

Q.1) With reference to National Pharmaceutical Pricing Authority, consider the following statements:

1. It is responsible for fixing and revising the prices of pharmaceutical products.
2. It is under Ministry of Health and Family Welfare.
3. Only the prices of drugs that figure in the National List of Essential Medicines (NLEM) are monitored and controlled by the NPPA.

Which of the above statements are correct?

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

Q.1) Solution (c)

Statement analysis

Statement 1: National Pharmaceutical Pricing Authority is responsible **for fixing and revising the prices** of pharmaceutical products as well as the enforcement of the DPCO.

Statement 2: NPPA is an independent body under Department of Pharmaceuticals under the **Union Ministry of Chemicals and Fertilizers**.

Statement 3: Under the provisions of DPCO 2013, **only the prices of drugs that figure in the National List of Essential Medicines (NLEM) are monitored and controlled by the National Pharmaceutical Pricing Authority**.

Q.2) 'One health concept' sometimes seen in news is related to?

- a) Streamlining action against communicable and non-communicable diseases.
- b) Participation of public and private sector in primary, secondary and tertiary health sector.
- c) Maternal health care and child health care strategies.
- d) Interconnectivity among human health, animal health and environment.

Q.2) Solution (d)

Explanation:

The concept of 'One Health', which recognises that health of human beings is connected to health of animals and environment, is gaining importance as most of the contagious diseases affecting humans are zoonotic (animal to man origin) in nature.

Of the contagious diseases affecting humans, **more than 65% are of zoonotic or animal to man origin.** 75% of emerging infectious human diseases have an animal origin.

One Health model facilitates interdisciplinary approach in disease control so as to control emerging and existing zoonotic threats. Current outbreak of COVID-19 still could not find out the actual source of virus. Even though genomics of the virus has been published ambiguity still exists whether it was from bats, snakes, pangolin, etc.

Q.3) National Health Profile is published by

- a) Central Bureau of Health Intelligence
- b) NSSO
- c) NITI Aayog
- d) National Family Health Survey

Q.3) Solution (a)

Explanation:

An updated and credible National Health Data is essential for effective planning, decision-making, monitoring and evaluation of various Health Programmes & Health Sector Development activities.

To achieve this objective, the Central Bureau of Health Intelligence (CBHI), annually brings out a Publication "National Health Profile (NHP), which covers all the major information on Demography, Socio-Economic Status, Disease Morbidity & Mortality, Healthcare Finance, Human Resources in Health and Healthcare Infrastructure.

NHP is an initiative which is at par with international standards of data publications.

Q.4) Which of the following statements with reference to Cytokine storm syndrome is/are incorrect?

1. Cytokines are small proteins released by many different cells in the body to coordinate the body's response against infection and trigger inflammation.

2. Cytokine storm is an immune reaction triggered by the body to fight an infection when it turns severe.
3. Cytokine storm syndrome cannot cause mortality.

Select the appropriate option:

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

Q.4) Solution (d)

Basic information:

The immune systems in our bodies protect us from bacteria, viruses, and parasites by removing them from our systems. The immune system gets activated by things that the body does not recognise as its own. These things are called antigens, and include bacteria, fungi and viruses.

An effective immune system response involves inflammation, an important and indispensable part of the process. The release of inflammatory mediators increases the blood flow to the area, which allows larger numbers of immune system cells to be carried to the injured tissue, thereby aiding the repairing process. However, if this inflammatory response is not regulated, very dangerous consequences can follow. This is when a 'cytokine storm' can be triggered.

Explanation:

Statement 2: Cytokines **are small proteins released by many different cells** in the body to coordinate the body's response against infection and trigger inflammation.

Statement 2: **Cytokine storm —is an immune reaction triggered by the body to fight an infection is known as a cytokine storm when it turns severe.** The body releases too many cytokines, proteins that are involved in immunomodulation, into the blood too quickly. While normally they regulate immune responses, in this case they cause harm and can even cause death. Experts have noticed a violent cytokine storm in several individuals who are critical with COVID infection.

Statement 3: **CSS is seen as a likely major cause of mortality in both the 1918-20 Spanish Flu** that killed more than 50 million people worldwide, and the **H1N1 (swine flu) and H5N1 (bird flu)** outbreaks in recent years.

Q.5) Consider the following pairs and identify the *incorrect* pair:

Report /index : : Published by

- a) World Health Statistics : : World Economic Forum
- b) Healthy states progressive India : : Niti Aayog
- c) COVID-19 Crisis Through a Migration Lens : : World Bank
- d) All of the above are correct

Q.5) Solution (a)

Explanation:

Pair 1: **WHO's annual World Health Statistics reports** present the most recent health statistics for the WHO Member States. The statistics provided by the WHO will help the government in taking necessary policy measures to improve the health standards in the country.

Pair 2: "**Healthy States, Progressive India**" is a **comprehensive Health Index report released by the NITI Aayog**. This report is also known as 'Health Index'. The report ranks states and Union territories innovatively on their year-on-year incremental change in health outcomes, as well as, their overall performance with respect to each other.

Pair 3: "COVID-19 Crisis Through a Migration Lens" has been published by World Bank.

Q.6) Consider the following statements:

- 1. Probiotics are live food supplements used in yoghurt and other fermented milk products.
- 2. Probiotics increases cholesterol absorption and reduces immunity.

Select the correct code

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

Q.6) Solution (a)

Explanation:

Statement 1: Probiotics are live microorganisms that are intended to have health benefits when consumed or applied to the body. **Probiotics are live food supplements used in yoghurt and other fermented milk products.**

Statement 2: Probiotics may have a variety of effects in the body, and different probiotics may act in different ways, thus they contribute to the following:

- They **increase the immunity** and prevent or make diarrheal diseases milder
- They decrease the risk of colon cancer
- The **decrease cholesterol absorption.**
- They produce acids that decrease the pH in the gut and thus increase the absorption of minerals such as calcium and phosphorus.

Q.7) The term CBNAAT and GeneExpert machine is associated with treatment of

- a) Malaria
- b) Parkinson diseases
- c) Alzheimer diseases
- d) Tuberculosis

Q.7) Solution (d)

Explanation:

Cartridge based nucleic acid amplification test (CB-NAAT, GeneXpert,) is an automated cartridge-based molecular technique which not only detects **Mycobacterium Tuberculosis** but also rifampicin resistance within two hours and has been endorsed by WHO as an initial diagnostic test in children suspected of having tuberculosis both in pulmonary and specific forms of extra pulmonary tuberculosis.

Q.8) Consider the following pairs:

<i>Plant diseases / Insects</i>	:	<i>Plant affected</i>
1. Yellow rust diseases	:	Wheat crop
2. Sheath blight diseases	:	Rice
3. Pink Bollworm	:	Cotton
4. Panama diseases	:	Banana

Which of the above given pairs are correctly matched?

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

Q.8) Solution (d)

Statement analysis:

Statement 1: Yellow rust is a fungal disease which turns the crop's leaves into a yellowish colour and stops photosynthesis activity, which eventually could result in a drop of **wheat crop** productivity.

Statement 2: Sheath blight is fungal disease that can cause up to 60 per cent reduction in **rice yield**.

Statement 3: **The pink bollworm** (*Pectinophora gossypiella*) is one of the most destructive pests **of cotton**. Though probably native to India, it is now distributed worldwide. It bores into cotton bolls, devouring blossoms and seeds.

Statement 4: Panama disease (also known as fusarium wilt) is caused by the soil-borne fungus *Fusarium oxysporum* f. sp. *cubense*. Panama disease is considered to be the most destructive **disease of banana in modern times**.

Q.9) Consider the following statements with reference to World Health Organization:

1. WHO is an UN Specialised agency and member of United Nation Sustainable Development group.
2. WHO is funded through assessed contribution from the member states according to their economic strength.
3. WHO has power to sanction its member nation if it does not cooperate with it.

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

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

Q.9) Solution (a)

Statement Analysis:

Statement 1: The World Health Organization is a **specialized agency of the United Nations** responsible for international public health. It was established in 1948 with its headquarter in Geneva. It is also part of **UN Sustainable Development group**, previously called UN development group.

Statement 2: **WHO is funded through a system of assessed and voluntary contributions. Assessed contributions are paid by all member states, and are calculated on the basis of a country's gross national product and population** while Voluntary contributions are amounts voluntarily paid by other UN organisations, private companies, individuals, NGOs as well as member states

Statement 3: WHO's authority is recommendatory in nature unlike bodies like World Trade Organisation (WTO), **it has no ability to issue binding decision or sanction its members.**

Q.10) Consider the following statements:

1. Generic version of drug has same molecular structure as the brand version.
2. Biosimilar medicine costs less than generic drug.
3. Of the Indian pharmaceutical sector, generic drugs constitute the largest segment with a market share of 70%.

Which of the above given statements are correct?

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

Q.10) Solution (b)

Explanation:

Statement 1: **The compounds in the generic versions of a drug have the same molecular structure as the brand-name version**, their quality is essentially the same. The generic drug has the same "active ingredient" as the brand-name drug. This ingredient is the one that cures the patient.

Statement 2: Biosimilar is a biologic medical product that is almost an identical copy of an original product that is manufactured by a different company. They are officially approved versions of original “innovator” products and can be manufactured when the original product’s patent expires (after 20 years).

Generic drugs are chemically identical to the original branded drug and, as such, cost significantly less because they don’t require much testing. Because biosimilars are made from living organisms, though, and don’t contain identical ingredients to their name-brand counterparts, they still require some testing. **So, they cost more than generics, but less than the branded biologic.**

Statement 3: India is considered as the ‘pharmacy of the world’ due to its ability to produce a wide range and great volume of medicines, that too at low costs. It is one of the leading producer of generic medicines. **Of the Indian pharmaceutical sector, generic drugs constitute the largest segment with a market share of 70%.**

Q.11) Which of the following statements are not correct with reference to Transfats?

1. Transfats are largely produced artificially but a small amount also occurs naturally.
2. Saturated fats are more harmful than Transfats.
3. Recently union government proposed to make India Trans Fat free by 2022, a year ahead of target set by World Health Organization.

Select the correct code

- a) 1 and 2 only
- b) 2 only
- c) 3 only
- d) None

Q.11) Solution (b)

Statement Analysis:

Statement 1	Statement 2	Statement 3
Correct	Incorrect	Correct
Trans fatty acids (TFAs) or Trans fats are the most harmful type of fats	TFAs pose a higher risk of heart disease than saturated fats.	In May 2018, WHO called for the global elimination of industrially produced

<p>which can have much more adverse effects on our body than any other dietary constituent.</p> <p>These fats are largely produced artificially but a small amount also occurs naturally. Thus in our diet, these may be present as Artificial TFAs and/ or Natural TFAs.</p>	<p>While saturated fats raise total cholesterol levels, TFAs not only raise total cholesterol levels but also reduce the good cholesterol (HDL), which helps to protect us against heart disease.</p>	<p>TFA by 2023 and In May 2019, WHO released REPLACE action framework which is a roadmap for countries to implement the prompt, complete and sustained elimination of industrially produced TFA from the food supply.</p> <p>Recently union government proposed to make India Trans Fat free by 2022, a year ahead of target set by World Health Organization</p>
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Q.12) Consider the following statement with reference to FSSAI?

1. The Eat Healthy Campaign which focused on daily intake of salt, sugar, fat, phasing out trans-fats has been initiated under FSSAI.
2. Repurpose Used cooking Oil (RUCO) initiative has been launched by FSSAI in order to help companies convert used cooking oils into biofuels.

Select the Incorrect answer using the code below:

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

Q.12) Solution (d)

Explanation:

Incorrect statement is being asked here

Statement Analysis:

Statement 1	Statement 2
Correct	Correct
Eat Healthy Campaign launched by FSSAI focuses on the daily intake of salt, sugar, fat, phasing out trans-fats.	Repurpose Used cooking Oil (RUCO) was launched by FSSAI in order to help companies convert used cooking oils into biofuels (it is also supported by National biofuels policy, 2018). Under this around 64 companies at 101 locations have been identified to enable collection of used cooking oil.

Q.13) Consider the following statements:

1. Orphan diseases comprise both rare diseases and neglected diseases.
2. There is no cure for polio, it can only be prevented by immunization.
3. The purpose of MERA India is to eliminate malaria by 2025.

Which of the statements given above is/are correct?

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

Q.13) Solution (a)

Explanation:

Statement 1: Rare diseases are also called "orphan diseases". They are called orphans because the pharmaceutical industry does not find it profitable to develop market products. **Orphan diseases comprise both rare diseases and neglected diseases.** The most common rare diseases include Haemophilia, Thalassaemia, Sickle-cell Anaemia and Primary Immune Deficiency in children, auto-immune diseases etc.

Statement 2: Polio (poliomyelitis) is a highly infectious viral disease. The poliovirus invades the nervous system and can cause irreversible paralysis in a matter of hours. Polio is spread through person-to-person contact. When a child is infected with wild poliovirus, the virus enters the

body through the mouth and multiplies in the intestine. **There is no cure for polio, it can only be prevented. Polio vaccine, given multiple times, can protect a child for life.**

Statement 3: Malaria is considered to be one of the highly prevalent infectious diseases and the most common cause of death after tuberculosis. Malaria is caused by protozoan parasites (Plasmodium species) and is transmitted from one human to another by the bite of infected Anopheles mosquitoes. **The purpose of Malaria Elimination Research Alliance (MERA) India is to identify, articulate, prioritise and respond to the research needs of the country in a coordinated and combinatorial way to eliminate malaria from India by 2030.**

Q.14) The term Bio-bubble recently in news is associated to?

- a) An innovative technique to reduce the impact of Global warming.
- b) Technique used by plants to protect themselves from insect.
- c) Technique in trial to reduce effect of sun rays.
- d) Sanitised area to contain the spread of CoVid -19.

Q.14) Solution (d)

Explanation:

A bio-bubble is a safe and secure environment isolated from the outside world to minimise the risk of COVID-19 infection. It permits only authorised sports persons, support staff and match officials to enter the protected area after testing negative for COVID-19.

The Board of Control for Cricket in India (BCCI) will provide 'bio secure bubbles' in hotels, training sessions, matches and transportation. Naturally, individuals must be regularly tested, temperature checked with respective health reports filed accordingly.

Q.15) Consider the following statements and select the correct statement/s:

- a) Pandemic is a sudden increase in the number of cases of a disease—more than what's typically expected for the population in that area.
- b) Epidemic is a pandemic that has spread over several countries or continents, affecting a large number of people.
- c) Both (a) and (b)
- d) None of the above

Q.15) Solution (d)

Explanation:

Statement 1: **Epidemic is a sudden increase in the number of cases of a disease—more than what's typically expected for the population in that area.**

Statement 2: **Pandemic is an Epidemic that has spread over several countries or continents, affecting a large number of people.** The last pandemic declared was in 2009 during the outbreak of H1N1 flu, commonly known as the swine flu. The only current pandemic was HIV/AIDS, which started in the 1980s.

Q.16) Consider the following statements with reference to Global Fund to fight AIDS, Tuberculosis and Malaria:

1. It is a partnership of governments, civil society, technical agencies, the private sector and people affected by the diseases.
2. WHO is trustee of funds contributed to the Global Fund to fight AIDS, Tuberculosis and Malaria.

Which of the above statements is/are correct?

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

Q.16) Solution (c)

Basic information:

The Global Fund is a partnership designed to accelerate the end of AIDS, tuberculosis and malaria as epidemics. As an international organization, the Global Fund mobilizes and invests more than US\$4 billion a year to support programs run by local experts in more than 100 countries. In partnership with governments, civil society, and technical agencies, the private sector and people affected by the diseases, we are challenging barriers and embracing innovation.

Statement Analysis

Statement 1: Global Fund was created in 2002 - to end TB, AIDS and Malaria as epidemics. It is a **partnership of governments, civil society, technical agencies, the private sector and people**

affected by the diseases. This multistakeholder international organization maintains its secretariat in Geneva, Switzerland.

Statement 2: The **World Bank is the trustee of funds contributed to the Global Fund.**

Q.17) Consider the following statements:

1. TypBar TCV is the world's first clinically proven conjugate Typhoid vaccine.
2. Schedule H1 Drug are dangerous to take except in accordance with the medical advice.

Which of the statements give above is/are correct?

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

Q.17) Solution (c)

Statement analysis:

Statement 1	Statement 2
Correct	Correct
<p>Typbar TCV is the world's first clinically proven conjugate Typhoid vaccine. And is the only approved vaccine for children and infants less than 2 years of age.</p> <p>Typhoid bacteria can be treated with antibiotics but the microbes have developed resistance against multiple antibiotics.</p> <p>Extensively drug-resistant (XDR) typhoid outbreaks have been found in India, Bangladesh, and Pakistan.</p>	<p>Schedule 1 Drug are not to be sold by retail without the prescription of a Registered Medical Practitioner. The Drugs falling under Schedule H1 are required to be sold in the country with the following conditions</p> <ul style="list-style-type: none"> • The supply of a drug specified in Schedule H1 shall be recorded in a separate register at the time of the supply giving the name and address of the prescriber, the name of the patient, the name of the drug and the quantity supplied and such records shall be maintained for three years and be open for inspection. • The drug specified in Schedule H1 shall be

Pakistan is also the first country to introduce the typhoid conjugate vaccine as part of its national immunisation programme.

labelled with the symbol Rx which shall be in red and conspicuously displayed on the left top corner of the label.

Q.18) Consider the following statements:

1. International Health regulation is an agreement between countries to work together for global health security.
2. Coalition for epidemic preparedness innovation is working to accelerate the development of vaccines against emerging infectious diseases.

Which of the above statements is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 and 2

Q.18) Solution (c)

Statement Analysis

Statement 1: International Health regulation represents an agreement between 196 countries including all WHO Member States to work together for global health security. It was signed in 2005, Through IHR, countries have agreed to build their capacities to detect, assess and report public health events.

Statement 2: CEPI is an innovative global partnership between public, private, philanthropic, and civil society organisations. CEPI is working to accelerate the development of vaccines against emerging infectious diseases. CEPI's initial priority pathogens include Middle East respiratory syndrome (MERS), Lassa, Nipah, Chikungunya and Rift Valley Fever.

Q.19) Consider the following statements:

1. Phage therapy is the therapeutic use of bacteriophages to treat bacterial infections.
2. Serial interval is the duration between symptom onset of a primary case and symptom onset of secondary cases (contacts) generated by the primary case.

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

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

Q.19) Solution (d)

Explanation:

Note: incorrect statements are asked.

Statement 1: The practice of phage therapy, **which uses bacterial viruses (phages) to treat bacterial infections**, has been around for almost a century. The universal decline in the effectiveness of antibiotics has generated renewed interest in revisiting this practice. Conventionally, phage therapy relies on the use of naturally-occurring phages to infect and lyse bacteria at the site of infection.

Statement 2:- **Serial interval is the duration between symptom onset of a primary case and symptom onset of secondary cases (contacts) generated by the primary case.** it helps to gauge the effectiveness of infection control interventions besides indicating rising population immunity and forecast future incidence.

Q.20) Which of the following are correct with reference to National Family Health Survey?

1. The MoH&FW has designated IIPS(International Institute for Population Sciences) as the nodal agency for NFHS.
2. According to the latest data of NFHS there has been decrease in stunting and wasting among children in several states.
3. There has been total five National Family Health Survey till now.

Select the correct code:

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

Q.20) Solution (c)

Statement analysis:

Statement 1: **The Ministry of Health and Family welfare has designated IIPS(International Institute for Population Sciences) as the nodal agency for NFHS.** NFHS is a large-scale, multi-round survey conducted in a representative sample of households throughout India. NFHS is a collaborative project of IIPS, Mumbai and others institutions like.

NFHS was funded by the United States Agency for International Development (USAID) with supplementary support from United Nations Children's Fund (UNICEF).

Statement 2: **Accordin to the latest data there has been an increase in stunting and wasting among children in several states,** a rise in obesity in women and children, and an increase in spousal violence.

Statement 3: This is the fifth NFHS and refers to the 2019-20 period. The first four referred to 1992-93, 1998-99, 2005-06 and 2015-16, respectively.

Q.21) Consider the following statements regarding leafletted leaf-nosed bat:

1. It is endemic to India.
2. It is found only in the States of Karnataka and Tamil Nadu.
3. It is a 'Critically Endangered' species as per IUCN Red List.

Which of the statements given above is/are correct?

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

Q.21) Solution (c)

Statement 1	Statement 2	Statement 3
Correct	Incorrect	Correct
Kolar leaf-nosed bat or leafletted leaf-nosed bat is a species of bat in the	Its natural habitats are subtropical or tropical dry forests and caves. It is found only in one cave in	Its population is less than 200 individuals and is ' Critically Endangered (CR) '

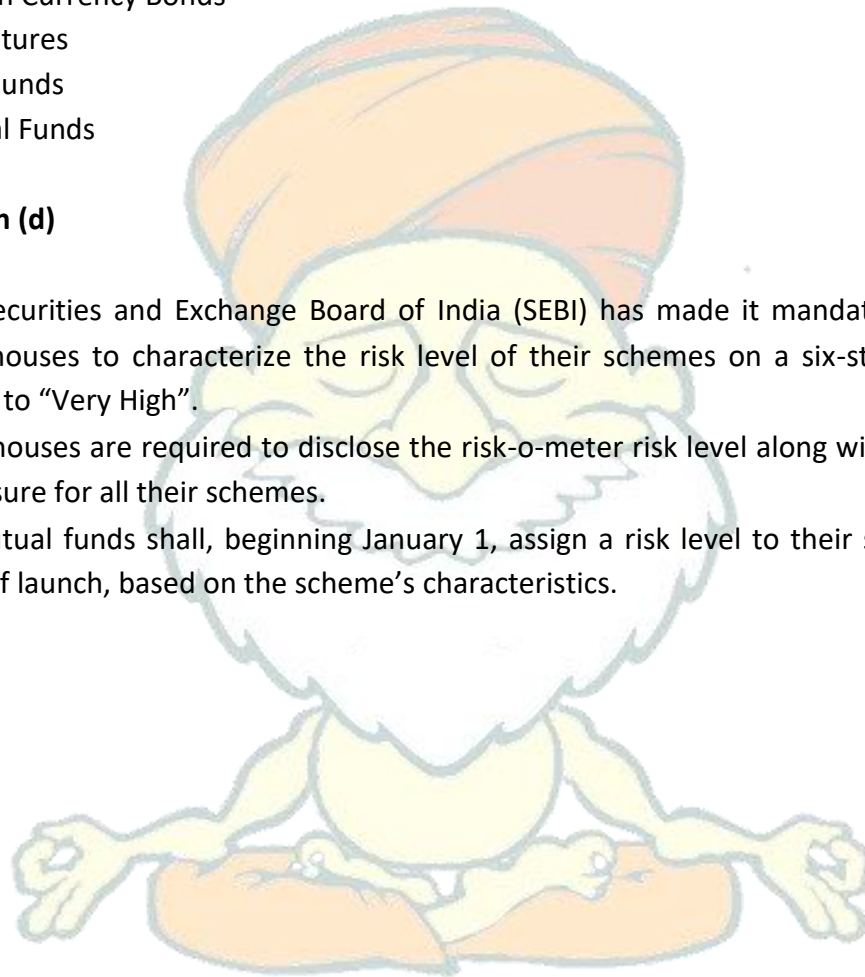
family Hipposideridae. It is endemic to India.	Hanumanahalli village in the Kolar district of Karnataka.	in IUCN Red List.
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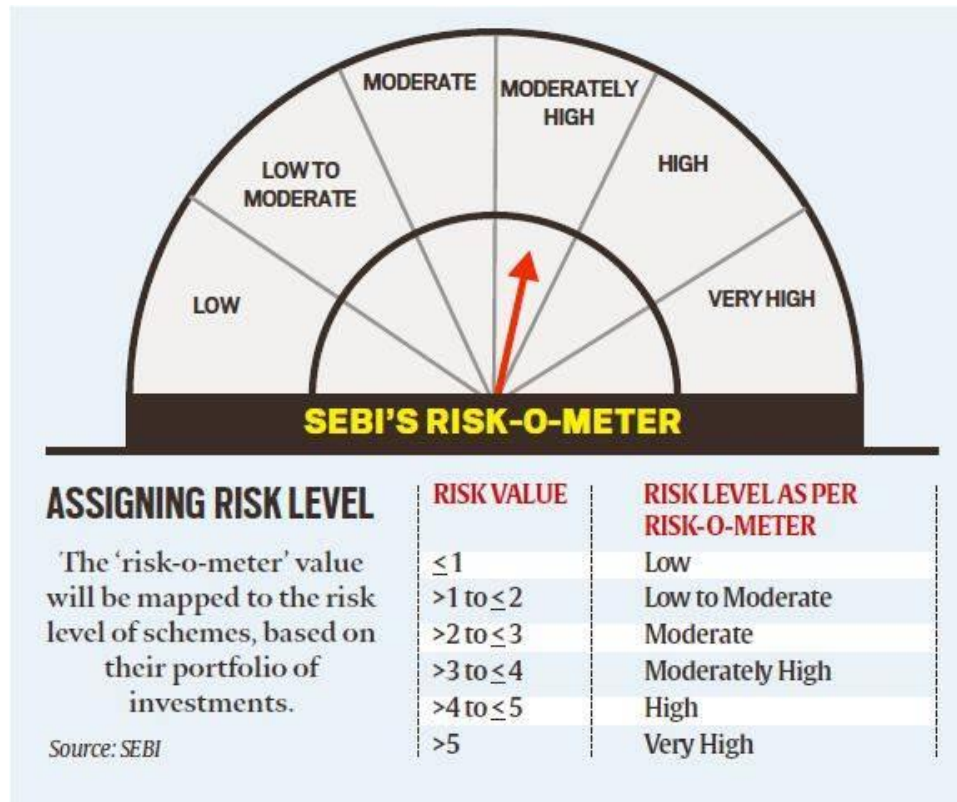
Q.22) The Securities and Exchange Board of India (SEBI)'s Risk-O-Meter assesses risk levels associated with which of the following?

- a) Foreign Currency Bonds
- b) Debentures
- c) Debt Funds
- d) Mutual Funds

Q.22) Solution (d)

- The Securities and Exchange Board of India (SEBI) has made it mandatory for mutual fund houses to characterize the risk level of their schemes on a six-stage scale from “Low” to “Very High”.
- Fund houses are required to disclose the risk-o-meter risk level along with the portfolio disclosure for all their schemes.
- All mutual funds shall, beginning January 1, assign a risk level to their schemes at the time of launch, based on the scheme’s characteristics.





Q.23) With reference to 'SAHAYAK-NG', consider the following statements:

1. It is India's first indigenously designed and developed Air Dropped Container.
2. It has capability to carry a payload that weighs upto 50 kg.
3. Its successful maiden test trial is conducted by Defence Research and Development Organisation (DRDO) along with Indian Air Force.

Which of the statements given above is/are correct?

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

Q.23) Solution (b)

Statement 1	Statement 2	Statement 3
Correct	Correct	Incorrect
SAHAYAK-NG is India's first indigenously designed and developed Air Dropped Container from IL 38SD aircraft (Indian Navy).	It reduces the requirement of ships to come close to the coast to collect spares and stores. SAHAYAK-NG is an advanced version of SAHAYAK Mk I. The newly developed GPS aided air dropped container is having the capability to carry a payload that weighs upto 50 kg and can be dropped from heavy aircraft.	Defence Research and Development Organisation (DRDO) along with Indian Navy conducted the successful maiden test trial of 'SAHAYAK-NG' off the coast of Goa.

Q.24) India recently signed Memorandum of Cooperation (MoC) on Partnership in "Specified Skilled Worker" with which of the following country?

- a) United Arab Emirates (UAE)
- b) United Kingdom
- c) Japan
- d) Australia

Q.24) Solution (c)

- Cabinet recently approved signing of **Memorandum of Cooperation (MoC) between India and Japan on Partnership in "Specified Skilled Worker"**.
- The present MoC would set an institutional mechanism for partnership and cooperation between India and Japan on sending and accepting skilled Indian workers, who have qualified the required skill and Japanese language test, to work in fourteen specified sectors in Japan.
- These Indian workers would be granted a new status of residence of "Specified Skilled Worker" by the Government of Japan.

Q.25) Geological Survey of India (GSI) has found promising concentrations of vanadium for the first time in which of the following regions of India?

- a) North East India

- b) Chota Nagpur Plateau
- c) Deccan Plateau
- d) North Western Mineral Belt

Q.25) Solution (a)

- Vanadium is a chemical element with the symbol V and atomic number 23. It is a hard, silverygrey, malleable transition metal. The elemental metal is rarely found in nature.
- The Geological Survey of India (GSI) found promising concentrations of vanadium in the palaeoproterozoic carbonaceous phyllite rocks in the **Depo and Tamang areas of Papum Pare district in Arunachal Pradesh.**
- This was the first report of a primary deposit of vanadium in India, with an average grade of 0.76% V₂O₅ [vanadium pentoxide].
- The largest deposits of vanadium in the world are in China, followed by Russia and South Africa. China, which produces 57% of the world's vanadium, consumed 44% of the metal in 2017.

Q.26) With reference to One Planet Summit, consider the following statements:

1. It aims to promote worldwide ecological transformation.
2. It has been co-organized by France, United Nations and World Bank.

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.26) Solution (c)

Statement 1	Statement 2
Correct	Correct
The One Planet summit is an international event that focused on biodiversity to mobilize	It has been organised by France in cooperation with the United Nations and

commitments to protect the ecosystems and make links to human health. **The Summit aims to promote worldwide ecological transformation.**

the World Bank. "Let's act together for nature" is the theme of One Planet summit 2021.

Q.27) Consider the following statements regarding Patharughat uprising:

1. It is a tribal movement against the transfer of their lands to outsiders.
2. It occurred before the Sepoy Mutiny of 1857.

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.27) Solution (d)

Statement 1	Statement 2
Incorrect	Incorrect
In 1893, the British government decided to increase agricultural land tax reportedly by 70- 80 per cent in Assam. The unarmed peasants were protesting against the increase in land revenue levied by the colonial administration, when the military opened fire. In Patharughat, despite these gatherings being democratic, the British perceived them as "breeding grounds for sedition" and opened fire.	Patharughat peasant uprising took place on January 28, 1894 in Assam i.e. after 1857 revolt.

Q.28) As per the new 'School Bag Policy, 2020', school bags should not be more than

- a) 5% of the bodyweight of students
- b) 10% of the bodyweight of students
- c) 15% of the bodyweight of students
- d) 20% of the bodyweight of students

Q.28) Solution (b)

- The Directorate of Education has issued a circular asking schools to follow the new **'School Bag Policy, 2020'** released by the National Council of Educational Research and Training (NCERT).
- It lays down the guidelines on homework and weight of school bags for classes I to XII.
- Provisions of Policy
 - i. As per the new policy, **school bags should not be more than 10% of the bodyweight of students across classes I to X** and there should be no bags in pre-primary students.
 - ii. It recommends no homework up to class II and a maximum of two hours per week for classes III to V, one hour a day for classes VI to VIII and two hours a day for classes IX and above.
 - iii. The policy will also require schools to introduce infrastructural changes as students will not be able to carry many books daily.
 - iv. The schools need to provide lockers right from preschool to senior secondary to enable children to leave books in school and carry home only what is required.

Q.29) Which of the following country has the unique distinction of being the only country in the world producing all Five major types of silk?

- a) India
- b) China
- c) Brazil
- d) Thailand

Q.29) Solution (a)

- **India has the unique distinction of being the only country producing all the five kinds of silk** namely, Mulberry, Eri, Muga, Tropical Tasar and Temperate Tasar. Among them, mulberry silk is the most popular variety, which contributes around 79% of the country's silk production.
- Silk varieties and their major growing areas are:
 - Mulberry silk mainly in Karnataka;
 - Temperate tussar silk in Maharashtra, WB, Odisha, Jharkhand, Andhra Pradesh;

- Tropical tussar silk in sub-himalayan belt (Manipur, Assam, Meghalaya,etc);
- Muga silk in Assam and
- Eri silk in Assam, Odisha, Bihar.

Q.30) With reference to the Asian Development Bank (ADB), consider the following statements:

1. All the members of ADB are Asian countries.
2. ADB is modelled closely on the World Bank, and has a similar weighted voting system.
3. ADB is headquartered at Shanghai, China.
4. Among its members, China holds the largest proportion of its shares.

Which of the statements given above is/are NOT correct?

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

Q.30) Solution (d)

Statement 1	Statement 2	Statement 3	Statement 4
Incorrect	Correct	Incorrect	Incorrect
Asian Development Bank (ADB) is a regional development bank established in 19 December 1966. The bank admits the members of the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) and non-regional developed countries. ADB now has 68 members, 49 from within Asia.	The bank promotes social and economic development in Asia. It is modelled closely on the World Bank, and has a similar weighted voting system where votes are distributed in proportion with members' capital subscriptions.	ADB is Headquartered at Ortigas Center, Mandaluyong, Metro Manila, Philippines.	As of 31 December 2019, ADB's five largest shareholders are Japan and the United States (each with 15.6% of total shares), the People's Republic of China (6.4%), India (6.3%), and Australia (5.8%).

Directions for the following questions:

Read the following 2 (two) passage and answer the questions that follow each passage. Your answer to these questions should be based on passage only.

Passage 1

Urbanisation is a positive phenomenon provided the cities are able to harness its potential. A recently public published UN-Habitat global report on human settlements shows that not many cities in developing countries such as India have managed to do this. Indian cities struggle to manage the swelling numbers. They tend to have inadequate infrastructure poor mobility and a lack of affordable housing. The challenge they face is twofold, efforts to distribute growth across urban centres have been inadequate and the urban planning practices are outdated. Much attention is paid to mega cities, leaving the smaller cities largely unattended. Of the 5161, urban centres, as the eleventh five year plan points out, only 1500 have some form of plan to manage their growth. With quality of life suffering and the smaller cities, more people tend to move to the metros, burdening them further. Although, the need for developing small and medium-size towns was highlighted as early as 1988, by the first National Commission on Urbanisation, not much has happened on that front. As for the bigger cities, the additional attention and the presence of a master plan have not necessarily meant improvement, managing a city through a single unified master plan has failed to deliver.

Q.31) It is implied in the passage that

- a) Cities India have not been able to reap the real benefits of urbanisation due to lack of proper planning
- b) Urbanisation is not a desirable phenomenon
- c) Urbanisation offers the solution for all the problems that smaller cities face
- d) None of the above

Q.31) Solution (a)

The answer is hidden in the first two lines. The cities of developing countries have not actually made use of the concept of urbanisation.

Hence option c is the correct answer.

Passage 2

Many people like to eat pizza, but not everyone knows how to make it. Making the perfect pizza can be complicated, but there are lots of ways for you to make a more basic version at home. When you make pizza, you must begin with the crust. The crust can be hard to make. If you want to make the crust yourself, you will have to make dough using flour, water, and yeast. You will have to knead the dough with your hands. If you do not have enough time to do this, you can use a prepared crust that you buy from the store.

After you have chosen your crust, you must then add the sauce. Making your own sauce from scratch can take a long time. You have to buy tomatoes, peel them, and then cook them with spices. If this sounds like too much work, you can also purchase jarred sauce from the store. Many jarred sauces taste almost as good as the kind you make at home.

Now that you have your crust and your sauce, you need to add the cheese. Cheese comes from milk, which comes from cows. Do you have a cow in your backyard? Do you know how to milk the cow? Do you know how to turn that milk into cheese? If not, you might want to buy cheese from the grocery store instead of making it yourself.

When you have the crust, sauce, and cheese ready, you can add other toppings. Some people like to put meat on their pizza, while other people like to add vegetables. Some people even like to add pineapple! The best part of making a pizza at home is that you can customize it by adding your own favourite ingredients.

Q.32) Which of the following words best describes how the author feels about making a pizza from scratch?

- a) Helpful
- b) Understanding
- c) Enthusiastic
- d) Negative

Q.32) Solution (d)

In paragraph 2 the author writes, "If you want to make the crust yourself, you will have to make dough using flour, water, and yeast. You will have to knead the dough with your hands." In paragraph 3 the author writes, "Making your own sauce from scratch can take a long time. You have to buy tomatoes, peel them, and then cook them with spices." In paragraph 4 the author writes, "Do you have a cow in your backyard? Do you know how to milk the cow? Do you know how to turn that milk into cheese?" In all of these quotations, the author talks about how hard it is to make a pizza from scratch. The author uses negative language to highlight this difficulty. This lets us know that the author is feels negative about making pizza from scratch. Choice (d) is correct. Choices (a), (b), and (c) all contain positive words. However, the author is negative about making a pizza from scratch. Therefore these choices are incorrect.

Q.33) Three containers A, B and C are having mixtures of milk and water in the ratio of 1:5, 3:5, 5:7 respectively. If the capacities of the containers are in the ratio 5:4:5, find the ratio of milk to water, if all the three containers are mixed together.

- a) 53:113
- b) 53:115
- c) 54:115
- d) 55:115

Q.33) Solution (b)

Using the weighted average formula we can calculate the weight of milk,

$$\Rightarrow [5*(1/6) + 4*(3/8) + 5*(5/12)]/(5+4+5) = 53/168$$

So weight of water = $168 - 53 = 115$

Therefore, the ratio of milk to water = 53:115

Q.34) A vessel contains a mixture of milk and water in the respective ratio of 5:1. 24 litre of the mixture was taken out and replaced with the same quantity of milk so that the resultant ratio between the quantities of milk and water in the mixture was 13:2 respectively. If 15 litre of the mixture is again taken out from the vessel, what is the resultant quantity of milk (in litre) in the mixture?

- a) 89
- b) 91
- c) 78
- d) 93

Q.34) Solution (b)

Initial ratio of M:W = 5:1

24 Litres is removed from mix i.e. 4 Litres of water is removed and 20 Litres of milk is removed

Then 24 Litres of milk is added.

Therefore, effectively 4 Litres of milk is added in the mixture.

Now, the ratio of M:W becomes 13:2

Let the initial quantity of milk be '5x' L and water be 'x' L

Therefore, $(5x + 4)/(x - 4) = 13/2$

→x = 20 litres

Therefore, initially, milk = 100 L and water = 20 L

After first replacement, Milk = 100+4 = 104 litres and water = 16 litres

Now, we remove 15 litres from the mixture in the ratio of M:W = 13:2

Therefore, the remaining quantity of milk = 104-13 = 91 litres

Q.35) If in the English alphabet, every alternate letter from B onwards is written in small letters while others are written in capitals, then how will the 3rd day from Tuesday will be coded?

- a) WeDNeSdAY
- b) frIdAY
- c) WEdnESdAY
- d) fRIdAY

Q.35) Solution (b)

The small letters are b, d, f, h, j, l, n, p, r, t, v, x, z.

The third day from tuesday will be friday and code will be frIdAY.