

**Q.1) Consider the following statements with regards to trends of Below Poverty Line (BPL) Population in India after New Economic Reforms (1991):**

1. The percentage of BPL Population in India has declined in both rural and urban areas.
2. Poverty Percentage declined at the initial stage of 1991 reforms, especially from 1993-94 to 2004-05. But Poverty Percentage increased during 2004-05 to 2011-12
3. The gap between the percentage of BPL population in rural and urban areas has considerably reduced.

Which of the statements given above is/are **incorrect**?

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

Q.1) Solution(c)

**Explanation:**

- There are two conclusions on trends in poverty. The first one, shown in a World Bank study by Gaurav Datt and others, is that poverty declined by 1.36 percentage points per annum after 1991, compared to that of 0.44 percentage points per annum prior to 1991. Their study shows that among other things, urban growth is the most important contributor to the rapid reduction in poverty even though rural areas showed growth in the post-reform period. **(Hence statement 1 is correct)**
- The second conclusion is that in the post-reform period, poverty declined faster in the 2000s than in the 1990s. The official estimates based on Tendulkar committee's poverty lines shows that poverty declined only **0.74 percentage points per annum during 1993-94 to 2004-05**. But **poverty declined by 2.2 percentage points per annum during 2004-05 to 2011-12**. Around 138 million people were lifted above the poverty line during this period. This indicates the success of reforms in reducing poverty **(Hence statement 2 is incorrect)**
- The gap between the absolute number of poor in rural and urban areas has got reduced whereas in the case of ratio, the gap has remained the same until 1999-2000 and has **widened in 2004-05**. **(Hence statement 3 is incorrect)**

**Q.2) Consider the following statements about 'Production Linked Incentive Scheme for Food Processing Industry' (PLISFPI):**

1. It is being implemented by the Ministry of Commerce and Industry.
2. This Scheme will be implemented over a six year period from 2021-22 to 2026-27.

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.2. Solution (b)

**Explanation:**

- Production Linked Incentive Scheme for Food Processing Industry' (PLISFPI) is being implemented by the Ministry of Food Processing Industries (MoFPI). **(Hence, statement 1 is incorrect).**
- As a part of Prime Minister's announcement of Aatmanirbhar Bharat Abhiyan, Government of India has approved a new Central Sector Scheme namely 'Production Linked Incentive Scheme for Food Processing Industry' for implementation during 2021-22 to 2026-27 to support creation of global food manufacturing champions commensurate with India's natural resource endowment and support Indian brands of food products in the international markets. **(Hence, statement 2 is correct).**

**Q.3) Consider the following statements related to Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) 2005:**

1. It provides for 100 days of guaranteed wage employment to the rural households who volunteer to do unskilled manual work.
2. Priority is given to works where at least one third of wage seekers are women.
3. It provides employment only to the identified BPL Families in the rural areas.

Which of the statements given above is/are correct?

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

Q.3) Solution (b)

**Explanation:**

- MGNREGA aims to enhance livelihood security in rural areas by providing at least 100 days of wage employment in a financial year to every household whose adult members volunteer to do unskilled manual work. **(Hence statement 1 is correct)**
- Another aim of MGNREGA is to create durable assets (such as roads, canals, ponds and wells). Employment is to be provided within 5 km of an applicant's residence, and minimum wages are to be paid. If work is not provided within 15 days of applying, applicants are entitled to an unemployment allowance. Thus, employment under MGNREGA is a legal entitlement.
- As per the MGNREGA, **any adult non-skilled worker from a rural region of India will be eligible to get a guaranteed job under the 100-day job scheme every financial year.** If an individual enrolls himself under this scheme, he will be eligible for a job within 15 days from the date of registration under the act. **(Hence statement 3 is incorrect)**

**Target Group**

- Scheme is open to all rural households who are in need of wage employment and desire to do manual and unskilled work.
- Period of employment should ordinarily be at least fourteen days continuously with not more than six days in a week.
- Priority to works where at least **one third of wage seekers are women.** **(Hence statement 2 is correct)**
- Persons desirous for work may submit their applications to the Gram Panchayat.
- Gram Panchayat shall register the household. After verification, job card is to be issued to the applicant household.

**Q.4) What should India do to obtain full benefits of demographic dividend?**

1. Promote skill development
2. Introduce more social security schemes
3. Improving the Total Factor Productivity
4. Privatize higher education
5. A transition from agriculture to non-agriculture sectors

Which of the statements given above are correct?

- a) 1, 2 and 4 only
- b) 1, 3 and 4 only
- c) 1, 3 and 5 only
- d) 1, 2, 3, 4 and 5

Q.4) Solution (c)

**Explanation:**

- Development of skills, at a young age, right at the school level, is very essential to channelize them for proper job opportunities. **(Hence statement 1 is correct)**
- There should be a balanced growth in all the sectors and all jobs should be given equal importance. Every job aspirant would be given training in soft skills to lead a proper and decent life.
- Skill development would reach the rural and remote areas also. Corporate educational institutions, non-government organizations, Government, academic institutions, and society would help in the development of skills of the youths so that better results are achieved in the shortest time possible.
- The country can reap the demographic dividend by **improving the Total Factor Productivity, a transition from agriculture to non-agriculture sectors such as manufacturing/service sector**, and from unorganized sector to the organized. **(Hence statements 3 and 5 are correct)**
- **Introducing social security schemes will not provide any permanent jobs and might** even increase the dependence on the government. Reducing Infant mortality rates will have outcomes on the population and is **not related to obtaining benefits** from the demographic dividend. Privatisation of higher education may or may not improve the quality and access to duration. **(Hence statements 2 and 4 are incorrect)**

**Q.5) Consider the following statements with reference to Human Development Index (HDI):**

1. The Human Development Index (HDI) ranks countries on the basis of their performance in key areas of health, education and standard of living.
2. The Annual report of HDI is released by UNDP.
3. India ranks 132 out of 191 countries in the Human Development Report 2021-2022.

Select the correct answer using the code given below:

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

Q.5) Solution (d)

**Explanation:**

- The Human Development Index (HDI) is a composite index that measures the average achievements in a country in three basic dimensions of human development. These basic dimensions are a long and healthy life, knowledge and a decent standard of living. **(Hence statement 1 is correct)**
- India ranks 132 out of 191 countries. A report on the 2021 Human Development Index (HDI) is part of the Human Development Report 2021-2022 released by the **United Nations Development Programme. (Hence statements 2 and 3 are correct)**

**Q.6) 'Soft loan window', which provides concessional loans to the less developed countries is given by:**

- a) ADB
- b) IMF
- c) IBRD
- d) IDA

Q.6) Solution (d)

**Explanation:**

- A soft loan is a loan with no interest or a below-market rate of interest. The International Development Association (IDA) is known as the 'soft loan' window of the World Bank since it offers concessional loans and grants to the world's poorest developing countries.

**Q.7) Consider the following pairs of economic terms related to employment and their definition:**

	<b>Economic Term</b>	<b>Definition</b>
1	Labour Force Participation Rate	(Labour force/ Total population) X 100
2	Work Participation Rate	(Workers/Total population) X 100
3	Worker Population Ratio	Number of persons employed per 1000 persons

Which of the pairs given above is/are correctly matched?

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

Q.7) Solution (c)

**Explanation:**

- The Labour Force Participation Rate is calculated by expressing the number of persons in the labour force as a percentage of the **working-age population not Total population. (Hence Pair 1 is incorrectly matched)**. The labour force is the sum of the number of persons employed and the number of persons unemployed. Thus, the measurement of the Labour Force Participation Rate requires the measurement of both employment and unemployment.
- The Work Participation Rate (WPR) is defined as the percentage of total workers to the total population. **(Hence Pair 2 is correctly matched)**
- The worker Population Ratio is defined as number of persons per 1000 persons. **(Hence Pair 3 is correctly matched)**

**Q.8) Consider the following statements regarding the Rangarajan Committee:**

1. The Rangarajan Committee estimation is based on an independent large survey of households by the Centre for Monitoring Indian Economy (CMIE).
2. According to the report of the Committee, the new poverty line should be Rs. 100 in rural areas and Rs. 165 in urban areas.
3. As per the Committee estimates 29.5% of the population in India is living below poverty line.

Which of the statements given above are correct?

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

Q.8) Solution (c)

**Explanation:**

- The Expert Group under the Chairmanship of Dr. C. Rangarajan to Review the Methodology for Measurement of Poverty in the country constituted by the Planning Commission in June 2012 has submitted its report on 30th June 2014.
- According to the report of the Committee, the new poverty line should be Rs. 32 in rural areas and Rs. 47 in urban areas. The earlier poverty line figure was Rs. 27 for rural India and Rs. 33 for urban India. (poverty line is estimated as Monthly Per Capita Expenditure of Rs. 1407 in urban areas and Rs. 972 in rural areas) **(Hence statement 2 is incorrect)**
- The Rangarajan Committee estimation is based on an independent large survey of households by the Centre for Monitoring Indian Economy (CMIE). It has also used different methodology wherein a household is considered poor if it is unable to save. **(Hence statement 1 is correct)**
- Based on this methodology, the Rangarajan Committee estimated the number of poor were 19 per cent higher in rural areas and 41 per cent more in urban areas, than what was estimated using the Tendulkar Committee formula.
- A committee headed by former RBI governor C Rangarajan has said that the number of poor in India was much higher in 2011-12 at 29.5% of the population, which means that 3 out of 10 persons are poor. **(Hence statement 3 is correct)**

**Q.9) Which of the following statements is/are correct about disguised unemployment?**

1. It is unemployment that affects aggregate output.
2. An economy demonstrates disguised unemployment when productivity is low and too many workers are filling too few jobs.
3. The marginal productivity in case of disguised unemployment is zero

Select the correct answer using the code given below:

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

Q.9) Solution (d)

**Explanation:**

- Disguised unemployment exists where part of the labour force is either left without work or is working in a redundant manner where worker productivity is essentially zero.
- It is unemployment that does **not affect aggregate output. ( Hence statement 1 is incorrect)** An economy demonstrates disguised unemployment when productivity is low and too many workers are filling too few jobs. The marginal productivity in case of disguised unemployment is zero. **(Hence statements 2 and 3 are correct)**
- Disguised unemployment exists frequently in developing countries whose large populations create a surplus in the labour force. It can be characterized by low productivity and frequently accompanies informal labour markets and agricultural labour markets, which can absorb substantial quantities of labour.

**Q.10) Consider the following schemes:**

1. MGNREGA
2. PM Ujjwala Yojana
3. Ayushman Bharat Yojana
4. Deendayal Antyodaya Yojana - National Rural Livelihoods Mission (NRLM)

Which of the above Schemes is/are available only for BPL (Below Poverty Line) households?

- a) 1 only



- b) 1, 2 and 3 only
- c) 1 and 4 only
- d) None of the above

Q.10) Solution (d)

**Explanation:**

- MGNREGA – 100 days of work for any household. **(Hence scheme is not mandated to BPL only)**
- PM Ujjwala Yojana – In the original form, Ujjwala Yojana, in 2016, was extended to only BPL household women. Now it is extended to **all poor households. (Hence scheme is not mandated to BPL only)**
- Ayushman Bharat Yojana – Targets over 10 crore families belonging to poor and vulnerable population based on Socio Economic and Caste Census 2011 (SECC). **The beneficiaries are not mandatorily BPL. (Hence scheme is not mandated to BPL only)**
- Deendayal Antyodaya Yojana - National Rural Livelihoods Mission: The NRLM target households are identified through the **Participatory Identification of Poor (PIP)** instead of the BPL. The PIP is a community driven process, where the community based organizations themselves identify the poor and vetted by the Gram Sabha. **(Hence scheme is not mandated to BPL only)**

**Q.11) Which of the following is/are not a feature(s) of developing countries?**

1. Low rate of growth of population
2. Low rate of capital formation
3. Low social indicators of development
4. Low level of unemployment

Select the correct answer using the code given below:

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

Q.11) Solution (a)

**Explanation:**

**Common features of developing countries are:**

- Low per capita income;
- Poor level of living;
- High rate of growth of population; **(Hence statement 1 is incorrect)**
- Highly in equal income distribution;
- Prevalence of mass poverty;
- Low levels of productivity;
- Low rate of capital formation **(Hence statement 2 is correct)**
- Technological backwardness;
- High level of unemployment; **(Hence statement 4 is incorrect)**
- Low social indicators of development. **(Hence statement 3 is correct)**

**Q.12) Consider the following statements about minimum wages in India:**

1. The National Floor Level Minimum Wage (NFLMW) is fixed by the Central Government.
2. NFLMW is updated regularly based on CPI-Industrial Workers.
3. The Minimum Wages Act covers all workers.

Which of the statements given above is/are correct?

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

Q.12) Solution (b)

**Explanation:**

- The Central Government adopted **non-statutory** National Floor Level Minimum Wage (NFLMW). This NFLMW is updated regularly as per CPI-IW. **(Hence statement 1 is correct)**
- NFLMW, which has only persuasive value, as it lacked statutory backing, is revised every two years on the basis of rise in **consumer price index for industrial workers (CPI-IW)**, in

order to have a uniform wage structure and reduce the disparity in minimum wages across the country. **(Hence statement 2 is correct)**

- The Minimum Wages Act covers **unskilled workers** across country but not all. **(Hence statement 3 is incorrect)**

**Q.13) \_\_\_\_\_ is a type of unemployment that does not affect aggregate economic output. It occurs when productivity is low and too many workers are filling too few jobs.**

- a) Open Unemployment
- b) Disguised Unemployment
- c) Frictional Unemployment
- d) Seasonal Unemployment

Q.13) Solution (b)

**Explanation:**

- Open unemployment is the situation when a person is willing to work, is educated but is unable to get a job and work. This kind of unemployment is clearly visible in the society.
- Disguised unemployment is unemployment that **does not affect aggregate economic output**. It occurs when productivity is low and too many workers are filling too few jobs. It can refer to any part of the population that is not employed at full capacity. **(Hence option b) is correct)**
- Seasonal unemployment is the type of unemployment that is prevalent during a specific season of the year. In some sectors such as agriculture, ice factories, holiday resorts, etc. production or economic activity is undertaken during a particular season and the rest of the year being an offseason the employees remain unemployed.
- Frictional unemployment occurs with voluntary employment transitions within an economy. As workers choose to move from one job to another and new workers enter the workforce for the first time, a temporary period of unemployment is created.

**Q.14) Consider the following statements about the National Food Security Act, 2013:**

1. It comes under the Ministry of Consumer Affairs, Food and Public Distribution
2. It covers Households under existing Antyodaya Anna Yojana

3. It guarantees age appropriate meal, free of charge through local Anganwadi for children up to 6 months and one free meal for children in age group 6-14 years in schools.

Which of the statements given above are correct?

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

Q.14) Solution (c)

**Explanation:**

**National Food Security Act 2013**

**Ministry/Department:** Ministry of Consumer Affairs, Food and Public Distribution. **(Hence statement 1 is correct)**

**Aim** is to provide subsidized food grains to approximately two thirds of India's population i.e. 75% in rural areas and 50% in urban areas.

**Scheme:**

- It converts the various existing food security schemes into legal entitlements (i.e.) from welfare based approach to rights based approach.
- It includes the Midday Meal Scheme, ICDS scheme and the PDS. It also recognizes maternity entitlements.
- Under NFSA, each beneficiary is entitled to 5 kilograms of food grains per month at Rs.3, Rs.2, and Rs.1 per kg for rice, wheat and coarse grains respectively.
- However, the beneficiaries under Antyodaya Anna Yojana will keep receiving the 35 Kg per household per month at same rates.
- It guarantees age appropriate meal, free of charge through local Anganwadi for children up to 6 months and one free meal for children in age group 6-14 years in schools. **(Hence statement 2 is correct)**
- Every pregnant and lactating mother is entitled to a free meal at the local Anganwadi as well as maternity benefits of Rs. 6,000, in installments.
- Meals for children upto 14 years of age.
- Food security allowance to beneficiaries in case of non-supply of entitled foodgrains or meals.

- A maternal benefit does not extend to Government employees.
- The identification of eligible households is left to state governments.

**Coverage:**

- 75% of the rural population and up to 50% of the urban population for receiving subsidized food grains under Targeted Public Distribution System (TPDS).
- Overall, NFSA caters to 67% of the total population.

**Eligibility:**

- Priority Households to be covered under TPDS, according to guidelines by the State government.
- Households covered under existing Antyodaya Anna Yojana. **(Hence statement 3 is correct)**

**Q.15) Consider the following pairs of Sustainable Development Goals and government programmes in India:**

1. SDG 2 – Poshan Abhiyan
2. SDG 3 - Beti Bachao Beti Padhao
3. SGD 6 – Green India Mission
4. SDG 11 - AMRUT

Which of the pairs given above are correctly matched?

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

Q.15) Solution (a)

**Explanation:**

- SDG 2: End hunger, achieve food security and improved nutrition, and promote sustainable agriculture. **(Hence pair 1 correctly matched)**

- SDG 3: Ensure healthy lives and promote well-being for all at all ages. Beti Bachao Beti Padoo relates to SDG 5 (Achieve gender equality and empower all women and girls). **(Hence statement 2 is incorrect)**
- SDG 6- Ensure availability and sustainable management of water and sanitation for all. **(Hence statement 3 is incorrectly matched)**
- **Green India Mission is related to SDG 13** (Take urgent action to combat climate change and its impacts).
- SDG 11- Make cities and human settlements inclusive, safe, resilient and sustainable. **(Hence statement 4 is correctly matched)**

**Q.16) Which of the following leads to human capital formation?**

1. Expenditure on Education
2. Investments on health
3. On- the- job training
4. Migration and information
5. Population growth

Select the correct answer from the codes given below:

- a) 1, 2, and 5 only
- b) 2, 3, 4 and 5 only
- c) 1, 2, 3 and 5 only
- d) 1, 2, 3 and 4 only

Q.16) Solution (d)

**Explanation:**

**Human Capital**

- Human Capital It refers to the stock of 'skill and expertise' of a nation at a point of time. It is the sum total of skill and expertise.
- Human Capital Formation It is the process of adding to the stock of human capital over time.

**Sources of Human Capital Formation**

- Expenditure on Education

- Expenditure on Health
- On-the-Job Training
- Study Programmes for Adults
- Migration
- Expenditure on Information

#### Problems Facing by Human Capital Formation in India

- Rising population (**Hence statement 5 is incorrect**)
- Deficient man power planning
- Low academic standards

#### Q.17) Which of the following measures are used to estimate poverty in India?

1. Consumption of calorie.
2. Income deprivation.
3. Hunger prevalence.
4. Provisions of social sector schemes in India.

Select the correct answer using the code given below:

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

Q.17) Solution (d)

#### Explanation:

- Since 1960s, various economists and committees have used numerous methods and approaches to arrive at the most standard for poverty measurements.
- Committee and reports, such as under Pant, Dhandhar, Rath, Lakdawala etc have suggested methods based on **calorie consumption, hunger deprivation** etc. (**Hence statement 1 and 3 are correct**)
- The Planning Commission, during 1970-80s, also used income deprivation. (**Hence statement 2 is correct**)

- The report of the Rangarajan Committee also took inclusion of important benefits, which a person derives from the government schemes. **(Hence statement 4 is correct)**

**Q.18) Consider the following statements:**

1. Lorenz curve and the Gini Coefficient are used for calculating income inequality.
2. Gini coefficient can vary from 0 to 1.
3. The Gini coefficient with a value of 1 expresses total equality and a value of 0 expresses maximum inequality.

Which of the statements given above is/are correct?

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

Q.18) Solution (a)

**Explanation:**

- There are two major methods of calculating income inequality- the Lorenz curve and the Gini Coefficient. **(Hence statement 1 is correct)**
- The Gini coefficient can vary from zero to one. **(Hence statement 2 is correct)**
- Higher the Gini coefficient greater the inequality. **Gini coefficient of 0 represents total equality and 1 represents maximum inequality. (Hence statement 3 is incorrect)**

**Q.19. 'Poverty line in India is a quantitative measure'. In this context, consider the following statements:**

1. It defines the number of people in an economy who are deprived of basic facilities.
2. Absolute poverty is taken into account not relative poverty.
3. India uses only one poverty line for the rural and the urban sphere.

Which of the statements given above are correct?

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



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

Q.19) Solution (b)

**Explanation:**

- Poverty line is defined as the number of people in an economy who are deprived of basic facilities, like food, water, housing etc. **(Hence statement 1 is correct)**
- It can only provide the absolute number of poor people, as it is a qualitative measure where the number of people above a threshold (a number in currency terms) is considered non-poor, while others under it are considered poor. **(Hence statement 2 is correct)**
- India uses separate poverty line for the rural and the urban sphere. (This is based on the Suresh Tendulkar Committee and Rangarajan Committee Reports). The Expert Group (Tendulkar) had used the all-India urban poverty line basket as the reference to derive state-level rural and urban poverty. This was a departure from the earlier practice of using two separate poverty line baskets for the rural and the urban areas. **(Hence statement 3 is incorrect)**
- The Expert Group (Rangarajan) reverts to the practice of having separate all-India rural and urban poverty basket lines and deriving state-level rural and urban estimates from these.

**Q.20) The Global Multidimensional Poverty Index was developed by which of the following organizations?**

- a) The World Bank
- b) The UN Development Programme
- c) The Oxford Poverty & Human Development Initiative
- d) Both b) and c)

Q.20. Solution (d)

**Explanation:**

**The Oxford Poverty & Human Development Initiative and the United Nations Development Programme** jointly developed the Global Multidimensional Poverty Index in 2010, replacing the Human Poverty Index. **(Hence option d) is correct answer)**

**Q.21) Consider the following statements**

1. Anang Tal is a manmade lake located in Delhi and is a monument of national importance.
2. The lake was built by Prithviraj Chauhan the Tomar King on the event of his coronation as a King.

Choose the correct statements:

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

Q.21) Solution (a)

**Explanation:**

- **Anang Tal lake declared monument of national importance** through a gazette notification by the Ministry of Culture.
- The lake is situated in **Mehrauli, Delhi** and is claimed to be created by **Tomar King, Anangpal II**, in 1,060 AD. **Hence statement 1 is correct and statement 2 is not correct.**
- Anangpal II, popularly known as Anangpal Tomar, belonged to the Tomar dynasty.
- He was the founder of **Dhillika Puri**, which eventually became Delhi.
- He had built the city from ruins and under his supervision, Anang Tal Baoli and Lal Kot were constructed.
- Anangpal Tomar II was **succeeded by his grandson Prithviraj Chauhan**.
- Delhi Sultanate was established in 1192 after Prithviraj Chauhan's defeat in the Battle of Tarain (present-day Haryana) by the Ghurid forces.

Source: [CLICK HERE](#)

**Q.22) Consider the following statements about Pen-Plus Strategy**

1. It is a joint initiative of the Ministry of Health and Family Welfare and the Ministry of Women and Child Development.
2. It is a strategy to boost access to the diagnosis, treatment and care of severe non-communicable diseases (NCD).

Choose the incorrect statements:

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

Q.22) Solution (a)

**Explanation:**

**Pen-Plus Strategy**

- **Africa has adopted a new strategy to boost access to the diagnosis, treatment and care of severe non-communicable diseases (NCD). Hence statement 1 is not correct.**
- It is a **regional strategy** to address severe non-communicable diseases at first-level referral health facilities.
- The strategy is aimed at bridging the access gap in **treatment and care of patients with chronic and severe NCDs. Hence statement 2 is correct.**
- Health ministers of African countries endorsed the plan at the 72nd session of the World Health Organization (WHO) Regional Committee for Africa in Lome, Togo to reduce premature mortality from NCDs.
- NCDs include heart diseases, cancers, diabetes, and asthma among others.
- Globally, NCDs are the main cause of morbidity and mortality.
- Severe non-communicable diseases are those chronic conditions that lead to high levels of disability and death among children, adolescents and young adults if left undiagnosed or untreated.
- In Africa, the most prevalent, severe non-communicable diseases include sickle-cell disease, type 1 and insulin-dependent type 2 diabetes, rheumatic heart disease, severe hypertension and moderate to severe and persistent asthma.

**Source:** [CLICK HERE](#)

**Q.23) Consider the following statements**

1. INS Vikrant is India's first indigenous aircraft carrier and the largest warship to have ever been built in India.
2. At present, India has only one aircraft carrier, INS Vikramaditya, which is built on a Russian platform.
3. INS Vikrant is built by India's state-run Cochin Shipyard Limited (CSL).

Choose the correct statements:

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

Q.23) Solution (c)

**Explanation:**

**INS Vikrant Aircraft Carrier**

- **It is India's first indigenous aircraft carrier and the largest warship to have ever been built in India. Hence statement 1 is correct.**
- **INS Vikrant is built by India's state-run Cochin Shipyard Limited (CSL). Hence statement 3 is correct.**
- With the construction of 'Vikrant', India has joined a select group of nations such as the US, the UK, Russia, China and France, having the niche capability to indigenously design and build an aircraft carrier.
- The INS Vikrant has over 2,300 compartments, designed for a crew of around 1,700 people, including specialised cabins to accommodate women officers.
- Vikrant has a top speed of around 28 knots and a cruising speed of 18 knots with an endurance of about 7,500 nautical miles.
- The warship is 262 metres long, 62 metres wide and it has a height of 59 metres.
- India has had aircraft carriers earlier too, but those were built either by the British or the Russians.
- The '**INS Vikramaditya**', which was commissioned in 2013 and which is currently the Navy's only aircraft carrier, started out as the Soviet-Russian warship 'Admiral Gorshkov'. **Hence statement 2 is correct.**

Currently, India operates two aircraft carriers - Russian built INS Vikramaditya and indigenously built INS Vikrant. Hence statement 2 is not correct

Source: [CLICK HERE](#)

**Q.24) Consider the following statements about Battery Waste Management Rules, 2022**

1. The importers of batteries are responsible for collection and recycling/refurbishment of waste batteries.
2. The rules enable setting up a centralized online portal for exchange of Extended Producer Responsibility (EPR) certificates.
3. On the principle of Polluter Pays Principle, environmental compensation will be imposed for non-fulfilment of EPR targets

Choose the correct statements:

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

Q.24) Solution (c)

**Explanation:**

- The rules function based on the concept of Extended Producer Responsibility (EPR) where the producers (**including importers**) of batteries are responsible for collection and recycling/refurbishment of waste batteries and use of recovered materials from wastes into new batteries. **Hence statement 1 is correct.**
- The rules will enable setting up a mechanism and **centralized online portal for exchange of EPR certificates** between producers and recyclers/refurbishers to fulfil the obligations of producers. **Hence statement 2 is correct.**
- The rules promote setting up of new industries and entrepreneurship in collection and recycling/refurbishment of waste batteries.
- On the principle of **Polluter Pays Principle**, Environmental compensation will be imposed for nonfulfilment of Extended Producer Responsibility targets, responsibilities and obligations set out in the rules. **Hence statement 3 is correct.**

- The funds collected under environmental compensation shall be utilised in collection and refurbishing or recycling of uncollected and nonrecycled waste batteries.

Source: [CLICK HERE](#)

**Q.25) Consider the following statements about Bisphenol-A (BPA)**

1. It is a colourless solid which is soluble in organic solvents, but poorly soluble in water.
2. It is used in the process of manufacturing polycarbonates plastics and epoxy resins as a plasticizer.
3. BPA is a known as endocrine disruptor.

Choose the correct statements:

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

Q.25) Solution (d)

**Explanation:**

- Bisphenol A (BPA) is a chemical compound primarily used in the manufacturing of various plastics. It is a **colourless solid** which is **soluble in most common organic solvents**, but has very poor solubility in water. **Hence statement 1 is correct.**
- BPA's largest single application is as a comonomer in the **production of polycarbonates**, which accounts for 65-70% of all BPA production.
- The **manufacturing of epoxy resins and vinyl ester resins** account for 25–30% of BPA use. **Hence statement 2 is correct.**
- BPA can also be found in breast milk.
- BPA is a known **endocrine disruptor**. **Hence statement 3 is correct.**
- Generally, BPA acts on hormonal level by distorting hormonal balance and inducing estrogenic effects through binding with estrogen related receptors (ERR).
- The resultant effects are numerous of which hormonal related abnormalities have been mostly reported.

Source: [CLICK HERE](#)

**Q.26) A train travelled at one-thirds of its usual speed, and hence reached the destination 30 minutes after the scheduled time. On its return journey, the train initially travelled at its usual speed for 5 minutes but then stopped for 4 minutes for an emergency. The percentage by which the train must now increase its usual speed so as to reach the destination at the scheduled time, is nearest to**

- a) 58
- b) 67
- c) 50
- d) 61

Q.26) Solution (b)

**Explanation:**

Let's take speed of the train to be 'x' and the time taken be 't'

Since speed is reduced to  $1/3^{\text{rd}}$ ,

New speed =  $x/3$

Since the speed is one-third, time taken will be tripled.  $T = 3t$

This  $3t$  is after the scheduled time, So extra  $2t = 30$  minutes

$t = 15$  minutes

Train travels at  $x$  km/hr takes 15 minutes and

Train travels at  $x/3$  km/hr takes 45 minutes

So, the train usually takes 15 minutes to cover the distance.

It travels 5 minutes at the usual speed. That is, it travels  $1/3^{\text{rd}}$  of the time at the usual speed. So it covers  $1/3^{\text{rd}}$  of the distance in 5 minutes.

To reach its destination in the on time, the train has to travel the remaining  $2/3^{\text{rd}}$ s of the distance in 10 minutes. Since the train halts for 4 minutes, it should now cover the  $2/3^{\text{rd}}$ s of the distance in 6 (10 - 4) minutes.

In other words, the train has to cover the same distance in  $6/10^{\text{th}}$  of the usual time.

In order to do so, the speed must be  $10/6$  <sup>th's</sup> of the usual speed. Or the increased speed will be  $4/6$  <sup>th's</sup> or  $2/3$  <sup>rd's</sup> of the usual speed which is an increase of 66.66% or nearly 67%.

**Q.27) A round bouncing object is dropped from a building of height 20 feet. Every time it touches the floor, it bounces back to a height which is one half of the height of the last bounce. If you measure till the objects comes to rest, how much distance would it have covered by then?**

- a) 30 feet
- b) 40 feet
- c) 50 feet
- d) 60 feet

Q.27) Solution (d)

**Explanation:**

First time it would cover = 20 ft

Second time it would cover = 10ft down + 10 ft up

Third time it would cover = 5ft up + 5ft down

It will go on like this the object stops

Total distance travelled =  $20 + (10 + 10) + (5 + 5) + (2.5 + 2.5) + \dots$

=  $20 + (10 + 5 + 2.5 + \dots) + (10 + 5 + 2.5 + \dots)$

Assuming the object comes to rest at infinity,

Total distance travelled =  $20 + [10/ (1 - 0.5)] + [10/ (1 - 0.5)]$

=  $20 + 20 + 20 = 60$

Thus option d is correct.



**Q.28) The scenario comprises of a wobbly bridge and four people. It is the night time and the people have only one torch. Without torch one may risk his life in crossing the bridge. Also we have a condition; the bridge is not quite strong and can hold only two persons together at one. The four people take different time to cross the bridge - 1 min, 2 min, 7 min and 10 min. Since the torch is a necessity and the bridge can't hold more than two persons at a time, two persons must travel at a time out of which one must return with the torch so they don't risk their life crossing in the dark. What is the shortest time that will be required for all of them to cross the bridge?**

- a) 21 min
- b) 18 min
- c) 17 min
- d) 23 min

Q.28) Solution (c)

**Explanation:**

Were you thinking of using the fastest person who takes one minute to travel to and fro till everyone has reached the other end? Yes that can be done but it will take  $10 + 1 + 7 + 1 + 2 = 21$  minutes in total.

If we pay attention towards finding a way to merge the one taking 7 minutes and the one taking 10 minutes, we will have to acknowledge the fact that one of them will also have to return back which will take much more time than 21 minutes.

What if we use the person taking 2 minutes to escort the one taking 1 minute across? Let's come to the conclusion:

1 and 2 cross the bridge; 2 returns with the torch

7 and 10 cross the bridge

1 comes back

1 and 2 cross the bridge

In such a manner, the total time taken will be

$2 + 2 + 10 + 1 + 2 = 17$  minutes

**Q.29) Fernando Alonso and Sebastian Vettel go for a car race. Before start of race, both of them have the exactly same amount of fuel in their respective cars. With the given fuel Fernando can drive continuously for 4 hours while Vettel can drive 1 hour more i.e five hours. After a time they realize that amount of fuel left in Sebastian car is 4 times the fuel in Fernando car. For long they are racing?**

- a) 15/4 hours
- b) 13/2 hours
- c) 17/5 hours
- d) 19/4 hours

Q.29) Solution (a)

**Explanation:**

Let us say they drive for "t" hours and initial fuel is "f"

Amount of fuel consumed by Fernando's car is  $ft/4$

Amount of fuel consumed by Sebastian's car is  $ft/5$

As per given condition,

$$f - ft/5 = 4(f - ft/4)$$

$$t = 15/4 \text{ hours}$$

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

#### Passage 1

Popular imagination about school education in India is centred on children studying either in government schools or mainstream private schools that follow the conventional classroom teaching model. However, increasingly, a trend among parents and guardians has developed to follow unconventional elementary education models that militate against the perceived shortages of conventional elementary education, such as its excessive emphasis on rote learning rather than problem solving, and its stifling of creativity in favour of conformity. While home-schooling is at a very nascent stage, with conservative estimates putting the number children who are home-schooled by their parents in the country somewhere between 500 to 1,000 children,

the alternate education movement has existed for several decades in our country, since the pre-independence era [E.g. The Viswa Bharati University founded by Rabindranath Tagore, and the Sri Aurobindo International Centre for Education founded by Sri Aurobindo]

**Q.30) What does the conventional elementary education entails according to the passage?**

1. Excessive emphasis on rote learning rather than problem solving
2. Prevention of creativity among children

Choose the correct code

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

Q.30) Solution (c)

**Explanation:**

Refer to the following excerpt, "However, increasingly, a trend among parents and guardians has developed to follow unconventional elementary education models that militate against the perceived shortages of conventional elementary education, such as its excessive emphasis on rote learning rather than problem solving, and its stifling of creativity in favour of conformity. From this we can infer that option c is correct.