

Q.1) Consider the following statements:

1. GNP is the more exhaustive concept of national income than the GDP as it indicates the internal as well as external strength of the economy.
2. In GNP the trans- boundary economic activities of a country is also taken into account.
3. GNP is always greater than the GDP.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 and 3 only
- c) 2 only
- d) 1 and 2 only

Q.1) Solution (d)

Explanation:

- Gross national product (GNP) refers to the total value of all the goods and services produced by the residents and net income from abroad at a given year. Here, the trans-boundary economic activities of an economy are also taken into account. The items which are counted in the segment from Abroad. **(Hence, statement 2 is correct).**
- It is the more exhaustive concept of national income than the GDP as it indicates towards the 'quantitative' as well as the 'qualitative aspects of the economy, i.e., the internal' as well as the 'external' strength of the economy. **(Hence, statement 1 is correct).**
- It enables us to learn several facts about the production behavior and pattern of an economy, such as, how much the outside world is dependent on its product and how much it depends on the world for the same (numerically shown by the size and net flow of its 'balance of trade'); what is the standard of its human resource in international parlance (shown by the size and the net flow of its 'private remittances'); what position it holds regarding financial support from and to the world economies (shown by the net flow of 'interests' on external lending/ borrowing).
- Gross national product (GNP) is an economic statistic that includes GDP, plus any income earned by residents from overseas investments, minus income earned within the domestic economy by foreign residents.
- So, the **net factor income from abroad may either be positive or negative**, depending on the production being carried out in the country. Hence, GNP might be greater than GDP, or lower than GDP. **(Hence, statement 3 is incorrect).**

Q.2) Given below are two statements, one labelled as Assertion (A) and the other labelled as Reason (R):

Assertion (A): Though India's national income has gone up several fold since independence, there has been no enormous improvement in the per capita income level.

Reason (R): More than half of the population of India are living in rural areas.

In the context of the above two statements which one of the following is correct?

- a) Both A and R are true and R is the correct explanation of A
- b) Both A and R are true but R is not a correct explanation of A
- c) A is true but R is false
- d) A is false but R is true

Q.2) Solution (b)

Explanation:

- There is no relation between the proportion of population of India living in Rural areas and Increase in India's national income.

World Bank country classifications by income level (in \$)

Group	July 1, 2021 (new)
Low income	< 1,045
Lower-middle income	1,046 – 4,095
Upper-middle income	4,096 -12,695
High income	> 12,695

- As per WB estimates, PCI of Indians in 2021 stood at \$ 2,256. (122/189).
- China -12,556 \$,USA -70,248 \$
- Bangladesh -2,457 \$, Bhutan -3.266 \$, Maldives-10,366 \$, Nepal-1,208 \$, Pakistan- 1,505 \$, Afghanistan-368 \$.

Q.3) Consider the following statements regarding laws of demand and supply:

1. The law of demand says that at higher prices, buyers will demand less of an economic good.
2. Producers supply more at a higher price because the higher selling price justifies the higher opportunity cost of each additional unit sold.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Q.3) Solution (c)

Explanation:

- Law of Demand states that “When the other factors are constant, the price of the commodity increases, the demand for that commodity decreases and the price of a commodity decreases the demand for that commodity increases. There is an inverse relationship between the price and the quantity demanded.
- The amount of a good that buyers purchase at a higher price is less because as the price of a good goes up, so buyers will purchase less goods. **(Hence, statement 1 is correct).**
- The law of supply states that at higher prices, sellers will supply more of an economic goods.
- From the seller's perspective, the opportunity cost of each additional unit that they sell tends to be higher and higher. Producers supply more at a higher price because the higher selling price justifies the higher opportunity cost of each additional unit sold. **(Hence, statement 2 is correct).**

Q.4) The term "Invisible hand" in economics is related to which of the following?

- a) Free market system
- b) Command market system
- c) Socialist market system
- d) Both B and C

Q.4) Solution (a)

Explanation:

- **Invisible hand:** Scottish thinker Adam Smith introduced the concept of Invisible hand in several of his writings, but it found this economic interpretation in his book An Inquiry into the Nature and Causes of the Wealth of Nations published in 1776.
- The invisible hand is part of laissez-faire, meaning "let do/let go," approach to the market. In other words, the approach holds that the market will find its equilibrium without government or other interventions forcing it into unnatural patterns.
- The invisible hand is a metaphor for the unseen forces that move the **free market economy**. Through individual self-interest and freedom of production as well as consumption, the best interest of society, as a

whole, are fulfilled. The constant interplay of individual pressures on market supply and demand causes the natural movement of prices and the flow of trade.

Why Is the Invisible Hand Important?

- The invisible hand allows the market to reach equilibrium without government or other interventions forcing it into unnatural patterns. When supply and demand find equilibrium naturally, oversupply and shortages are avoided. The best interest of society is achieved via self-interest and freedom of production and consumption.

Q.5) Given below are two statements, one labelled as Assertion (A) and the other labelled as Reason (R):

Assertion (A): If the GDP of the country increases it will lead to increase in the welfare of the country. Reason (R): Benefits of faster GDP growth is distributed equally among the population of a country.

In the context of the above two statements which one of the following is correct?

- Both A and R are true and R is the correct explanation of A
- Both A and R are true but R is not a correct explanation of A
- A is true but R is false
- A and R both are false

Q.5) Solution (d)

Explanation:

Limitations of using GDP as a welfare index of the country are as follows:

(i) Non-monetary exchanges

GDP measures the goods and services produced in an economy during a particular period of time. However, it does not take into account those transactions that do not come under monetary terms. In less developed countries there are non-monetary exchanges, particularly in rural areas. Hence, these transactions remain outside the domain of GDP. The household sector and volunteer sectors get ignored in GDP.

(ii) Inflation

GDP does not take into account the level of prices in a country. Because of inflation, the cost of living increases leading to a decrease in the standard of living. The loss of welfare due to this decrease is not taken into consideration by GDP as an index of welfare.

(iii) Externalities

Increase in the national income is associated with increased levels of pollution, accidents, disasters, shortage and depletion of natural resources, etc. These factors affect human health and lead to ecological degradation. GDP fails to consider the costs or valuations of such factors.

(iv) Unequal distribution of GDP

GDP disregards the income distribution pattern. The increase in aggregate national income may be a result of the increase in income of a few individuals. Thus, this may lead to false interpretation of social welfare.

(v) Welfare

GDP ignores the welfare component as the goods and services produced may or may not add to the welfare to a society. For example, the production of goods, like guns, narcotic drugs, high-end luxurious goods increase the monetary value of production, but they do not add to the welfare of the majority of population.

Q.6) Consider the following statements regarding the growth and development of a country:

1. Economic development is quantitative as well as qualitative progress in an economy.
2. Economic development is the outcome of planned and result-oriented activities.

Which of the above statements is/are correct?

- a) 1 Only
- b) 2 Only
- c) Both 1 and 2
- d) None of the above

Q.6) Solution (c)

Explanation:

We can say that economic development is quantitative as well as qualitative progress in an economy. It means, when we use the term growth we mean quantitative progress and when we use the term development we mean quantitative as well as qualitative progress.

- Economic Growth is the increase in the real output of the country in a particular span of time. Whereas, Economic Development is the increase in the level of production in an economy along with enrichment of living standards and the advancement of technology.
- Economic growth does not consider the Income from the Informal Economy. The Informal economy is unrecorded economic activity. Whereas, Economic Development takes consideration of all activities, whether formal or informal, and eases people with low standards of living a suitable shelter and with proper employment.

- Economic Growth does not reflect the depletion of natural resources. Depletion of resources such as pollution, congestion & disease. Governments are under pressure due to the environmental issues, majorly the problem is due to Global warming. However, Economic Development is concerned with Sustainability, which means meeting the needs of the present without compromising.
- Economic growth is the subset of economic development.
- Unlike economic development, Economic growth is an automatic process. Meanwhile, economic development is the outcome of planned and result-oriented activities.

Q.7) Consider the following statements:

1. The law of diminishing marginal utility holds that as we consume more of an item, the amount of satisfaction produced by each additional unit of that good declines
2. The thinking of becoming happier by becoming richer is challenged by the law of diminishing marginal utility of income.

Which of the above statements is/are correct?

- a) 1 Only
- b) 2 Only
- c) Both 1 and 2
- d) None of the above

Q.7) Solution (c)

Explanation:

- The law of diminishing marginal utility holds that as we consume more of an item, the amount of satisfaction produced by each additional unit of that good declines. The change in utility gained from utilizing an additional unit of a product is known as marginal utility.
- The thinking of becoming happier by becoming richer is challenged by the law of diminishing marginal utility of income after a certain point, the gains are very small. This means that poor people benefit far more than rich people from an added of income. **(Hence, statement 1 and statement 2 are correct).**

Q.8) Given below are two statements, one labelled as Assertion(A) and the other labelled as Reason (R):

(A) Assertion: Primary sector is the largest employer in India.

(R) Reason: It includes all those occupations which are related to man's natural environment like farming, animal rearing, etc.

- a) Both A and R are true and R is the correct explanation of A.
- b) Both A and R are true but R is not the correct explanations of A

- c) A is correct but R is wrong
- d) A is wrong but R is correct

Q.8) Solution (a)

Explanation:

They are three sectors in the Indian economy, they are; primary economy, secondary economy, and tertiary economy.

Primary Sector

The primary sector in India is the sector which is largely dependent on the availability of natural resources in order to manufacture the goods and also to execute various processes. The services in this sector are entirely dependent on the availability of the natural resources in order to keep the day-to-day operations running.

As we have the clear idea of this sector is, the best example to discuss in this sector is the agriculture sector. The other examples in this sector include fishing and forestry, but agriculture accounts for the largest in this sector.

The primary sector provides employment to around 42 % of India's workforce. **(Hence, both statement 1 and statement 2 are correct).**

Q.9) Which of the following are considered to be leakages in the model of Circular Flow of National Income?

1. Savings
2. Taxes paid to the Government
3. Investment
4. Exports

Select the correct answer using the code given below:

- a) 1 and 2 only
- b) 2 and 3 only
- c) 2, 3 and 4 only
- d) 1, 2, 3 and 4

Q.9) Solution (a)

Explanation:

The Circular Flow of National Income refers to continuous circular flow of money income and flow of goods between different sectors of the economy. A 'leakage' is the amount of money which is withdrawn from the flow of income, whereas 'injections' are the amount of money that is added to the flow of income in the economy.

Thus, Savings; Taxes by households and firms; and Import spending constitute a leakage from the Circular Flow of Income.

On the other hand, Investment spending; Government spending; and Export earnings becomes 'injections' into the Circular Flow of Income.

Q.10) Which of the following factors is/are taken into consideration for the calculation of Gross Domestic Product (GDP) at basic price?

1. Cost of factors of production
2. Production taxes and subsidies
3. Product taxes and subsidies

Select the correct answer using the code given below:

- a) 1 only
- b) 1 and 2 only
- c) 2 and 3 only
- d) 1, 2 and 3

Q.10) Solution (b)

Explanation:

The GDP is calculated by taking into account 3 different prices –

- **Factor Cost:** Cost of factors of production, such as land, labour and capital.
- **Basic Price:** Factor Cost + Production Taxes - Production Subsidies.
- **Market Price (Price expected to be paid by the consumer):** Basic Price + Product Taxes - Product Subsidies.

Hence, GDP at Basic Price = GDP at Factor Cost + Production Taxes - Production Subsidies.

Q.11) Consider this example: A particular country produces only apples. If the number of apples produced in a year increases by 10% and the prices fall by 10%, which of the following would occur?

- a) Real GDP would increase, while nominal GDP would decrease.
- b) Real GDP would increase, while nominal GDP remains unchanged.
- c) Real GDP would remain unchanged, while nominal GDP would increase.
- d) Real GDP would decrease, while nominal GDP would increase.

Q.11) Solution (a)

Explanation:

- The Gross Domestic Product (GDP) refers to the market value of all final goods and services produced within an economy. It can be calculated into two ways:
- **Nominal GDP:** It refers to the GDP at the current market prices, i.e., the GDP is calculated as per the market prices for the year for which the GDP is calculated.
- **Real GDP:** It refers to the GDP at the base year prices, i.e., the GDP is calculated as per the market prices in the base year. Thus, the Real GDP negates the inflation in goods and services.

Q.12) Consider the following statements about Human Development Index:

1. The index is released as part of the World Development Report.
2. Income, Longevity and Education have equal weights in the index.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Q.12) Solution (b)

Explanation:

- Human Development Index: Human Development Index is released by the United Nations Development Programme (UNDP) as part of the Human Development Report.
- Income, Longevity and Education have equal weights in the index.

Q.13) Consider the following statements about Multi-Dimensional Poverty Index.

1. This indicator does not take into account the income of people.
2. The indicator is released by Oxford Poverty & Human Development Initiative and UNDP.
3. Access to sanitation, access to higher education and women empowerment are indicators used in the index.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 and 3 only
- c) 1 and 2 only
- d) 1, 2 and 3

Q.13) Solution (c)

Explanation:

- **Multi-Dimensional Poverty Index:** The Index is released by the Oxford Poverty & Human Development Initiative at the University of Oxford and the Human Development Report Office of the United Nations Development Programme. The global Multidimensional Poverty Index (MPI) measures the **complexities of poor people's lives, individually and collectively**, each year. This report focuses on how multidimensional poverty has declined.

Dimensions of Poverty	Indicator	Deprived if living in the household where...	Weight
Health	Nutrition	Any adult under 70 years of age or any child for whom there is nutritional information is undernourished.	1/6
	Child mortality	Any child under the age of 18 years has died in the family in the five year period preceding the survey.	1/6
Education	Years of schooling	No household member aged 'school entrance age + six years or older has completed six years of schooling.	1/6
	School attendance	Any school-aged child is not attending school up to the age at which he/she would complete class eight.	1/6
Standard of living	Cooking Fuel	The household cooks with dung, wood, charcoal or coal.	1/18
	Sanitation	The household's sanitation facility is not improved (according to SDG guidelines) or it is improved but shared with other households.	1/18
	Drinking Water	The household does not have access to improved drinking water (according to SDG guidelines) or improved drinking water is at least a 30-minute walk from home, round trip.	1/18
	Electricity	The household has no electricity.	1/18
	Housing	At least one of the three housing materials for roof, walls and floor are inadequate: the floor is of natural materials and/or the roof and/or walls are of natural or rudimentary materials.	1/18
	Assets	The household does not own more than one of these assets: radio, television, telephone, computer, animal cart, bicycle, motorbike or refrigerator, and does not own a car or truck.	1/18

Q.14) Consider the following statements about Purchasing Power Parity (PPP):

1. Purchasing Power Parity measures the purchasing power of currencies of different countries.
2. India's share of world's GDP on PPP terms is more than twice of India's share of world's GDP based on nominal exchange rates.
3. International Monetary Fund computes GDP of countries based on PPP.

Which of the statements given above are correct?

- a) 1 and 2 only
- b) 1 and 3 only
- c) 2 and 3 only
- d) 1, 2 and 3

Q.14) Solution (a)

Explanation:

- Purchasing Power Parity (PPP) measure the total amount of goods and services that a single unit of a country's currency can buy in another country.
- The PPP between countries A and B measures the amount of country A's currency required to purchase a basket of goods and services in country A as compared to the amount of country B's currency to purchase a similar basket of goods and services in country B.
- PPP can, thus, be used to convert the cost of a basket of goods and service into a common currency while eliminating price level differences across countries. In other words, PPPs equalize the purchasing power of currencies.
- The International Comparison Program (ICP), is a worldwide statistical initiative led by the World Bank under the auspices of the United Nations Statistical Commission, with the main objective of providing comparable price and volume measures of gross domestic product (GDP) and its expenditure aggregates among countries within and across regions.
- Due to large differences in price levels across economies, market exchange rate converted GDP does not accurately measure the relative sizes of economies and the levels of material well-being. PPPs make it possible to compare the output of economies and the welfare of their inhabitants in 'real' terms, thus controlling for price level differences across countries.

Q.15) Consider the following statements related to the GDP Deflator:

1. The GDP Deflator measures inflation in the fixed basket of goods and services in an economy.
2. The GDP Deflator does not take into account exports and imports.

Which of the statements given above is/are correct?

- a) 1 only

- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Q.15) Solution (d)

Explanation:

- Measure of inflation calculated as the ratio of GDP at current prices to GDP at constant prices. The GDP Deflator takes into account all the goods and services in the economy (including exports). However, it excludes the price of imports.

Criteria CPI	(Consumer Price Index)	GDP Deflator
Commodities covered	Fixed basket of goods and services consumed by the people.	All the goods and services produced within India.
Imported goods covered	Yes.	No.
Basket of goods	Remains the same.	Changes.
Weightage of different goods	Explicitly defined.	Market value of goods and services.
Frequency	Monthly	Quarterly.

Q.16) Which of the following is/are NOT “mixed economy” characteristics?

1. Co-existence of private and public sector
2. Private property is not allowed
3. Economic planning
4. Profit Motive and Social Welfare

Select the correct answer using the code given below:

- a) 1, 3 and 4 only
- b) 2 only
- c) 1 and 4 only
- d) 2 and 3 only

Q.16) Solution (b)

Explanation:

Mixed economy is a golden mixture of capitalism and socialism.

- Under this system there is freedom of economic activities and government interferences for the social welfare. Hence it is a blend of both the economies.
- The concept of mixed economy is of recent origin. The developing countries like India have adopted mixed economy to accelerate the pace of economic development.
- Even the developed countries like UK, USA, etc. have also adopted 'Mixed Capitalist System'.

Mixed economy has following main features:

- Co-existence of Private and Public Sector
- Personal Freedom
- Private Property is allowed
- Economic Planning
- Price Mechanism and Controlled Price
- Profit Motive and Social Welfare

Q.17) Which of the following contributes the highest share to India's GDP?

- a) Government Final Consumption Expenditure (GFCE)
- b) Private Final Consumption Expenditure (PFCE)
- c) Gross Capital Formation
- d) Net Exports

Q.17) Solution (b)

Explanation:

- According to the Expenditure Method, GDP is calculated as $C+G+I+(X-M)$, where C denotes the Private Final Consumption Expenditure (PFCE), G denotes the Government Final Consumption Expenditure (GFCE), I denotes Investments, X denotes Exports and M denotes Imports. The PFCE, accounting for around 55% of India's GDP is the major driver. The Net Exports (Exports- Imports), accounting for around -3% of India's GDP, has the lowest share.

Q.18) If the Gross Domestic Product (GDP) of a particular country "X" is equal to the Gross National Product (GNP), what does it denote?

- The country "X" has adopted the 'closed economic model'.
- The country "X" does not receive any foreign investments.
- Net Factor Income from abroad for the country "X" is zero.
- The country "X" has adopted the 'open economic model'.

Q.18) Solution (c)

Explanation:

- The Gross Domestic Product (GDP) measures the value of goods and services produced within a country's borders, by both the citizens and the non- citizens. On the other hand, the Gross National Product (GNP) measures the value of goods and services produced by only a country's citizens, but both domestically and abroad.
- $GNP = GDP + \text{Income earned by the Indians outside India} - \text{Income earned by the foreigners within India}$.
- $GNP = GDP + \text{Net Factor Income from Abroad (NFIA)}$.
- Hence, if the Gross Domestic Product (GDP) of a particular country is equal to the Gross National Product (GNP), it necessarily denotes that the Net Factor Income from abroad is zero.**

Q.19) " Agriculture in a particular country has become unprofitable due to rising input costs and lower yields, leading to a decline in farmers' income levels. In comparison, people working in manufacturing sector earn almost 3 times more than farmers. On account of this, a greater number of farmers give up agriculture and find employment in the manufacturing sector"

Which of the following best describes the scenario in terms of opportunity cost?

- Opportunity cost for the farmers is higher.
- Opportunity cost for the farmers is lower.
- Opportunity cost of the worker in the manufacturing sector is higher.
- Opportunity cost is the same for both the farmers and the workers.

Q.19) Solution (a)

Explanation:

- Opportunity Cost:** are the benefits that are lost while choosing one alternative in place of others.
- If a particular person decides to engage in agricultural activities, he forgoes the benefit of being employed in the manufacturing sector. For example, his monthly income from agriculture could be around Rs. 10,000. But, a worker employed in the manufacturing sector earns almost 3 times higher – Rs. 30,000. So, the benefit which the farmer forgoes can be considered as 'Opportunity Cost'.

- Hence, if a person decides to engage in agriculture, rather than manufacturing, then his opportunity cost is quite higher.
- Hence, if a person decides to engage in agriculture, rather than manufacturing, then his opportunity cost is quite higher.

Q.20) Depreciation is equal to which of the following?

- Gross national product minus Personal income
- Personal income minus Personal taxes
- Net national product minus Gross national product
- Gross national product minus Net national product

Q.20) Solution (d)

Explanation:

- Net national product at market price is the market value of the output of final goods and services produced at the current price in one year of a country. If we subtract the depreciation charges from the gross national product, we get the net national product at market price.
- Depreciation is equal to Gross National Product (GNP) minus Net National Product (NNP)
- **Depreciation cost:** The monetary value of an asset decreases over time due to use, wear and tear or obsolescence. This decrease is measured as depreciation.

Q.21) Consider the following statements about National Integrated Database on Arrested Narco-offenders (NIDAAN) Portal

1. It is a database of arrested narcotics offenders, developed by the Narcotics Control Bureau, under the aegis of the Ministry of Home Affairs.
2. The NIDAAN platform sources its data from the inter-operable criminal justice system (ICJS) and the e-Prisons repository.
3. The ICJS, an initiative of the Supreme Court e-committee, was created to enable seamless transfer of data among criminal justice system.

Choose the correct statements:

- 1 and 2
- 1 and 3
- 2 and 3
- 1, 2 and 3

Q.21) Solution (d)

Explanation:**NIDAAN Platform**

- A first-of-its kind database of arrested narcotics offenders has been made operational for use.
- The portal, **NIDAAN or the National Integrated Database on Arrested Narco-offenders, has been developed by the Narcotics Control Bureau (NCB).**
- It is part of the narcotics coordination mechanism (**NCORD**) portal that was launched by Union Home Minister. Hence statement 1 is correct.
- The **NIDAAN platform sources its data from the ICJS (inter-operable criminal justice system) and the e-Prisons (a cloud-based application) repository. Hence statement 2 is correct**
- It is planned to integrate it in the future with the crime and criminal tracking network system or CCTNS.
- The **ICJS, an initiative of the Supreme Court e-committee**, was created to enable seamless transfer of data and information among different pillars of the criminal justice system, like courts, police, jails and forensic science laboratories, from one platform. Hence statement 3 is correct.
- Any agency can search for the crime history, personal details, fingerprints, court cases and appeals made etc. with regard to a drug offender from any part of the country.
- A distinct feature called 'criminal network' on the portal can also be accessed by agencies, as part of which specific links of an accused to other crimes, linked police FIRs and those who visited them in jail can also be accessed.

Source: [CLICK HERE](#)

Q.22) Consider the following statements

1. Bioplastics are made from corn, sugar, vegetable oils, and other renewable materials.
2. Polyhydroxyalkanoates (PHA) are manufactured using microorganisms that ferment with canola oil.
3. Stitches to treat wounds are made of a bioplastic thread that harmlessly dissolves into the body.

Choose the incorrect statements:

- a) 2 only
- b) 3 only
- c) 2 and 3
- d) None

Q.22) Solution (d)

Explanation:

- Bioplastics are plastic materials **produced from renewable biomass sources**, such as vegetable fats and oils, corn starch, straw, woodchips, sawdust, recycled food waste, etc.
- **Polyhydroxyalkanoates or PHAs** are an emerging class of bioplastics in the latter category, i.e. they are bio-based and biodegradable.
- **Polyhydroxyalkanoates (PHA)** are manufactured using microorganisms that ferment with canola oil.

- Polylactic acid or polylactide (PLA) is a polyester derived from renewable biomass, typically from fermented plant starch, such as corn, cassava, sugarcane, or sugar beet pulp.
- **Bioplastics have long been used in medical applications.**
- For example, stitches are often made of a bioplastic thread that harmlessly dissolved into the body.

Source: [CLICK HERE](#)

Q.23) Consider the following statements

1. Nuclear Command Authority (NCA) is India's nodal authority responsible for command, control and operational decisions regarding India's nuclear weapons programme.
2. The Executive Council of NCA is chaired by Prime Minister of India and it authorises a nuclear attack if need be.
3. The strategic forces command (SFC) is in charge of the nuclear forces' administration and would be in charge of firing nuclear weapons.

Choose the incorrect statements:

- a) 2 and 3
- b) 1 only
- c) 2 only
- d) 1 and 2

Q.23) Solution (c)

Explanation:

- **Nuclear Command Authority (NCA) is India's nodal authority** responsible for command, control and operational decisions regarding India's nuclear weapons programme. **Hence statement 1 is correct.**
- It has **Executive Council and Political Council.**
- The **Executive Council is chaired by the National Security Adviser (NSA).**
- It gives inputs to the Political Council, which authorises a nuclear attack if need be.
- The Political Council is chaired by the Prime Minister and is advised by the Executive Council. **Hence statement 2 is not correct.**
- The NCA's directives are executed by the **Strategic Forces Command.**
- The strategic forces command (SFC) would be in charge of the nuclear forces' administration and would be in charge of firing nuclear weapons. Hence statement 3 is correct.

Source: [CLICK HERE](#)

Q.24) Consider the following statements about Aranmula mirror

1. It is from the State of Kerala and is the first ever product to receive GI tag from the State.
2. The uniqueness of this mirror is its front reflection, unlike the back reflection in normal glass mirrors.

Choose the correct code:

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Q.24) Solution (c)

Explanation:**Aranmula mirror (rare metal alloy mirror)**

- **It literally means the mirror of Aranmula, a small town in Pathanamthitta district, Kerala.**
- It was the first craft item from the **state to receive a geographical indication tag** in 2005.
- The alloy formula they use is a secret passed down through generations.
- **The uniqueness of this mirror is its front reflection, unlike the back reflection in normal glass mirrors.**
- This means the reflective surface is placed on a back support, as opposed to regular mirrors where the reflective surface is behind glass.
- A first-surface mirror or front-surface mirror is a mirror with the reflective surface being above a backing.
- First-surface mirrors are made for applications requiring a strict reflection without a ghosting effect.
- Reflecting telescopes, rear-projection televisions, periscopes, non-reversing mirrors, high-quality kaleidoscopes, and the animation process Spectrafocus use this type of mirror.
- These mirrors also have a cultural significance in Kerala, they are regarded as one of the eight auspicious objects (ashtamangalya) displayed during religious festivals or auspicious occasions and ceremonies.

Source: [CLICK HERE](#)

Q.25) Consider the following statements

1. The Vice President (VP) is the second highest constitutional office in India.
2. The Electoral College of the VP consists of both elected and nominated members from Lok Sabha and Rajya Sabha.
3. VP can be removed from his office by a resolution raised only in Rajya sabha and passed by effective majority by Lok Sabha.

Choose the correct statements:

- a) 1 and 2
- b) 1 only

- c) 2 and 3
- d) 1, 2 and 3

Q.25) Solution (a)

Explanation:

- The **Vice President is the second highest constitutional office** in India. The Vice President is the ex-officio Chairperson of the Council of States/Rajya Sabha. **Hence statement 1 is correct.**
- As per **Article 66** of the Constitution of India, the Vice-President is elected by the members of the Electoral College.
- He is elected in accordance with the system of proportional representation by means of the single transferable vote and the voting at such election shall be by secret ballot

Electoral College consists of:

- **Elected and nominated members from Lok Sabha and Rajya Sabha only. Hence statement 2 is correct.**

Removal of Vice-president

- A formal impeachment like in the case of the President of India is not required for the removal of Vice-President
- VP can be removed from his office by a resolution raised only in Rajya sabha, passed by effective majority & agreed upon by simple majority in Lok sabha.
- Prior to passing the resolution in Rajya sabha, a 14 days notice should be served to the Vice President.

Source: [CLICK HERE](#)

Q.26) The ratio of a two-digit natural number to a number formed by reversing its digits is 4:7. Which of the following is the sum of all the numbers of all such pairs?

- a) 99
- b) 198
- c) 330
- d) 132

Q.26) Solution (c)

Explanation:

Let the two digit number be $10a + b$ and the number formed by reversing its digits be $10b + a$.

$$10a+b/10b+a = 4/7$$

$$70a + 7b = 40b + 4a$$

$$66a = 33b$$

Therefore, $a/b = 1/2$

So, let us list down all possible values for a and b

a	b	Number	Reversed number
1	2	12	21
2	4	24	42
3	6	36	63
4	8	48	84

Hence, the sum of all the numbers would be,

$$12 + 21 + 24 + 42 + 36 + 63 + 48 + 84 = 330.$$

Q.27) Sudarma starts a Saloon business with Rs 36,000. Upon hearing about the profitability of the business he is joined by his friend Divya after a certain period of time, who invests Rs 27,000. At the end of the year they divide the profit in the ratio of 8:3. For what period did Divya join Sudarma?

- a) 6 months
- b) 8 months
- c) 7 months
- d) 5 months

Q.27) Solution (a)

Explanation:

Ratio of profit = capital of Sudarma *time/ capital of Divya *time

Let Divya's investment be for x months.

$$\text{Then, } 8/3 = (36,000*12) / (27,000*x)$$

On solving $x = 6$ months

Q.28) St. Johns school has 3 classes, X, Y and Z. The strengths of Classes X, Y and Z are in the ratio 2:3:5 respectively. The average score of Class Y is 16 more than the average score of class Z. Find the difference between averages of class X and class Z if the average score of the school is 2 less than the average score of Class X.

- a) 10.2
- b) 9.5
- c) 7.8
- d) 8.5

Q.28) Solution (d)

Explanation:

Let average in class Z = a.

Average of class Y = a + 16.

Average of class X = b

$$b = 2 + (20b + 30(a + 16) + 50a) / 100$$

$$(b - 2) * 10 = 2b + 3a + 48 + 5a$$

$$10b - 20 = 2b + 8a + 48$$

$$8b - 8a = 68$$

$$b - a = 8.5.$$

This is the difference between average of class X and class Z.

Q.29) In an Olympic relay competition 3 sprinters Usain Bolt, Justin Gatlin and Carl Lewis decide to run around a circular track. They start at the same time and run in the same direction. Usain Bolt is the quickest and when he finishes a lap, it is seen that Carl Lewis is as much behind Justin Gatlin as Justin Gatlin is behind Usain Bolt. When Usain Bolt completes 3 laps, Carl Lewis is in the exact same position on the circular track as Justin Gatlin was when Usain Bolt finished 1 lap. Find the ratio of the speeds Usain Bolt, Justin Gatlin and Carl Lewis.

- a) 5 : 4 : 2
- b) 4 : 3 : 2
- c) 5 : 4 : 3
- d) 3 : 2 : 1

Q.29) Solution (c)

Explanation:

Let track length be equal to 't'. When Usain Bolt completes a lap, let us assume Justin Gatlin has run a distance of (t - d). At this time, Carl Lewis should have run a distance of (t - 2d).

After 3 laps Carl Lewis is in the same position as Justin Gatlin was at the end of one lap. So, the position after 3t - 6d should be the same as t - d. Or, Carl Lewis should be at a distance of d from the end of the lap.

Carl Lewis will have completed less than 3 laps (as he is slower than Usain Bolt), so he could have travelled a distance of either t - d or 2t - d.

$$\Rightarrow 3t - 6d = t - d$$

$$\Rightarrow 2t = 5d$$

$$\Rightarrow d = 0.4t$$

The distances covered by Usain Bolt, Justin Gatlin and Carl Lewis when Usain Bolt completes a lap will be t, 0.6t and 0.2t respectively. Or, the ratio of their speeds is 5 : 3 : 1.

In the second scenario, $3t - 6d = 2t - d \Rightarrow t = 5d \Rightarrow d = 0.2t$.

The distances covered by Usain Bolt, Justin Gatlin and Carl Lewis when Usain Bolt completes a lap will be t, 0.8t and 0.6t respectively. Or, the ratio of their speeds is 5 : 4 : 3.

Read the following passage and answer the item that follow. Your answer to these items should be based on the passages only

Passage 1

Nineteenth-century liberals recognized that democracy comes in various forms, and dreaded the version advocated by Rousseau, in which an inspired lawgiver interprets and implements the will of the people. Nowadays such fears are dismissed as elitist. But the old-fashioned liberals grasped a vital truth: popular government has no necessary connection with the freedom of individuals or minorities. Of course, liberals today will say this can be remedied by installing the rule of constitutional rights. Such systems are fragile, however, and count for nothing when large sections of society are indifferent or actively hostile to liberal values. Where this is the case, democracy means not much more than the tyranny of the majority.

Q.30) Which of the following can be logically deduced from the given passage?

- Inspired lawgivers in liberal democracies are better equipped to interpret and implement the will of the people than in illiberal democracies.
- Nineteenth-century liberals believed that democracy means not much more than the tyranny of the majority.
- Constitutional rights are fragile and ineffective in ensuring protection of the freedom of individuals in any democracy.

- d) Popular governments in illiberal democracies use the power of the majority to clamp down on the freedom of minorities.

Q.30) Solution (d)

Explanation:

Now let us look at the options given to see which one sums up the paragraph best:

Option a: We can rule this option out straight away, as this is not what the paragraph says. The paragraph does not talk about lawgivers in liberal democracies as better equipped to interpret the will of the people as compared to those in illiberal democracies.

Option b: Again, this is not what the paragraph states. Nineteenth-century liberals only dreaded the version of democracy where the lawgiver declares himself to be the interpreter and implementer of the will of the people. They did not equate democracy to the tyranny of the majority.

Option c: The paragraph does declare that constitutional rights are fragile and not effective in protecting freedom of individuals and minorities. But this is in the specific context where “when large sections of society are indifferent or actively hostile to liberal values. That is, in illiberal democracies constitutional rights provide little by way of support to minorities. However, option c generalizes this to say that constitutional rights are fragile and ineffective in any democracy. This is not what the paragraph says.

Option d: This option sums up the main idea of the paragraph best. In illiberal democracies, where the majority is indifferent or actively hostile to liberal values, popular governments use the power of majority to clamp down on the freedom of minorities.