To reward digital transactions.
 - ✓ Initial working capital of up to ₹10,000/- rupees
 - ✓ Interest subsidy on timely/ early repayment @ 7%
 - ✓ Monthly cash-back incentive on digital transactions
 - ✓ Higher loan eligibility on timely repayment of the first loan.
 - Street vendors/ hawkers vending in urban areas, as on or before March 24, 2020, including the vendors of surrounding peri-urban and rural areas. **Hence, statement 3 is correct.**
 - No collateral security is required.
 - The interest subsidy amount will be credited directly to the beneficiary account on a quarterly basis. In case of early payment, the admissible amount of subsidy will be credited in one go.

Q 79.B

- **Balance of Payments (BoP) of a country is a systematic record of all economic transactions between the residents of one country and the rest of the world during a given period of time.** It summarizes all transactions that a country's individuals, companies and government bodies complete with individuals, companies and government bodies outside the country. These transactions consist of imports and exports of goods, services and capital, as well as transfer payments such as foreign aid and remittances. **Hence, option (b) is the correct answer.**
- **An example of Balance of Payments as per Economic Survey 2022-23.**

Table 5.2. Balance of Payments as per IMF Balance of Payments Manual 5								
Items	2011-12		2012-13		2013-14		2014-15	
	₹ crore	US\$ million	₹ crore	US\$ million	₹ crore	US\$ million	₹ crore	US\$ million
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1 Imports (c.i.f.)	2394647	499533	2732146	502237	2815918	466216	2820072	461484
2 Exports (f.o.b.)	1482517	309774	1667690	306581	1931074	318607	1934210	316545
3 Trade Balance (2-1)	-912129	-189759	-1064456	-195656	-884845	-147609	-885862	-144940
4 Invisibles								
a) Receipts	1053480	219229	1218893	224044	1413843	233569	1478048	241645
b) Payments	517323	107625	634047	116551	716134	118256	755499	123564
(of which: Interest & Service Payments on Loans and Credits)	41046	8527	59546	10944	67747	11176	77376	12650
c) Net	536157	111604	584846	107493	697709	115313	722549	118081
5 Current Account Balance	-375973	-78155	-479610	-88163	-187136	-32296	-163313	-26859
6 Capital Account								
I Foreign Investment	188738	39231	254653	46711	159650	26386	449072	73456
i) Foreign Direct Investment								
a) Inward FDI	154961	32952	146954	26953	186830	30763	215893	35283
b) Outward FDI	-51794	-10892	-38768	-7134	-56860	-9199	-24675	-4031
c) Net	103167	22061	108186	19819	129969	21564	191219	31251
ii) Portfolio Investment (net)	85571	17170	146467	26891	29680	4822	257853	42205
II Loans (net)	89748	19307	169073	31124	45901	7765	19733	3184
i) External Assistance								
a) Inflow	27355	5646	25747	4735	28239	4659	35408	5780
b) Out flow	16051	3350	20421	3752	22043	3627	24787	4054
c) Net	11305	2296	5326	982	6197	1032	10622	1725
ii) Commercial Borrowings*								
a) Inflow	649101	135345	817606	150351	785202	130177	718760	117575
b) Out flow	570658	118333	653858	120209	745498	123444	709649	116116
c) Net	78443	17011	163747	30142	39704	6733	9112	1459
III) Banking								
a) Receipts	427827	89904	455407	83727	654482	108049	550976	90094
b) Payments	356829	73678	365140	67157	502818	82601	478893	78476
c) Net	70998	16226	90268	16570	151664	25449	72083	11618
IV) Rupee Debt Service (net)	-381	-79	-313	-58	-304	-52	-489	-81
V) Other Capital								
a) Receipts	64143	13296	97073	17861	133801	22171	176562	28914
b) Payments	94216	20224	125020	22908	200892	32932	169411	27806
c) Net	-30073	-6929	-27946	-5047	-67091	-10761	7151	1109
VI) Errors & omissions (net)	-11560	-2432	14578	2689	-6629	-983	-6312	-1021
7 Total Capital (I to VI of 6)	307470	65324	500313	91989	283190	47804	541238	88265
8 Overall Balance (5 + 7)	-68503	-12831	20702	3826	96054	15508	377925	61406
9 Monetary Movement								
a) IMF Transactions								
i) Purchases								
ii) Repurchases								
iii) Net								
b) Increase (-)/decrease (+) in Reserves	68503	12831	-20702	-3826	-96054	-15508	-377925	-61406
10 Total Reserve movement (9a(iii)+9b) [(+/-) Increase/ (+/-) decrease]	68503	12831	-20702	-3826	-96054	-15508	-377925	-61406

Q 80.D

- **General Agreements on Trade in Services (GATS)**
 - The GATS was inspired by essentially the same objectives as its counterpart i.e. **General Agreement on Tariffs and Trade (GATT)** covers international trade in goods. The workings of the GATT agreement are the responsibility of the Council for Trade in Goods (Goods Council) which is made up of representatives from all WTO member countries.
 - **Services negotiations in the WTO** follow the so-called **positive list approach**, whereby members' schedules of specific commitments list all of the services sectors and sub-sectors where they undertake to bind the market opening and the granting of national treatment to foreign service suppliers, apart from the listed barriers that remain.

- Sectors and sub-sectors not included in the schedule are exempt from any obligations as regards market access and national treatment. **West is pushing hard to move from a positive list approach to a negative list approach.**
- In the **negative list approach**, services, where GATS is not applicable, will have to be negotiated, agreed upon and specified. **India is against this concept as it will throw open almost the whole Indian services sector to Western multinational giants.**
- Negotiations in services under GATS are classified in 4 modes, interests of different countries depend upon this classification –
 - ✓ **Mode 1 – Cross border trade**- It includes the cross-border supply of services without the movement of natural persons. For eg. Business Process Outsourcing, KPO or LPO services. Here, it's in India's interest to push for liberalization given its large human resource pool and competitive IT industry. **Hence, pair 1 is not correctly matched.**
 - ✓ **Mode 2 – Consumption abroad**- It refers to in the territory of one Member to the service consumer of any other Member. Nationals of A have moved abroad as tourists, students, or patients to consume the respective services. **Hence, pair 2 is not correctly matched.**
 - ✓ **Mode 3 – Commercial presence** – which covers services provided by a service supplier of one country in the territory of any other country. This opens the door of relevant sectors in one country to investments from another country. Accordingly, it is in the West's interest to push for liberalization here. There has been sustained pressure to open up the higher education sector, insurance sector, Medical sector etc through this mode. **Hence, pair 3 is not correctly matched.**
 - ✓ **Mode 4 – Presence of natural persons** – which covers services provided by a service supplier of one country through the presence of natural persons in the territory of any other country. E.g. Infosys or TCS sending its engineers for onsite work in US/Europe or Australia. Here again, it's in India's interest to push for liberalization. In 2012, India dragged the US to the World Trade Organization's (WTO) dispute settlement body (DSB) over an increase in the professional visa fee (H1B/L1). **Hence, pair 4 is not correctly matched.**

Q 81.B

- In a first-ever census of mangrove pitta birds carried out in two coastal districts of Odisha, 179 such birds were sighted. **Mangrove pitta is a resident non-migratory bird that generally feeds on crustaceans, mollusks and insects. Hence, option (b) is the correct answer.**
- Mangrove pitta birds are a **nearly threatened species** found in a few pockets of eastern India, including Odisha's Bhitarkanika and West Bengal's Sundarbans.
- The first census of mangrove pitta (*Pitta megharens*) birds were mainly focused on the mangrove patches all along the coasts of the Kendrapara and Jagatsingpur districts. "The mangrove pitta is found in coastal mangrove forests of India, foraging on the ground and resting on the trees,"
- The census was carried out by point count method, either by walking in the forest or using country boats in the creeks. In this census, a total of 179 individual mangrove pitta birds were counted. **The highest concentration of the birds has been found in the mangroves near the Mahipura river mouth inside the Bhitarkanika National Park.**
- The first-ever population census of the mangrove pitta bird (*Pitta megarhynchos*) in Bhitarkanika national park revealed that the Ramsar site is home to around 179 of the avian species. "Reports indicate a population of the bird in the core areas is good. The present report reflects results from the direct count method during which all water bodies and mangrove forest areas of the park were monitored and a survey was carried out accordingly.
- The breeding season of this species ranges from April to August in Bhitarkanika. Abundant fish in the river and creeks and distance from human habitation has made Bhitarkanika a suitable congenial breeding place for this bird species.
- The Bhitarkanika National Park witnessed the arrival of 1,39,959 birds of 140 species in January this year. The birds were counted by direct sighting and from their chirping.

Q 82.A

- **Recent context: University Grants Commission (UGC) has released the final draft of the National Credit Framework (NCrF).**
- **To fulfill the vision of National Education Policy 2020, making education more holistic and effective and lay emphasis on the integration of general (academic) education, vocational education and Experiential learning including relevant experience and professional levels acquired, it becomes imperative to establish and formalize a national credit accumulation and transfer system which will**

integrate both general & vocational education while ensuring mobility of candidates between the two systems. Hence, option (a) is the correct answer.

- The National Credit Framework (NCrF) has been jointly developed by UGC, AICTE, NCVET, NIOS, CBSE, NCERT, Ministry of Education, DGT, and Ministry of Skill Development to achieve this vision and intent of NEP. NCrF is a comprehensive framework encompassing elementary, school, higher, and vocational education & training, integrating learning on all dimensions i.e. academics, vocational skills and experiential learning including relevant experience and professional levels acquired.
- The National Credit Framework (NCrF) shall be an inclusive umbrella Framework to seamlessly integrate the credits earned through school education, higher education and vocational & skill education. For creditisation and integration of all learning, the National Credit Framework (NCrF) shall encompass the qualification frameworks for higher education, vocational & skill education and school education, namely National Higher Education Qualification Framework (NHEQF), National Skills Qualification Framework (NSQF) and National School Education Qualification Framework (NSEQF) also popularly known as National Curricular Framework (NCF) respectively.
- The implementation of NCrF would be a game changer in realising the vision and intent of NEP by removing distinction, ensuring flexibility & mobility and establishing academic equivalence between general and vocational education. Such integration shall open numerous options for further progression of students and inter-mingling of school & higher education with vocational education & Experiential learning including relevant experience and professional levels acquired, to further enable entry and re-entry from vocational stream to general education and vice-versa, thus mainstreaming the vocational education and skilling.
- The National Credit Framework (NCrF) provides for broad-based, multi-disciplinary, holistic education, allowing imaginative and need-based curricular structures and enabling creative combinations of subjects and disciplines. The Framework has been built on the strength of existing regulations, guidelines and qualification frameworks of UGC, AICTE, NCVET, NCERT, CBSE & NIOS so that the options for Multiple Entry-Multiple Exit (ME-ME) are accessible and applicable across the higher education, school education and vocational education.

Q 83.D

- **In WTO terminology, subsidies in general are identified by “boxes” which are given the colours of traffic lights: green (permitted), amber (slow down — i.e. need to be reduced), red (forbidden). In agriculture, things are, as usual, more complicated.** The Agreement on Agriculture has no red box, although domestic support exceeding the reduction commitment levels in the amber box is prohibited; and there is a blue box for subsidies that are tied to programmes that limit production.
- **Amber Box:** Nearly all domestic support measures considered to distort production and trade (with some exceptions) fall into the amber box. These include measures to support prices, or subsidies directly related to production quantities. **Hence statement 2 is not correct.**
- **Green Box:** The green box is defined in Annex 2 of the Agreement on Agriculture.
 - In order to qualify, green box subsidies must not distort trade, or at most cause minimal distortion.
 - They have to be government-funded (not by charging consumers higher prices) and must not involve price support.
 - They tend to be programmes that are not targeted at particular products, and include **direct income supports for farmers that are not related to (are “decoupled” from) current production levels or prices. Hence statement 1 is not correct.**
 - They also include environmental protection and regional development programmes.
 - Green box subsidies are therefore **allowed without limits, provided they comply with the policy-specific criteria.** India's Public distribution system does not come under the Green Box.
- **Blue Box:** This is the “amber box with conditions” — conditions designed to reduce distortion. Any support that would normally be in the amber box, is placed in the blue box if the support also requires farmers to limit production. At present there are no limits on spending on blue box subsidies.

Q 84.A

- **Reserve Deposit Ratio:** It is the proportion of the total deposits commercial banks keep as reserves. Banks hold a part of the money people keep in their bank deposits as reserve money and loan out the rest to various investment projects. Reserve money consists of two things – vault cash in banks and deposits of commercial banks with RBI. Banks use this reserve to meet the demand for cash by account holders.

- **Statutory Liquidity Ratio:** SLR is an obligatory reserve that commercial banks must maintain themselves. It is a percentage of commercial banks' net demand and time liabilities, maintained as approved securities.
- **Cash Reserve Ratio:** Under the cash reserve ratio (CRR), commercial banks have to hold a certain minimum amount of deposits as reserves with the central bank.
- **Currency Deposit Ratio:** The currency deposit ratio (cdr) is the ratio of money held by the public in currency to that they hold in bank deposits. It reflects people's preference for liquidity. It is a purely behavioral parameter that depends, among other things, on the seasonal pattern of expenditure. For example, cdr increases during the festive season as people convert deposits to cash balances for meeting extra expenditures during such periods. **Hence option (a) is the correct answer.**

Q 85.D

- **The World Bank Group is a family of five international organizations that make leveraged loans to developing countries. It is the largest and best-known development bank in the world and an observer at the United Nations Development Group. The bank is headquartered in Washington, D.C. in the United States.**
 - **The International Bank for Reconstruction and Development** offers assistance to middle-income and poor, but creditworthy, countries. It also works as an umbrella for more specialized bodies under the World Bank. It was the original arm of the World Bank that was responsible for the reconstruction of post-war Europe. Before gaining membership in the other four WBG's affiliates a country must be a member of the IBRD.
 - **The International Development Association** offers loans to the world's poorest countries. These loans come in the form of "credits" and are essentially interest-free. **Hence, option 2 is correct.**
 - **The International Finance Corporation (IFC)** works to promote private sector investments by both foreign and local investors. It provides advice to investors and businesses, and it offers normalized financial market information through its publications, which can be used to compare across markets. The IFC also acts as an investor in capital markets and will help governments privatize inefficient public enterprises. **Hence, option 4 is correct.**
 - **The Multilateral Investment Guarantee Agency (MIGA)** supports direct foreign investment into a country by offering security against the investment in the event of political turmoil. These guarantees come in the form of political risk insurance, meaning that MIGA offers insurance against the political risk that an investment in a developing country may bear. **Hence, option 1 is correct.**
 - **The International Centre for Settlement of Investment Disputes** facilitates and works toward a settlement in the event of a dispute between a foreign investor and a local country. **Hence, option 3 is correct.**

Q 86.B

- Recently, **Logistic Performance Index (LPI) 2023** was released by **World Bank**. The LPI is an interactive benchmarking tool to help countries identify the challenges and opportunities they face in their performance of trade logistics and what they can do to improve their performance. **Hence, statement 1 is not correct.**
- **India now ranks 38th in the 139 countries index**, this is a **significant improvement** from its **previous ranking of 44th in 2018**. It is a result of significant investments in both soft and hard infrastructure as well as technology. **Hence, statement 2 is correct.**
- India's policy interventions include - **PM Gati Shakti initiative, National Logistics Policy, Sagarmala, Bharatmala, etc.**

Q 87.A

- **The International Monetary Fund (IMF) and the International Bank for Reconstruction and Development (IBRD), commonly known as the World Bank, were created in 1944 at a meeting of 44 nations (the Allies) at Bretton Woods, New Hampshire** to rebuild devastated economies after the war and to promote economic stability and economic development on a global scale. **These institutions thus came to be known as Bretton Woods Institutions.**
- The founders wished to protect future generations against a repeat of a worldwide economic crisis like the one experienced during the Great Depression which was believed to have partially caused the subsequent rise of fascism and the outbreak of World War II.
- **Hence, option (a) is the correct answer.**

Q 88.C

- **Generative artificial intelligence (AI) describes algorithms (such as ChatGPT) that can be used to create new content, including audio, code, images, text, simulations, and videos. Recent breakthroughs in the field have the potential to drastically change the way we approach content creation.**
- That's why ChatGPT—the GPT stands for generative pre-trained transformer—is receiving so much attention right now. It's a free chatbot that can generate an answer to almost any question it's asked. Developed by OpenAI, and released for testing to the general public in November 2022, it's already considered the best AI chatbot ever. And it's popular too: over a million people signed up to use it in just five days.
- Starry-eyed fans posted examples of the chatbot producing computer code, college-level essays, poems, and even halfway-decent jokes. Others, among the wide range of people who earn their living by creating content, from advertising copywriters to tenured professors, are quaking in their boots
- **Bard is a conversational generative artificial intelligence chatbot developed by Google, based on the LaMDA family of large language models. It was developed as a direct response to the rise of OpenAI's ChatGPT and was released in a limited capacity in March 2023 to lukewarm responses.**
- **Ernie Bot, full name Enhanced Representation through Knowledge Integration, is an AI chatbot service product of Baidu, under development since 2019. It is based on a large language model named "Ernie 3.0-Titan". It was released on March 17, 2023. Hence, option (c) is the correct answer.**
- A chatbot (originally a chatterbot) is a software application that aims to mimic human conversation through text or voice interactions, typically online. The term "ChatterBot" was originally coined by Michael Mauldin (creator of the first Verbot) in 1994 to describe conversational programs.

Q 89.A

- Pradhan Mantri Jan-Dhan Yojana (PMJDY) is National Mission for Financial Inclusion to ensure access to financial services, namely, basic savings & deposit accounts, remittance, credit, insurance, and pension in an affordable manner. Under the scheme, a basic savings bank deposit (BSBD) account can be opened in any bank branch or Business Correspondent (Bank Mitra) outlet, by persons not having any other account
- Benefits under PMJDY
 - One basic savings bank account is opened for unbanked people.
 - There is no requirement to maintain any minimum balance in PMJDY accounts.
 - **Interest is earned on the deposit in PMJDY accounts. Hence, option (a) is the correct answer.**
 - **Rupay Debit card is provided to PMJDY account holders.**
 - **Accident Insurance Cover of Rs.1 lakh (enhanced to Rs. 2 lakhs for new PMJDY accounts opened after 28.8.2018) is available with a RuPay card issued to the PMJDY account holders.**
 - **An overdraft (OD) facility of up to Rs. 10,000 to eligible account holders is available.**
 - PMJDY accounts are eligible for Direct Benefit Transfer (DBT), Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY), Pradhan Mantri Suraksha Bima Yojana (PMSBY), Atal Pension Yojana (APY), Micro Units Development & Refinance Agency Bank (MUDRA) scheme.
- In the last two financial years, only 329 claims for the accident insurance cover provided to bank account holders under the Pradhan Mantri Jan Dhan Yojana (PMJDY) have been settled out of the 647 claims that were filed. **The key condition to avail the accident insurance is that the beneficiary must have performed at least one successful transaction (financial or non-financial) using the card in the 90 days prior to the date of the accident.**

Q 90.D

- Direct monetization of deficit refers to a scenario where a central bank prints currency to the tune of accommodating massive deficit spending by the government. RBI does so by purchasing government securities directly in the primary market. Such a monetization process used to be automatic only until 1997, when it was later decided to end this practice by entrusting RBI to conduct such OMOs (Open Market Operations) only in the secondary market. It is only placed as a last resort.
 - The printing of new currency is inflationary in nature and increases money supply in the economy. **Hence statement 2 is not correct.**
- This is different from the "indirect" monetisation that RBI does when it conducts the Open Market Operations (OMOs) and/or purchases bonds in the secondary market.

- An escape clause in the 2017 amendment of the FRBM (Fiscal Responsibility and Budget Management Act) act permits such direct monetisation under special circumstances. **Hence statement 1 is not correct.**

Q 91.A

- **Liquidity refers to the degree to which an asset, security, or market can be bought or sold quickly without causing significant price changes.** It is a measure of how easily an asset can be converted into cash or used to facilitate transactions.
- In financial markets, **liquidity is essential because it ensures that there is a sufficient number of buyers and sellers to execute trades efficiently.** Highly liquid markets allow investors to enter or exit positions with minimal impact on the price of the asset. On the other hand, illiquid markets have fewer participants, making it more challenging to buy or sell assets without affecting their prices.
- **Cash is the most liquid of assets,** while tangible items are less liquid. The two main types of liquidity are market liquidity and accounting liquidity. Current, quick, and cash ratios are most commonly used to measure liquidity.
- **Hence, option (a) is the correct answer.**

Q 92.D

- The Monetary Policy Committee (MPC) is a committee of the Central Bank in India (Reserve Bank of India), headed by its Governor, which is entrusted with the task of fixing the benchmark policy interest rate (repo rate) to contain inflation within the specified target level.
- Monetary Policy Committee is defined in Section 2(iii) (cci) of the Reserve Bank of India Act, 1934, and is constituted under Sub-section (1) of Section 45ZB of the same Act.
- The MPC replaced the system where the RBI governor, with the aid and advice of his internal team and a technical advisory committee, had complete control over monetary policy decisions. A Committee-based approach will add a lot of value and transparency to monetary policy decisions. **Thus Statement II is correct.**
- The committee comprises six members - three officials of the Reserve Bank of India and three external members nominated by the government of India. The governor of the Reserve Bank of India is the chairperson ex officio of the committee. Decisions are taken by the majority with the governor having the casting vote in case of a tie. **Thus Statement-I is not correct.**
- **Hence option (d) is the correct answer.**

Q 93.A

- Context-The plan to build six nuclear power reactors in Maharashtra's Jaitapur, which is currently the world's biggest nuclear power generation site under consideration, has been delayed for over a decade due to issues related to India's nuclear liability law.
- **India's Civil Liability for Nuclear Damage Act (CLNDA) of 2010:**
 - **India enacted the CLNDA in 2010 to put in place a speedy compensation mechanism for victims of a nuclear accident. Hence statement 1 is correct.**
 - **Liability on Operator: The CLNDA provides for strict and no-fault liability on the operator of the nuclear plant, where it will be held liable for damage regardless of any fault on its part. Hence statement 2 is correct.**
 - **It specifies the amount the operator will have to pay in case of damage caused by an accident at ₹1,500 crore. It also requires the operator to cover liability through insurance or other financial security. Hence statement 3 is correct.**
 - If the compensation amount exceeds this cap, the central government is responsible for providing additional funds up to the rupee equivalent of 300 million Special Drawing Rights (SDRs), which is approximately INR 3,300 crore (USD 450 million).
 - **Right of recourse:** The Act addresses supplier liability in Section 17, which grants the operator a right of recourse against the supplier under certain conditions. This right of recourse can be invoked if (a) the contract between the operator and supplier contains such provisions, (b) the nuclear incident occurs due to the supplier's negligence, or (c) the supplier provided defective equipment or services that caused the incident. This provision aims to ensure accountability among suppliers and share the burden of liability in case of a nuclear accident.
 - **Claims Commission:** The Act provides for the establishment of a Nuclear Damage Claims Commission to adjudicate claims arising from nuclear accidents. This commission ensures a streamlined process for victims to seek compensation and resolves disputes between operators, suppliers, and affected individuals or communities.

- **Time limits for claims:** The CLND Act sets a time limit for filing claims for compensation. Claims related to personal injury or death must be filed within 20 years of the nuclear incident, whereas claims for damage to property must be filed within 10 years.
- **Mandatory insurance:** The Act requires nuclear plant operators to obtain insurance or financial security to cover their liability. This ensures that funds are available for compensation in the event of an accident.

Q 94.A

- **SRI Fund: Self-Reliant India (SRI) fund provides equity funding to micro, small and medium enterprises (MSMEs) in India. Hence statement 1 is correct.**
- **Its objectives:**
 - Supporting faster growth of MSME, supporting enterprises which have the potential to graduate beyond the MSME bracket and become National/International champions.
 - Supporting MSMEs which will help make India self-reliant by producing relevant technologies, goods and services.
- **SRI fund is a SEBI-registered category-II Alternative Investment Fund (AIF) announced in May 2020 that operates through a mother-fund and daughter-fund structure and aims to invest Rs 50,000 crore into MSMEs. Hence statement 2 is correct.**
- SRI fund is implemented by NSIC Venture Capital Fund Limited (NVCFL), a wholly-owned subsidiary of the government's MSME growth agency National Small Industries Corporation (NSIC). The government is the sole anchor investor in the SRI fund with the initial support of Rs 10,000 as the mother fund. The rest 80 per cent of the Rs 50,000 crore fund will be raised by daughter funds from banks, financial institutions, HNIs, and others. **Hence Statement 3 is not correct.**

Q 95.C

- **Derivatives Types of derivatives**
 - **Forwards:** A forward contract is a customized contract between two entities, where settlement takes place on a specific date in the future at today's pre-agreed price. **Hence, pair 1 is correctly matched.**
 - **Futures:** A futures contract is an agreement between two parties to buy or sell an asset at a certain time in the future at a certain price. Futures contracts are special types of forward contracts in the sense that the former are standardized exchange-traded contracts, such as futures of the Nifty index.
 - **Options:** An Option is a contract that gives the right, but not an obligation, to buy or sell the underlying at a stated date and price. While a buyer of an option pays the premium and buys the right to exercise his option, the writer of an option is the one who receives the option premium and is therefore obliged to sell/buy the asset if the buyer exercises it on him. **Hence, pair 2 is correctly matched.**
 - ✓ **Options are of two types - Calls and Puts options:**
 - "Calls" give the buyer the right but not the obligation to buy a given quantity of the underlying asset, at a given price on or before a given future date.
 - "Puts" give the buyer the right, but not the obligation to sell a given quantity of an underlying asset at a given price on or before a given future date. •
 - **Warrants:** Options generally have lives of up to one year. The majority of options traded on exchanges have a maximum maturity of nine months. Longer-dated options are called Warrants and are generally traded over the counter. **Hence, pair 3 is correctly matched.**

Q 96.D

- Fiscal policy, in simple terms, is an estimate of taxation and government spending that impacts the economy. The fiscal policy helps mobilise resources for financing projects. The central theme of fiscal policy includes development activities like expenditure on railways, infrastructure, etc. Non-development activities include spending on subsidies, salaries, pensions, etc. It gives incentives to the private sector to expand its activities.
- **Types of fiscal policy- There are two types of fiscal policy:**
 - A procyclical fiscal policy means increased government spending and reduced taxes during a boom period, and reduced spending and increased taxes during a recession. **Hence statement 2 is not correct.**
 - A countercyclical fiscal policy means reducing spending and raising taxes during a boom period, and increasing spending and cutting taxes during a recession. **Hence statement 1 is not correct.**

Q 97.C

- Open Market Operations is a tool by which the Reserve Bank of India influences money supply. Open Market Operations refers to buying and selling of bonds issued by the Government in the open market. This purchase and sale is entrusted to the Central bank on behalf of the Government.
- **There are two types of open market operations: outright and repo. Outright open market operations are permanent in nature:** when the central bank buys these securities (thus injecting money into the system), it is without any promise to sell them later. Similarly, when the central bank sells these securities (thus withdrawing money from the system), it is without any promise to buy them later. **As a result, the injection/absorption of the money is of permanent nature. Hence, statement 1 is correct.**
- There is another type of operation in which when the central bank buys the security, this agreement of purchase also has specifications about the date and price of the resale of this security. This type of agreement is called a repurchase agreement or repo.
- The **interest rate at which the money is lent in this way is called the repo rate.** Similarly, instead of an outright sale of securities the central bank may sell the securities through an agreement that has a specification about the date and price at which it will be repurchased. This type of agreement is called a reverse repurchase agreement or reverse repo. The rate at which the money is withdrawn in this manner is called the reverse repo rate. The Reserve Bank of India conducts repo and reverse repo operations at various maturities: overnight, 7-day, 14-day, etc. **Hence, statement 2 is correct.**

Q 98.A

- **Components of Balance of Payments**
 - There are two main accounts in the BoP – Current Account and Capital Account.
 - **Balance of Current Account**
 - It includes the BoT (visibles), and the balance of invisibles (services or transfer payments).
 - It is a measure of all payments made for currently produced goods and services plus non-trade flows of funds between a country and the rest of the world. **Hence, statement 1 is correct.**
 - ✓ Non-trade flows comprise Factor Income from abroad (interest, profits, wages, etc.) and **international transfer payments. Hence, statement 2 is not correct.**
 - ✓ Invisible Balance shows the value of imports and exports of services or invisible items.
- Trade-in services are denoted as invisible trade (because they are not seen to cross national borders). Services trade includes both factor and non-factor income. Factor income includes net international earnings on factors of production (like labour, land, and capital). Non-factor income is the net sale of service products like shipping, banking, tourism, software services, etc.
- Transfer payments are receipts that the residents of a country receive 'for free', without having to make any present or future payments in return. They consist of remittances, gifts and grants. They could be official or private. The balance of exports and imports of goods is referred to as the trade balance. Adding trade-in services and net transfers to the trade balance, we get the current account balance. The capital account records all international purchases and sales of assets such as money, stocks, bonds, etc.

Q 99.C

- **The International Monetary Fund (IMF) was created in 1945** with the aim to (i) foster global monetary cooperation, (ii) secure financial stability, (iii) facilitate international trade, (iv) promote high employment and (v) sustainable economic growth, and (vi) reduce poverty around the world.
- **It was established along with the International Bank for Reconstruction and Development at the Conference of 44 Nations held at Bretton Woods, New Hampshire, USA in July 1944. Hence, statement 1 is correct.**
- It was created out of a need to prevent economic crises like the Great Depression.
- With its sister organization, the World Bank, the IMF is the largest public lender of funds in the world.
- **It is a specialized agency of the United Nations Membership that is open to any country that conducts foreign policy and accepts the organization's statutes. Hence, statement 2 is correct.**
- The IMF membership currently includes **190 countries (189 UN countries and Kosovo)** that make up its near-global membership. India is a founder member of the IMF. **Hence, statement 3 is correct.**

Q 100.B

- The second plan was to set India on the path of industrialisation. P.C. Mahalanobis was the moving spirit behind the second five year plan. He gave the highest priority to strengthening the industrial base of the economy. There was emphasis on the expansion of the public sector and establishment of a socialistic pattern of society. **Hence option (b) is the correct answer.**
- Objectives:
 - A sizeable increase in national income so as to raise the level of living.
 - Rapid industrialisation of the country with particular emphasis on the development of basic and key industries.
 - A large expansion of employment opportunities by developing labour-intensive projects and small scale industries.
 - Reduction in inequalities of income and distribution.
 - To attain the annual growth rate of 5%.

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