

Q. 1) Consider the following pairs regarding nutrient deficiency diseases

Vitamin/Mineral	Disorder
1. Iron	Goiter
2. Vitamin A	Night blindness
3. Vitamin D	Scurvy
4. Iodine	Anemia

How many pairs are correctly matched?

- a) Only one pair
- b) Two pairs
- c) Three pairs
- d) Four pairs

Q.1) Solution: (a)

Explanation:

Vitamin/Mineral	Disorder
1. Iron	Anemia
2. Vitamin A	Night blindness
3. Vitamin D	Rickets and Osteomalacia
4. Iodine	Goiter
5. Vitamin C	Scurvy, Swelling of Gums
6. Vitamin B1	Beriberi

7. Vitamin B2	Ariboflavinosis
8. Vitamin B3	Pellagra
9. Vitamin B7	Dermatitis, Enteritis
10. Vitamin B5	Paresthesia
11. Vitamin B9 and B12	Megaloblastic anemia
12. Vitamin E	Less fertility
13. Vitamin K	Non-clotting of blood
14. Calcium	Bone and tooth decay

Hence option a is correct.

Q. 2) Consider the following statements about generic drugs

1. They have the same active pharmaceutical ingredient (API) as the original.
2. These medicines have the same potency, quality, and implications and work in an identical manner as the branded drug.
3. Nearly 45% of the generic drugs circulating in India are of substandard quality
4. They are allowed for sale before the patents on the original drugs expire.

Choose the correct code:

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

Q.2) Solution: (c)

Explanation:

- **Generic drugs** have the same active pharmaceutical ingredient (API) as the original.
- But they may differ in some characteristics such as the manufacturing process, formulation, excipients, color, taste, and packaging.
- A generic drug is a pharmaceutical drug that contains the same chemical substance as a drug that was originally protected by patents.
- They are **copies of originally researched drugs but at much lower prices**.
- The dosage, composition, method of intake, benefits, quality, and even side effects of generic medicines are similar to the brand-name version of the drugs.
- Just because generics have a significantly lower price tag, it does not mean that these medications are less effective. **Hence statement 1 is correct.**
- Generic drugs are allowed for sale after the patents on the original drugs expire.
- Because the active chemical substance is the same, the medical profile of generics is believed to be equivalent in performance. **Hence statement 4 is incorrect.**
- Generic drugs can be defined as affordable versions of branded drugs which are brought into the market once the original drug manufacturer's patent expires. These medicines have the same potency, quality, and implications and work in an identical manner as the branded drug. The generic medicines are marketed either by a salt or brand name. **Hence statement 2 is correct.**
- Illegitimate drugs have been a challenging issue for India over quite a period of time. In 2018, the Central Drug Standard Control Organization (CDSCO) identified nearly 4.5 per cent of all generic drugs circulated in the domestic market to be substandard. Meanwhile, the issue begins with the lack of quality testing facilities across the country. **Hence statement 3 is incorrect.**

Q. 3) Consider the following statements about antimicrobial resistance (AMR)

1. It is the resistance acquired by any microorganism against antimicrobial drugs that are used to treat infections.
2. Death due to AMR is now a leading cause of death worldwide higher than HIV/AIDS or malaria.
3. The Global Antimicrobial Resistance and Use Surveillance System (GLASS) was launched by the United Nations to manage AMR effectively

Choose the correct code:

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

Q.3) Solution: (c)

Explanation:

- Antimicrobial resistance is the resistance acquired by any microorganism (bacteria, viruses, fungi, parasites, etc.) against antimicrobial drugs (such as antibiotics, antifungals, antivirals, antimalarials, and anthelmintics) that are used to treat infections.
- As a result, standard treatments become ineffective, infections persist, and may spread to others.
- Microorganisms that develop antimicrobial resistance are sometimes referred to as “superbugs”. **Hence statement 1 is correct.**
- According to the Global Research on Antimicrobial Resistance (GRAM) report, 1.27 million people died in 2019 as a direct result of AMR (AntiMicrobial Resistance).
- Death due to AMR is now a leading cause of death worldwide, higher than HIV/AIDS or malaria.
- Most of the deaths from AMR were caused by lower respiratory infections, such as pneumonia, and bloodstream infections, which can lead to sepsis.

- The World Health Organization (WHO) has identified AMR as one of the top ten threats to global health. **Hence statement 2 is correct.**
- The Global Antimicrobial Resistance and Use Surveillance System (GLASS) was launched by the World Health Organization (WHO) in 2015 to continue filling knowledge gaps and to inform strategies at all levels.
- GLASS has been conceived to progressively incorporate data from surveillance of AMR in humans, surveillance of the use of antimicrobial medicines, and AMR in the food chain and the environment. **Hence statement 3 is incorrect.**

Q. 4) Consider the following statements about Rabies

1. It is a vaccine-preventable zoonotic disease.
2. India is endemic for rabies, and accounts for more than 50 % of the world's rabies deaths
3. In India all the rabies infections are due to dog bites.

Choose the correct code:

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

Q.4) Solution: (a)

Explanation:

- Rabies is a vaccine-**preventable zoonotic disease**.
- **It** can be prevented by vaccinating pets, staying away from wildlife, and seeking medical care after potential exposures before symptoms start. **Hence statement 1 is correct.**
- It is caused by a Ribonucleic Acid (RNA) virus that is present in the saliva of a rabid animal (dog, cat, monkey, etc).
- It is invariably transmitted following a bite of an infected animal which leads to the deposition of the saliva and the virus in the wound.

- Once clinical symptoms appear, rabies is virtually 100% fatal. Death invariably occurs in four days to two weeks due to cardio-respiratory failure. India is endemic for rabies, and accounts for 36% of the world's rabies deaths. **Hence statement 2 is incorrect.**
- India is endemic for rabies and accounts for 36% of the world's rabies deaths.
- In India, dogs are responsible for about 97% of human rabies, followed by cats (2%), jackals, mongooses, and others (1%). The disease is endemic throughout the country. **Hence statement 3 is incorrect.**

Q. 5) The National Institute of Animal Biotechnology (NIAB), Hyderabad has developed an immunosensor to detect 'Non-Structural 1 (NS1) secretory protein' which is a suitable biomarker for for _____ disease.

- SARS Cov 2
- Tuberculosis
- Japanese Encephalitis
- Dengue

Q.5) Solution: (c)

Explanation:

- Recently, the National Institute of Animal Biotechnology (NIAB), Hyderabad has developed an immunosensor to detect Non-Structural 1 (NS1) secretory protein which is a suitable biomarker for Japanese Encephalitis Virus (JEV) found circulating in the blood.
- Detection of the NS1 instead of antibody has an added advantage since the antigen is present from day 1 of the infection and hence facilitates early detection. On the other hand, antibodies appear only after Day 4/5 of the infection.
- NIAB is an Indian autonomous research establishment of the Department of Biotechnology, Ministry of Science and Technology.
- Japanese Encephalitis (JE) is a viral infection that can cause inflammation in the brain.

- It is caused by a flavivirus that belongs to the same genus as dengue, yellow fever, and West Nile viruses.
- Japanese encephalitis virus (JEV) is also a major cause of Acute Encephalitis Syndrome (AES) in India.
- The disease is transmitted to humans through bites from infected mosquitoes of the Culex species.
- These mosquitoes breed mainly in rice fields and large water bodies rich in aquatic vegetation.
- There is no antiviral treatment for patients with JE.
- The treatment, available, is supportive to relieve symptoms and stabilise the patient.
- **Safe and effective JE vaccines** are available to prevent the disease. It is also included under the **Universal Immunisation Program** of the Government of India.

Q. 6) Consider the following statements about Erythritol

1. It is used as a sugar substitute in foods and beverages.
2. It does not occur naturally.
3. It is used in confections, biscuits, and cookies.
4. Its use can lead to an increased risk of heart attack and stroke.

Choose the correct code:

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

Q.6) Solution: (d)

Explanation:

- Erythritol is a type of sugar alcohol commonly used as a sugar substitute in foods and beverages. Unlike traditional sugars, it has no calories and does not raise blood sugar levels.
- Artificial sweeteners are **common replacements for table sugar in low-calorie, low-carbohydrate, and keto products. Hence statement 1 is correct.**
- Erythritol occurs naturally in some fruit and fermented foods.
- It also occurs in human body fluids such as eye lens tissue, serum, plasma, fetal fluid, and urine.
- At the industrial level, it is produced from glucose by fermentation with a yeast, *Moniliella pollinis*. **Hence statement 2 is incorrect.**
- It is used in coffee and tea, liquid dietary supplements, juice blends, soft drinks, and flavored water product variations, with foods including confections, biscuits and cookies, tabletop sweeteners, and sugar-free chewing gum. **Hence statement 3 is correct.**
- Erythritol activates platelets, the blood cells which cause clots when they clump together. Such aggregation of platelets blocks blood flow in blood vessels in different parts of the body.
- When that happens in blood vessels supplying blood to the heart or brain, fatal or non-fatal cardiovascular events like heart attack and stroke occur. **Hence statement 4 is correct.**

Q. 7) Consider the following statements regarding the Mental healthcare initiatives

1. Manodarpan Initiative of the Ministry of Health and Family Welfare aimed to provide psychosocial support to students.
2. Right to information and confidentiality are covered under the Mental Health Act of 2017.
3. Kiran Helpline is a 24/7 toll-free helpline to provide support to people facing anxiety, stress, and depression.

Choose the correct code:

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

Q.7) Solution: (b)

Explanation:

- According to the World Health Organisation (WHO), mental health is defined as a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and can make a contribution to her or his community.
- Mental health is a basic human right and it is crucial to personal, community, and socio-economic development.
- Manodarpan Initiative is an initiative of the Ministry of Education aimed to provide psychosocial support to students, family members, and teachers for their mental health and well-being during the times of the Covid-19 pandemic. **Hence statement 1 is incorrect.**
- The **Mental HealthCare Act 2017** guarantees every affected person access to mental healthcare and treatment from services run or funded by the government.
- Rights covered under the MHA:
 - ✓ Right to make an advance directive
 - ✓ Right to access healthcare services
 - ✓ Right to free-of-cost healthcare services
 - ✓ Right to live in a community
 - ✓ Right to protection from cruel, inhuman, and degrading treatment
 - ✓ Right not to be treated under prohibited treatment
 - ✓ Right to equality and non-discrimination

- ✓ Right to information
- ✓ Right to confidentiality
- ✓ Right to legal aid and complain

Hence statement 2 is correct.

- Kiran Helpline is a 24/7 toll-free helpline to provide support to people facing anxiety, stress, depression, suicidal thoughts, and other mental health concerns. It was launched by the Ministry of Social Justice and Empowerment. **Hence statement 3 is correct.**

Q. 8) Consider the following statements Influenza

1. There are four types of influenza virus, termed influenza viruses A, B, C, and D.
2. Aquatic birds are the primary source of Influenza A virus (IAV), which is also widespread in various mammals, including humans and pigs.
3. Influenza B virus (IBV) and Influenza C virus (ICV) primarily infect humans.
4. Influenza D virus (IDV) is found in cattle and pigs.

Choose the incorrect code:

- a) 1 and 2
- b) 2 and 3
- c) 1 and 3
- d) None of the Above

Q.8) Solution: (d)

Explanation:

- There are four types of influenza virus, termed influenza viruses A, B, C, and D.
- Aquatic birds are the primary source of Influenza A virus (IAV), which is also widespread in various mammals, including humans and pigs.
- Influenza B virus (IBV) and Influenza C virus (ICV) primarily infect humans, and Influenza D virus (IDV) is found in cattle and pigs. **Hence all statements are correct**

- IAV and IBV circulate in humans and cause seasonal epidemics, and ICV causes a mild infection, primarily in children. IDV can infect humans but is not known to cause illness. In humans, influenza viruses are primarily transmitted through respiratory droplets produced from coughing and sneezing. Transmission through aerosols and intermediate objects and surfaces contaminated by the virus also occur.
- Recent reports of H5N1 (a subtype of avian influenza) being transmitted between mammals have raised concerns about its potential to cause a human pandemic.
- Scientists are investigating a potential spillover event after a mass mortality event that killed over 700 seals along the Caspian Sea coast where an H5N1 variant was detected in wild birds a few months ago. **Hence statement 2 is incorrect.**
- The symptoms in humans range from mild to severe influenza-like illnesses such as fever, cough, sore throat, muscle aches, nausea, abdominal pain, diarrhea, and vomiting.
- People can also develop severe respiratory illnesses like difficulty breathing, pneumonia, acute respiratory distress, viral pneumonia and altered mental status, seizures, etc. **Hence statement 3 is correct.**

Q. 9) Consider the following statements regarding PM-ABHIM (Prime Minister-Ayushman Bharat Health Infrastructure Mission)

1. It aims to strengthen healthcare infrastructure by replacing the National Health Mission (NHM).
2. Its objective is to establish an IT-enabled disease surveillance system.

Choose the correct code:

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

Q.9) Solution: (b)

Explanation:

- **Prime Minister Ayushman Bharat Health Infrastructure Mission (PM-ABHIM)** is one of the largest pan-India schemes for strengthening healthcare infrastructure across the country.
- It is in addition to the **National Health Mission (NHM)**.
- It aims to **provide support to 17,788 rural Health and Wellness Centres in 10 high-focus states** and establish 11,024 urban **Health and Wellness Centres** across the country.
- NHM was launched by the government of India in 2013 subsuming the National Rural Health Mission (Launched in 2005) and the National Urban Health Mission (Launched in 2013).
- The main programmatic components include Health System Strengthening in rural and urban areas for - Reproductive-Maternal- Neonatal-Child and Adolescent Health (RMNCH+A), and Communicable and Non-Communicable Diseases.
- The NHM envisages the achievement of universal access to equitable, affordable & quality healthcare services that are accountable and responsive to people's needs.

Hence statement 1 is incorrect.

- Its objectives are:
 - ✓ To ensure a robust public health infrastructure in both urban and rural areas.
 - ✓ To establish an IT-enabled disease surveillance system.
- All the public health labs will be connected through the Integrated Health Information Portal, which will be expanded to all states and UTs. **Hence statement 2 is correct.**

Q. 10) Consider the following statements about the Zero-Draft of Pandemic Treaty

1. It is published by the World Health Organisation to address the challenges posed by pandemics.
2. Its principal component includes global cooperation and investment in research and development.

Choose the correct code:

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

Q.10) Solution: (c)

Explanation:

- The Zero-Draft of Pandemic Treaty is published by the World Health Organisation.
- The treaty aims to address the challenges posed by pandemics and other global health emergencies.
- The zero-draft of the pandemic treaty was established based on recognising the catastrophic failure of the international community in showing solidarity and equity in response to the Covid-19 Pandemic. **Hence statement 1 is correct.**
- The principal components of the treaty include global cooperation, strengthening health systems, transparency in information sharing, investment in research and development, addressing gender disparities, and **pathogen access and benefit-sharing system. Hence statement 2 is correct.**

Q. 11) Consider the following statements about Cholera

1. It is an acute, diarrheal illness caused by an infection of the intestine.
2. It is caused by drinking water or eating food contaminated with the cholera fungi.
3. There are three available Oral Cholera Vaccines (OCV) including Dukoral.

Choose the correct code:

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

Q.11) Solution: (c)

Explanation:

- Cholera is a life-threatening infectious **disease and a public health hazard**.
- Cholera is an acute, diarrheal illness caused by infection of the intestine with the **bacterium *Vibrio cholerae***.
- The infection is often mild or without symptoms, but sometimes can be severe.
- Its symptoms include profuse watery diarrhoea, vomiting, and leg cramps. **Hence statement 1 is correct.**
- A person may get cholera by drinking water or eating food contaminated with the cholera bacterium.
- The disease can spread rapidly in areas with inadequate treatment of sewage and drinking water. **Hence statement 2 is incorrect.**
- Currently, there are three WHO pre-qualified Oral Cholera Vaccines (OCV), Dukoral, Shanchol, and Euvichol-Plus.
- All three vaccines require two doses for full protection. **Hence statement 3 is correct.**

Q. 12) Consider the following statements

1. Heart Attack Rewind is a public service announcement to warn citizens about the health hazards of consuming trans fats.
2. REPLACE is a step-by-step guide for the elimination of industrially-produced trans-fatty acids from the global food supply.

Choose the correct code:

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

Q.12) Solution: (c)

Explanation:

- Trans fat, or trans-fatty acids, are unsaturated fatty acids that come from either natural or industrial sources.
- Heart Attack Rewind is a 30-second public service announcement that was broadcasted in 17 languages on social media platforms.
- The objective of the campaign was to warn citizens about the health hazards of consuming trans fats and offer strategies to avoid them through healthier alternatives.

Hence statement 1 is correct.

- World Health Organisation released REPLACE, a step-by-step guide for the elimination of industrially-produced trans-fatty acids from the global food supply.
- REPLACE provides six strategic actions to ensure the prompt, complete, and sustained elimination of industrially-produced trans fats from the food supply:
 - ✓ REview dietary sources of industrially-produced trans fats and the landscape for required policy change.
 - ✓ Promote the replacement of industrially-produced trans fats with healthier fats and oils.
 - ✓ Legislate or enact regulatory actions to eliminate industrially-produced trans fats.
 - ✓ Assess and monitor trans fats content in the food supply and changes in trans-fat consumption in the population.
 - ✓ Create awareness of the negative health impact of trans fats among policymakers, producers, suppliers, and the public.
 - ✓ Enforce compliance with policies and regulations. **Hence statement 2 is correct.**

Q. 13) Consider the following statements regarding Innate Immunity

1. It is pathogen-specific that is characterized by memory.
2. It is accomplished by providing different types of physical and cellular barriers.

Choose the correct code:

- a) 1 only

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

Q.13) Solution: (b)

Explanation:

- Innate immunity is a **non-specific** type of defense, that is present at the time of **birth**.
- Innate immunity is accomplished by providing different types of barriers to the entry of foreign agents into our bodies.
- Acquired immunity is **pathogen-specific** and is characterized by **memory**. This means that our body when it encounters a pathogen for the first time produces a response called **primary response** which is of low intensity. **Hence statement 1 is incorrect.**
- Innate immunity consists of four types of barriers. These are —
- **Physical Barriers:** The skin on our body is the main barrier that prevents entry of the micro-organisms. Mucus coating of the epithelium lining the respiratory, gastrointestinal, and urogenital tracts also helps in trapping microbes entering our body.
- **Physiological Barriers:** Acid in the stomach, saliva in the mouth, and tears from the eyes all prevent microbial growth.
- **Cellular Barriers:** Certain types of **leukocytes (WBC)** of our body like polymorpho-nuclear leukocytes (PMNL-neutrophils) and **monocytes** and natural killers (type of **lymphocytes**) in the blood as well as **macrophages** in tissues can **phagocytose** and destroy microbes.
- **Cytokine Barriers:** Virus-infected cells secrete proteins called **interferons** which protect non-infected cells from further viral infection. **Hence statement 2 is correct.**

Q. 14) Consider the following statements regarding the United Nations (UN) World Social Report 2023

1. The elderly population will constitute more than 16% of the global population in 2050
2. North Africa is expected to experience the fastest growth in the number of older people.

Choose the correct code:

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

Q.14) Solution: (c)

Explanation:

- Ageing of the population refers to the **process by which the proportion of older individuals** in a society increases over time.
- It is typically measured by the **proportion of the population that is over a certain age**, such as **65 years or older**.
- According to the **United Nations (UN) World Social Report 2023: Leaving no one behind in an ageing world**, the number of persons aged 65 years or older worldwide is expected to **double over the next three decades**.
- The elderly population will reach 1.6 billion in 2050, accounting for more than 16% of the global population. **Hence statement 1 is correct .**
- Gender inequality also persists into old age. Economically, women's lower levels of formal labour market participation, shorter working lives, and lower wages during working years lead to more economic insecurity in later life.
- **North Africa, West Asia, and Sub-Saharan Africa** are expected to experience the fastest growth in the number of older people over the next three decades. **Hence statement 2 is correct.**

Q. 15) Consider the following statements regarding CERVAVAC

1. It is a quadrivalent human papillomavirus (qHPV) vaccine.
2. It has the potential to eliminate cervical cancer.
3. It is developed by the USA.

Choose the correct code:

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

Q.15) Solution: (a)

Explanation:

- CERVAVAC is a **quadrivalent human papillomavirus (qHPV) vaccine** that is said to be **effective against four strains of the virus - Type 6, Type 11, Type 16, and Type 18.**
- It is based on **VLP (Virus-Like Particles)**, similar to the **Hepatitis B** vaccination.
- A quadrivalent vaccine is a vaccine that works by stimulating an **immune response against four different antigens**, such as four different viruses or other microorganisms. **Hence statement 1 is correct.**
- It has a significant potential to eliminate cervical cancer and it would be helpful if included in national HPV vaccination efforts and offered at a lower cost than existing vaccinations.
- The vaccine is extremely effective only when it's administered before the first sexual intercourse.
- Cervical cancer develops in a woman's cervix. It is the 4th most common type of cancer among women, globally and 2nd most common among women in India.
- As per the Lacent study, India contributes the largest share of the global cervical cancer burden nearly 1 in every 4 deaths globally due to cervical cancer. **Hence statement 2 is correct.**

- It is India's first indigenously developed quadrivalent human papillomavirus (qHPV) vaccine. Hence statement 3 is incorrect.

Q. 16) Consider the following statements regarding the National Policy of Rare Diseases (NPRD)

1. It categorizes rare diseases into two groups namely Group 1 and Group 2.
2. The patients with Group 1 diseases will have financial support of up to Rs. 20 lakhs.
3. It creates a national **hospital-based registry of rare diseases**.

Choose the correct code:

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

Q.16) Solution: (b)

Explanation:

- **National Policy of Rare Diseases (NPRD)** was launched by the Ministry of Health and Family Welfare in 2021 for the treatment of rare disease patients.
- **Aim:**
 - ✓ To increase focus on indigenous research and local production of medicines.
 - ✓ To lower the cost of treatment of rare diseases.
 - ✓ To screen and detect rare diseases early at early stages, which will in turn help in their prevention.
- **It categories rare diseases into three groups as below:**
 - ✓ Group 1: Disorders amenable to one-time curative treatment.
 - ✓ Group 2: Those requiring long-term or lifelong treatment.

- **Group 3:** Diseases for which definitive treatment is available but challenges are to make an optimal patient selection for benefit, very high cost, and lifelong therapy. **Hence statement 1 is incorrect.**
- The patients who are suffering from rare diseases listed under Group 1 will have the financial support of up to Rs. 20 lakhs under the umbrella scheme of Rashtriya Arogya Nidhi.
- Rashtriya Arogya Nidhi provides financial assistance to patients, living Below Poverty Line (BPL) and who are suffering from major life-threatening diseases, to receive medical treatment at any of the super specialty Government hospitals/institutes. **Hence statement 2 is correct.**
- It creates a national hospital-based registry of rare diseases to ensure adequate data and comprehensive definitions of such diseases are available for those interested in research and development. **Hence statement 3 is correct.**

Q. 17) Consider the following statements regarding eSanjeevani

1. It is a national doctor-to-doctor telemedicine service.
2. The eSanjeevaniOPD caters to citizens in rural areas only.

Choose the correct code:

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

Q.17) Solution: (a)

Explanation:

- eSanjeevani is a **national doctor-to-doctor telemedicine service** that strives to provide an alternative to conventional physical consultations via the digital platform.

- eSanjeevani is a cohesive part of the **Ayushman Bharat Digital Health Mission (ABDHM)**, and **more than 45,000 ABHA IDs have been generated via the eSanjeevani application. Hence statement 1 is correct.**
- It has two verticles: Ayushman Bharat Health and Wellness Centres and eSanjeevaniOPD.
- Ayushman Bharat Health and Wellness Centres (AB-HWCs) Programme endeavors to bridge the rural-urban digital health divide by providing assisted teleconsultations.
- It ensures that e-beneficiaries of the Ayushman Bharat Scheme can avail of the benefits they are entitled to.
- eSanjeevaniOPD caters to citizens in **both rural and urban areas.**
- It leverages technology via smartphones, tablets, and laptops enabling doctor consultations to be accessible from the patient's residence regardless of location.
- It has trained and onboarded 2,22,026 specialists, doctors, and health workers.
- This platform has an impressive record of having served over 4.34 lakh patients in one day. **Hence statement 2 is incorrect.**

Q. 18) Consider the following statements about the Registration of Birth and Death (RBD) Act of 1969

1. It made the registration of birth and death mandatory in India.
2. It is the responsibility of the central government to register births and deaths.
3. It is implemented by the Chief Registrar appointed in every state.

Choose the correct code:

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

Q.18) Solution: (c)

Explanation:

Context: Recently, the Union Home Ministry proposed **amendments to the Registration of Birth and Death (RBD) Act, 1969.**

- The Registration of Birth and Death (RBD) Act of 1969 made the registration of birth and death **mandatory in India.**
- **It** is done as per the place of occurrence of the event. **Hence statement 1 is correct.**
- It is the **responsibility of the states to register births and deaths.**
- State governments have set up facilities for registering births and deaths and keeping records. **Hence statement 2 is incorrect.**
- A Chief Registrar appointed in every State is the executive authority for the implementation of the Act.
- A hierarchy of officials at the district and lower levels do the work.
- The RGI, appointed under this Act, is responsible for coordinating and unifying the implementation of the RBD Act. **Hence statement 3 is correct.**

Q. 19) Consider the following statements about Dengue

1. It is a mosquito-borne bacterial tropical disease.
2. Its transmission is closely associated with rainfall, humidity, and temperature.
3. The mosquitoes infected with Wolbachia bacteria can control dengue.

Choose the correct code:

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

Q.19) Solution: (b)

Explanation:

- Dengue is a mosquito-borne viral tropical disease.
- It is transmitted by several species of female mosquito within the genus Aedes, principally Aedes aegypti.
- This mosquito also transmits chikungunya, yellow fever, and Zika infection.
- Its symptoms include sudden high fever, severe headaches, pain behind the eyes, severe bone, joint, and muscle pain, etc. **Hence statement 1 is incorrect.**
- According to a study, the ongoing spread of Dengue in India has been attributed to a late withdrawal of monsoon.
- Dengue transmission is closely associated with three key factors — rainfall, humidity, and temperature — which dictate the geographies in which dengue spreads and the transmission rate. **Hence statement 2 is correct.**
- The mosquitoes infected with Wolbachia bacteria can **control dengue**.
- The scientists infected some mosquitoes with Wolbachia and then released them in the city where they bred with local mosquitoes until nearly all mosquitoes in the area were carrying Wolbachia bacteria. This is called the Population Replacement Strategy.
- At the end of 27 months, the researchers found that the incidence of dengue was 77% lower in areas where Wolbachia-infected mosquitoes had been released, as compared to areas without such deployments. **Hence statement 3 is correct.**

Q. 20) Consider the following statements about the Global Hunger Index

1. It is an annual report by the World Economic Forum.
2. It is assessed on indicators such as undernourishment and child stunting.
3. The GHI score of 100 implies no hunger.

Choose the correct code:

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

d) 2 only

Q.20) Solution: (d)

Explanation:

- The Global Hunger Index is an **annual report by** European NGOs of **Concern Worldwide and Welthungerhilfe**.
- The GHI is an annual report and each set of GHI scores uses data from a 5-year period. The 2022 GHI scores are calculated using data from 2017 through 2021.
- **India has ranked 107 out of 121 countries in the Global Hunger Index 2022. Hence statement 1 is incorrect.**
- The Global Hunger Index (GHI) is a tool for comprehensively measuring and tracking hunger at global, regional, and national levels.
- It is assessed on indicators such as undernourishment, child wasting, child mortality, and child stunting. **Hence statement 2 is correct.**
- The GHI score is calculated on a 100-point scale reflecting the severity of hunger - zero is the best score (implies no hunger) and 100 is the worst. **Hence statement 3 is incorrect.**

Q.21) Consider the following statements Ayurswasthya Yojana

1. The scheme is implemented by the Ministry of Ayush.
2. It is a Central Sector Scheme.
3. It has a single component of AYUSH & Public Health (PHI).

Choose the correct statements:

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

Q.21) Solution (c)

Explanation:

- The **Ministry of Ayush is running a Central Sector Scheme** namely, AYURSWASTHYA Yojana. **Hence statement 1 and statement 2 is correct**
- The scheme has **two components (i) AYUSH and Public Health (PHI) and (ii) Centre of Excellence (CoE) from the Financial Year 2021-22. Hence statement 2 is not correct.**
- The CoE is established by merging two erstwhile schemes of this Ministry namely
- Central Sector Scheme of Grant-in-Aid for Promotion of AYUSH Intervention in Public Health Initiatives (PHI)
- Central Sector Scheme for assistance to AYUSH organizations.
- Under the Centre of Excellence component of AYURSWASTHYA Yojana, financial assistance is provided to eligible individual organizations/institutes for establishing and upgrading their functions & facilities and/or for research & development activities in AYUSH.

Source: [CLICK HERE](#)

Q.22) Consider the following statements about Sand Battery

1. A sand battery is a high temperature thermal energy storage that uses sand or sand-like materials as its storage medium.
2. It stores energy in sand as heat.
3. They are used in light weight electric vehicles.

Choose the correct statements:

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

Q.22) Solution (a)

Explanation:

- A **sand battery is a high temperature thermal energy storage** that uses sand or sand-like materials as its storage medium. **Hence statement 1 is correct.**
- **It stores energy in sand as heat. Hence statement 2 is correct.**
- Its main purpose is to work as a **high-power and high-capacity reservoir** for excess wind and solar energy.
- Sand is a very effective medium for retaining heat over a long period, storing power for months at a time.
- The sand has a very long lifetime: it can heat up and cool off any number of times.
- **Sand is a terrible conductor of electricity. Hence statement 3 is correct.**

Source: [CLICK HERE](#)

Q.23) Consider the following statements with respect to 'Aichi Biodiversity Targets'

1. The Aichi Biodiversity Targets laid out a 10-year plan (Strategic Plan for Biodiversity 2011-2020) which had 20 global biodiversity targets divided under five goals
2. A country which has adopted the Aichi Targets is not expected to devise their own national biodiversity strategies separately that would mimic the goals laid out by Aichi
3. The targets apply to Governments, business and stakeholders at all levels to take steps to achieve plans for sustainable production and consumption

Choose the correct answer using the code given below

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) All the above

Q.23) Solution (c)

Explanation:

- The **Aichi Biodiversity Targets laid out a 10-year plan** (Strategic Plan for Biodiversity 2011-2020), **which had 20 global biodiversity targets**, divided under five goals, with a deadline of 2020. The Convention on Biological Diversity (CBD) adopted the Aichi Biodiversity Targets at the Nagoya conference in 2010. **Hence statement 1 is correct.**
- After parties adopted the Aichi Targets, they were **expected to devise their own national biodiversity strategies** that would mimic the goals laid out by Aichi. Nearly all parties created these strategies, but most were never fully implemented. **Hence statement 2 is not correct.**
- Target 4 of ABT - By 2020, at the latest, **Governments, business and stakeholders at all levels have taken steps to achieve or have implemented plans for sustainable production and consumption** and have kept the impacts of use of natural resources well within safe ecological limits. **Hence statement 3 is correct.**

Source: [CLICK HERE](#)

Q.24) Consider the following statements with respect to 'Krishi Udan Scheme 2.0'

1. The main objective of this scheme is to increase share of air carriage in the modal mix for transportation of Agri-produce
2. There is a specific budget allocation under the Union budget to promote this scheme
3. The Scheme is a convergence scheme between Ministry of Civil Aviation, Ministry of Tribal Affairs and Ministry of Development of North-Eastern Region

Choose the correct answer using the code given below

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

d) All the above

Q.24) Solution (c)

Explanation:

- The **main objective of the Krishi Udan Scheme 2.0 is to increase share of air carriage in the modal mix for transportation of Agri-produce**, which includes horticulture, fishery, livestock and processed products. The scheme assists farmers in transporting agriculture products so that it improves their value realisation. **Hence statement 1 is correct.**
- There is **no Specific budget allocation under Krishi Udan Scheme. Hence statement 2 is correct.**
- Krishi Udan Scheme is a **convergence scheme** where eight Ministries/Departments namely Ministry of Civil Aviation, Department of Agriculture & Farmers' Welfare, Department of Animal Husbandry and Dairying, Department of Fisheries, Ministry of Food Processing Industries, Department of Commerce, Ministry of Tribal Affairs, Ministry of Development of North-Eastern Region. **Hence statement 3 is correct.**

Source: [CLICK HERE](#)

Q.25) 'India Inequality Report' is published by

- a) NGO Pratham
- b) Smile foundation
- c) Oxfam India
- d) The Bill & Melinda Gates Foundation

Q.25) Solution (c)

Explanation:

The **NGO Oxfam India** released '**India Inequality Report 2022: Digital Divide**' recently. The report analyses the primary data from Centre for Monitoring Indian Economy's (CMIE) household survey held from Jan 2018 to Dec 2021. The report found that Women constitute only one-third of internet users in India.

Source: [CLICK HERE](#)

Q.26) If in a certain language, MADRAS is coded as NBESBT, how is BOMBAY coded in that language?

- a) CPNCBX
- b) CPNCBZ
- c) CPOCBZ
- d) CQOCBZ

Q.26) Solution (b)

Explanation:

Each letter in the word is moved one step forward to obtain the corresponding letter of the code.

Q.27) If TOUR is coded as 1234, CLEAR is coded 56784 and SPARE as 90847, how will the word SCULPTURE be coded?

- a) 953601347
- b) 567903417
- c) 953016347
- d) 953603741

Q.27) Solution (a)

Explanation:

T = 1

O = 2

U = 3

R = 4

C = 5

L = 6

E = 7

A = 8

S = 9

P = 0.

Hence, SCULPTURE = 953601347

Q.28) If BOX is coded as CDPQYZ, what will be the last letters of word in the same code for HERO?

- a) N, M
- b) M, N
- c) Q, P
- d) P, Q

Q.28) Solution (d)

Explanation:

Last two letters of the word CDPQYZ are next two letters of the word BOX.

In the same way, the last two letters of HERO if coded will be P, Q.

Q.29) If Dust is called Air, Air is called Fire, Fire is called Water, Water is called Colour, Colour is called Rain and Rain is called Dust, where do Fish live?

- a) Dust
- b) Fire
- c) Colour
- d) Water

Q.29) Solution (c)

Explanation:

Generally, Fishes live in Water and Water is called Colour in the code. So Fishes live in Colour.

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

Passage 1

Technology will shape the way we educate students in the next decade. A user is not simply a person who uses. For the student, being a user should involve using the latest technology in a free and autonomous manner. This new-found freedom will allow the student to become an active participant in his/her education instead of a passive passenger. In our current technological society, being a user also means being tracked. Tracking a student means having the ability to

target education towards weaknesses and strengths. The ability to accurately customize to the individual has been the holy grail of educational philosophy for many years. This golden age of technological development may soon enable this dream to become a reality.

Q.30) What does the author mean by the term “tracking a student”?

- a) Analysing the strengths and weaknesses of a student and designing an educational syllabus accordingly
- b) Assessing whether a student is paying due attention to the existing curriculum offered by an institute of learning
- c) Analysing the positives and negatives of an educational institute and modifying it suitably to cater to industrial requirements
- d) Following a student to the educational institute that he visits frequently in order to estimate the time he spends there

Q.30) Solution (a)

Explanation:

Refer to, “Tracking a student means having the ability to target education towards weaknesses and strengths. The ability to accurately customize to the individual....”

It can be clearly inferred from the above two sentences given in the passage that by the term ‘tracking a student’ the author meant analysing the performance of a student and designing an educational syllabus accordingly

Hence, option a is the correct answer.