

Q1: Consider the following statements regarding ground level ozone?

1. Primary component of photochemical smog.
2. It laid to increase in ultra violet radiation
3. It results in decrease of natural vitamin D production.

Select the correct answer using the code given below:

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

Q2: Consider the following statements regarding Green Diesel?

1. Green diesel is produced from molasses of sugarcane.
2. It is a true hydrocarbon just like diesel.
3. It is chemically same as biodiesel.

Select the correct answer using the code given below:

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

Q3: Consider the following statements:

1. In fresh water average concentration of dissolved oxygen is more than air.
2. Water temperature changes more rapidly than air temperature

Select the correct answer using the code given below:

- (a) 1 only

- (b) 2 only
- (c) Both
- (d) None

Q4: The 'Red Data Book' is the documentation of rare and endangered species of:

1. Animals
2. Plants
3. Fungi

Select the correct answer using the code given below:

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

Q5: Consider the following statements regarding Indian island located in Arabian Sea?

1. They are all of coral origin
2. They all receive frontal rainfall
3. They have an equatorial type of vegetation

Select the correct answer using the code given below:

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

Q6: Consider the following statements regarding Intergovernmental Panel on Climate Change (IPCC)?

1. The IPCC carry out its own original research and do the work of monitoring climate related phenomena itself.

2. IPCC is a scientific intergovernmental body under the United Nations

Select the correct answer using the code given below:

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

Q7: Which of the following statement/s is/are correct regarding Sustainable Development Goals (SDGs)?

- 1. The SDGs were in the context of “rich donors aiding poor recipients.”
- 2. The title of the agenda is- ‘Transforming our World: the 2030 Agenda for Sustainable Development.’

Select the correct answer using the code given below:

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

Q8. Which of the following is/are example/s of foot loose industry?

- 1. Foot wear industry
- 2. Small scale industry
- 3. Textile manufacturing industry

Select the correct answer using the code given below:

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

Q9:Keystone species are important in an ecosystem because:

- (a) They determine the genetic diversity of an ecological community.
- (b) They are important in determining the ability of a large number of other species to persist in the community.
- (c) They are found at the edge of an ecosystem and signal the shift in ecosystems.
- (d) They are rare in the ecosystem and stand at the top of the food web

Q10: Consider the following gases:

1. Nitrogen
2. Hydrogen
3. Carbon monoxide
4. Neon
5. Helium

Which of the above gases are permanent gases of atmosphere?

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

Q11: Consider the following statements.

1. The Eastern coast of India has greater frequency of cyclones than the Western coast.
2. The Western coast of India has greater intensity of cyclones than the Eastern coast.

Select the correct answer using the code given below?

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

Q12: In the convergence of warm and cold air which of the following rainfall occur?

- (a) Convectonal rainfall
- (b) Orographic rainfall
- (c) Frontal rain
- (d) None

Q13: Consider the following statements about world climate region?

- 1 Great annual temperature range
- 2 This area is world's greatest rice growing area
- 3 Oak, camphor, and camellia are good sources of economic value

Which of the following world climate region fulfils the above mentioned statements?

- (a) China type
- (b) Steppe type
- (c) British type
- (d) Sudan type

Q14: Consider the following statements about urban heat island phenomenon?

1. By absorption of a high percentage of radiation by the built mass in urban areas
2. By high density and high rise constructions
3. In low rise built up areas

Select the correct answer using the code given below:

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

Q15: The most common condition for inversion of temperature is through the cooling of the air near the ground at night. Which of the following statement is correct about surface inversion?

1. Surface inversion is stronger and more common during the summer months
2. During the daylight hours, surface inversions normally weaken and disappear as the sun warms the earth surface.

Select the correct answer using the code given below:

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

Q16: Horizontal wind circulation near the earth surface is due to

1. Pressure gradient
2. Frictional force
3. Coriolis force

Select the correct answer using the code given below:

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

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

Q17: Consider the following pairs

- 1. Typhoons : West Indies
- 2. Hurricanes : China Sea
- 3. Tropical cyclone : Indian Ocean

Which of the above pair/s is/are correctly matched?

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

Q18: Which of the following can help in reducing global warming and its effects?

- 1. By reducing the use of nitrogenous fertilizers in agriculture
- 2. By increasing the vegetation cover
- 3. By reducing urban heat islands

Select the correct answer using the code given below:

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

Q19: Which of the following factors affect the spatial and vertical temperature distribution in ocean waters?

- 1. Latitude

2. Continentality
3. Natural vegetation and soil
4. Ocean currents

Choose the correct answer using the codes below.

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

Q20: Consider the following statement:

1. Compilation of Suttapitaka and Vinay pitaka
2. Compilation of Abhidammapiṭaka
3. Decision to send missionary to various parts of the world.

In the third Buddhist council during the Ashoka's era which of the above outcome took place?

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

Q21: Buddhism was patronized more than Hinduism by some of the Greek rulers in India because:

- (a) Greeks did not want to conquer any Indian territories with war and violence
- (b) Greeks did not believe in idol worship, the concepts of penance and renunciation
- (c) Greeks did not believe in the concept of castes and rituals in Hinduism
- (d) Greeks found embracing Buddhism as a simple tool to assimilate and access the Indian culture and society prevailing at that time

Q22: Consider the following about the use of musical instruments in Indian music.

- 1 Sitar is the main instrument of Carnatic music.
2. Veena is used in Hindustani music.
3. Flutes are used both in Carnatic and Hindustani music.

Select the correct answer using the code given below:

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 3 only
- (d) None of the above

Q23: 'Karma' as a means of liberation has been depicted in which of the following philosophies?

1. Mimansa
2. Gnana
3. Samkhya
4. Carvaka

Select the correct answer using the code given below:

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

Q24: Triratna is three Gems of Jainism. Which of the following is/are not the part of Triratna?

1. Right faith
2. Right conduct
3. Right livelihood
4. Right observation

Select the correct answer using the codes below.

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

Q25: There are three schools of sculpture originated during the time of Mauryan period. Which of the following is related to Saka Kushans dynasty?

1. Amravati school
2. Gandhar school
3. Mathura school

Select the correct answer using the codes below.

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

Q26: Which of the following architecture contain fusion of Indian–Greek--Roman style?

- (a) Ellora cave
- (b) Ajanta cave
- (c) Mathura school of art
- (d) Gandhar school of art

Q27: Which of the following statement is correct about both Bhakti and Sufi movement?

1. Both put breaks on orthodoxy
2. Both wanted development of regional language.
3. Both encouraged social reform measures.

Select the correct answer using the codes below.

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

Q28:BrahmoSamaj established by Raja Ram Mohan Roy. It was one of the most influential religious movements responsible for the making of modern India. Consider the following statement about BrahmoSamaj?

1. The Samaj was open for all caste and creeds.
2. Brahma is the supreme immortal soul from whom all humans are originated, so only Brahma's idol or image can be used for his worship.
3. The worship was performed through prayers and meditation and readings from Upanishads.

Select the correct answer using the code given below:

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

Q29: The indigo revolt was a peasant movement and subsequent uprising of indigo farmers against the indigo planters that arose in Bengal in 1859. Consider the following statement about indigo revolt?

1. The revolt was not supported by Bengali middle class who sided with British administration and planters to suppress the peasants.
2. The peasants got support from Indian Press in Calcutta as well as the aid of some Calcutta-trained lawyers.

Which of the above statement/s is/are **incorrect**?

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

Q30: 'One Religion, one caste and one God for Mankind' was preached by which of the following personality?

- (a) Swami Dayananda
- (b) Raja Ram Mohan Roy
- (c) Sri Narayan Guru
- (d) Dr B.R. Ambedkar

Q31: The Viceroy of India Lord Linlithgow made the so-called **August Offer**. Which of the following statement about August Offer is **incorrect**?

- (a) An immediate increase in the number of Indians in the Viceroy's executive council.
- (b) Setting up a war advisory council.
- (c) Setting up the provisional national government.
- (d) Setting up a representative Constitution making body after the war.

Q32: Which of the following recommended universal adult suffrage, dominion status, equal rights for women, freedom to form unions, and dissociation of the state from religion in any form?

- (a) Nehru Report
- (b) Congress Session of 1929
- (c) C. Rajagopalachari Proposals
- (d) Indian Independence Act of 1947

Q33: Which of the following is a feature of Quit India Movement (BhāratChhodhoĀndolan)?

1. The emergence of "parallel government" in some parts of the country.
2. It saw participation of youth, women, peasants etc.
3. It was a non-violent Movement.
4. Movement was a spontaneous outburst.
5. There were communal clashes during the Movement.

Select the correct answer using the code given below:

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

Q34: Which one of the following comes under the jurisdiction of both the High Court and the Supreme Court?

- 1- Dispute between the centre and the states.

- 2- Protection of the Fundamental Rights.
- 3- Protection against the violation of the Constitution.

Select the correct answer using the code given below:

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

Q35:Which one of the following is not explicitly stated in the Constitution of India but followed as a convention.

- 1- The Finance Minister is to be a member of the lower house
- 2- The Prime Minister has to resign if he loses majority in the lower house
- 3- All the parts of India are to be represented in the Council of Ministers.

Select the correct answer using the code given below:

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

Q36:Which of the following statement is correct?

- (a) The Constitution of India explicitly prohibits the appointment of a nominated member of the Rajya Sabha to the post of a minister.
- (b) All members of the Rajya Sabha are elected by the members of state legislative assemblies only.
- (c) A contesting candidate to the Rajya Sabha should ordinarily be a resident of the state where he is contesting is not compulsory
- (d) As the vice President is the ex-officio chairman of the Rajya Sabha, only a member of the Rajya Sabha can contest for the office of the Vice President

Q37: Who among the following have the right to vote in the elections to both the Lok Sabha and the Rajya Sabha?

- (a) Elected members of the lower house of the Parliament
- (b) Elected members of the upper houses of the Parliament
- (c) Elected members of the upper house of the state legislature
- (d) Elected members of the lower house of the state legislature

Q38: Match list I & list II

**List I**

Feature of Indian Constitution

- (a) Fundamental Rights
- (b) Emergency Provisions     2 - USA
- (c) Parliamentary System of government
- (d) DPSP

**List II**

(Borrowed From)

- 1 -U.K
- 3 -Ireland
- 4- Germany
- 5- Canada

Codes

A	B	C	D
(a) 2     4	1	3	
(b) 5 1	3	4	
(c) 2	1	4	3
(d) 1	2	4	3

Q39: Governor is the Constitutional head of each of the twenty-nine states. Article 156 of the Constitution of India Provides that a governor shall hold office for a term of five years from the date on which he enters upon his office?

- 1- No Governor can be removed from office till the completion of his term
- 2- No Governor can continue is office beyond a period of five years

Select the correct answer using the code given below:

- (a) 1 only
- (b) 2 only

- (c) Both 1 and 2
- (d) Neither 1 and 2

Q40: Which of the following are not the federal features of the Constitution?

- 1- Supremacy of Constitution
- 2- All India services
- 3- Single citizenship
- 4- Independent judiciary
- 5- Bicameral legislature
- 6- Integrated judiciary

Select the correct answer using the code given below:

- (a) 2 and 6
- (b) 2, 3, 5 and 6
- (c) 2, 3 and 6
- (d) 1, 3 and 4

Q41: The Constitution can be amended by which of the following way?

- 1- Simple majority of the Parliament
- 2- Special majority of the Parliament
- 3- Special majority of the Parliament and the ratification by half of the state legislature

Select the correct answer using the code given below:

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

Q42: The basic structure theory of the Constitution of India implies that:

- (a) Certain features of the Constitution are so essential to it that they can not be abrogated
- (b) Fundamental Rights cannot be taken away
- (c) The Constitution cannot be amended except in accordance with the procedure prescribed in art 368

(d) The Preamble of the Constitution cannot be amended because it is not part of the Constitution

Q43: The 42<sup>nd</sup> Amendment Act of 1976 added four new DPSP to the original list. Which of the following statement/s is/are correct about new added Directive Principles of State Policy?

- 1- To promote equal justice to provide free legal aid to poor
- 2- To take steps to secure the participation of workers in the management of industry
- 3- To secure for all citizens a uniform civil code throughout the country

Select the correct answer using the code given below:

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

Q44: The first schedule of the Indian Constitution pertains to:

- 1) Names of states
- 2) Names of union territories
- 3) Citizenship
- 4) Forms of Oaths and Affirmation

Select the correct answer using the code given below:

- 1) 1 and 3
- 2) 1 and 2
- 3) 4 only
- 4) 1 only

Q45: Consider the following statement with regard to the Preamble of the Indian Constitution?

- 1) The Preamble is a source of power to the legislature
- 2) Preamble is a part of the Constitution
- 3) Preamble cannot be amended
- 4) It is non-justiciable, or it is not enforceable in courts of law.

Select the correct answer using the code given below:

- 1) 2 and 4

- 2) 2 only
- 3) 1, 3 and 4
- 4) 1, 2 and 4

Q46: Non-Banking Financial Company - Micro Finance Institutions (NBFC-MFIs) can serve which of the following purposes in India?

- 1) Education loans
- 2) Loan for income generation activities
- 3) Savings account for the poor

Select the correct answer using the code given below:

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

Q47: Human Development Reports produced by the Human Development Reports Office of the United Nations Development Programme. Which of the following human development indicators are published by the United Nations Development Programme (UNDP)?

- 1) Multi-dimensional Poverty Index (MPI)
- 2) Inequality-adjusted HDI
- 3) Gender Development Index
- 4) Gender Inequality Index

Select the correct answer using the code given below:

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

Q48: Consider the following statements regarding Statutory Liquidity Ratio (SLR)?

- 1) It is the ratio of total deposit of the bank which is kept with RBI.
- 2) It is maintained in non-cash form.

Which of the above statement/s is/are correct?

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

Q49: What constitutes Capital Account?

- 1) External Commercial Borrowing (ECB)
- 2) Global Depository Receipts
- 3) Foreign Portfolio Investments
- 4) Interest Payments on International Investments

Select the correct answer using the code given below:

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

Q50: Recently RBI issued guidelines for the set-up of Payment Banks. What are the activities that Payment Banks can undertake?

- 1) They can accept demand deposits and saving bank deposits
- 2) They can take part in lending activities
- 3) They are exempted to follow Corporate Governance Norms

Which of the above statement/s is/are **incorrect**?

- (a) Only 1

- (b) 2 and 3
- (c) 1 and 2
- (d) None

Q51: Which of the following steps may result in inflation?

- 1) Increase in the repo rate.
- 2) Increase in the indirect taxation rate.
- 3) Proper maintenance of buffer stock of major agricultural products.
- 4) Decrease in the crude oil production.

Select the correct answer using the code given below:

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

Q52: New CPI series with base year 2012 are available for five major groups. For which of those five groups CPI-Rural index is not calculated?

- (a) Food, beverages and tobacco
- (b) Fuel and light
- (c) House Rent
- (d) Clothing, bedding and footwear

Q53: Broad money M3, is most commonly used measure of money supply. Which of the following is/are part of broad money?

- 1) Currency held by the public.
- 2) Demand deposits of the public held by commercial banks.
- 3) Interbank demand deposits held by commercial banks.
- 4) Time deposits of the public held by commercial banks.

Select the correct answer using the code given below:

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

Q54: Recently RBI revamped "priority sector lending" norms. Which of the following are considered as priority sectors?

- 1) Micro and small enterprises
- 2) Medium enterprises
- 3) Export credit
- 4) Renewable energy
- 5) Social infrastructure
- 6) Personal loans

Select the correct answer using the code given below:

- (a) 1, 2, 4 and 5 only
- (b) 1, 2, 3, 5 and 6 only
- (c) 1, 2, 3, 4 and 5 only
- (d) All

Q55: Consider the following statements regarding recently launched MUDRA bank.

- 1) In lending, MUDRA bank focuses on enterprises set up by the under-privileged sections of the society.
- 2) MUDRA is setup as a refinance institution.
- 3) Regulation of micro finance institutions (MFIs) is not the mandate of MUDRA bank.

Which of the above statement/s is/are correct?

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

**Explanation**

1. Answer: C

Ground-level ozone is a colourless and highly irritating gas that forms just above the earth's surface. It is called a "secondary" pollutant because it is produced when two primary pollutants react in sunlight and stagnant air. These two primary pollutants are nitrogen oxides (NO<sub>x</sub>) and volatile organic compounds (VOCs).

Ozone is a greenhouse gas and initiates the chemical removal of methane and other hydrocarbons from the atmosphere. Thus, its concentration affects how long these compounds remain in the air. It is also known to decrease in ultra violet radiation and results in decrease of natural vitamin D production.

2. Answer: B

Vegetable oil refining is a process to transform vegetable oil into fuel by hydrocracking or hydrogenation.

Hydrocracking breaks big molecules into smaller ones using hydrogen while hydrogenation adds hydrogen to molecules.

These methods can be used for production of gasoline, diesel, propane, and other chemical feedstock. Diesel fuel produced from these sources is known as green diesel or renewable diesel.

Based on its feedstock green diesel could be classified as biodiesel; however, based on the processing technology and chemical formula green diesel and biodiesel are different products.

The chemical reaction commonly used to produce biodiesel is known as transesterification. Vegetable oil and alcohol are reacted, producing esters, or biodiesel, and the co-product, glycerol, when refining vegetable oil, no glycerol is produced, only fuels.

3. Answer: D

In fresh water average concentration of dissolved oxygen is less than air.

Water temperature changes less rapidly in water than air temperature.

4. Answer:D

A Red Data Book contains lists of species whose continued existence is threatened. Species are classified into different categories of perceived risk. Each Red Data Book usually deals with a specific group of animals or plants (e. reptiles, insects, mosses).

They are now being published in many different countries and provide useful information on the threat status of the species. The red-listing assessment is a simple logical process to determine the status of threat to a species based on available information. In 2004 a training workshop was conducted in Lao PDR on redlisting assessment methodologies.

The MWBP red-listing process will be conducted on selected species groups in addition to the flagship species. Of the four flagship species of the MWBP, three have been categorized as Critically Endangered (Cr). One of the key outputs of this process is production of a Regional Red Data Book for the Lower Mekong Basin in five languages.

The process:

- Determine through a consultative process which groups of wetland species to carry out red listing process
- Carry out initial red-listing process for flagship and associated species, as part of action planning process
- Organise a training workshop on the Red-listing process

- National expert groups trained government counterparts collect information on species selected, and carry out process at national level
- Regional expert groups meet to collate the data and go through red listing process
- Send results to Species Survival Commission for ratification

5. Answer: D

The Lakshadweep and Minicoy Islands which are situated in the Arabian Sea, consists of forty three islands, encircled by beautiful coral reefs.

The Lakshadweep union territory (Lakshadweep means 100,000 islands) located in the Arabian Sea bears - from the north to south - the Laccadive, Amindivi, Cannanore and Minicoy islands.

Only ten of the islands are populated, are scattered over an area of about seventy seven thousand square kilometres. These islands are located in the sea level and are able to possess limited cultivation

The climatic conditions of these islands are somewhat equatorial with heavy rainfall and high temperatures. They have an equatorial type of vegetation. They are all of coral origin.

6. Answer: B

The Intergovernmental Panel on Climate Change (IPCC) is a scientific intergovernmental body under the auspices of the United Nations.

It was first established in 1988 by two United Nations organizations, the World Meteorological Organization (WMO) and the United Nations

The IPCC produces reports that support the United Nations Framework Convention on Climate Change (UNFCCC), which is the main international treaty on climate change. The ultimate objective of the UNFCCC is to "stabilize greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system." IPCC reports cover "the scientific, technical and socio-economic information relevant to understanding

the scientific basis of risk of human-induced climate change, its potential impacts and options for adaptation and mitigation."

The IPCC does not carry out its own original research, nor does it do the work of monitoring climate or related phenomena itself. The IPCC bases its assessment on the published literature, which includes peer-reviewed and non-peer-reviewed sources.

Thousands of scientists and other experts contribute (on a voluntary basis, without payment from the IPCC) to writing and reviewing reports, which are then reviewed by governments.

7. Answer: B

At the United Nations Sustainable Development Summit on 25 September 2015, world leaders adopted the 2030 Agenda for Sustainable Development, which includes a set of 17 Sustainable Development Goals (SDGs) to end poverty, fight inequality and injustice, and tackle climate change by 2030.

The Sustainable Development Goals, otherwise known as the Global Goals, build on the Millennium Development Goals (MDGs), eight anti-poverty targets that the world committed to achieving by 2015. The MDGs, adopted in 2000, aimed at an array of issues that included slashing poverty, hunger, disease, gender inequality, and access to water and sanitation. Enormous progress has been made on the MDGs, showing the value of a unifying agenda underpinned by goals and targets. Despite this success, the indignity of poverty has not been ended for all.

UNDP supports countries in three different ways, through the MAPS approach: mainstreaming, acceleration and policy support;

Providing support to governments to reflect the new global agenda in national development plans and policies. This work is already underway in many countries at national request;

Supporting countries to accelerate progress on SDG targets. In this, we will make use of our extensive experience over the past five years with the MDG Acceleration Framework; and

Making the UN's policy expertise on sustainable development and governance available to governments at all stages of implementation.

8. Answer: A

Footloose industry is a general term for an industry that can be placed and located at any location without effect from factors such as resources or transport.

These industries often have spatially fixed costs which means that the costs of the products do not change no matter where the product is assembled. Diamonds, foot ware and computer chips are some examples of footloose industries.

9. Answer: B

A keystone species is a species that has a disproportionately large effect on its environment relative to its abundance. Such species are described as playing a critical role in maintaining the structure of an ecological community, affecting many other organisms in an ecosystem and helping to determine the types and numbers of various other species in the community.

The role that a keystone species plays in its ecosystem is analogous to the role of a keystone in an arch. While the keystone is under the least pressure of any of the stones in an arch, the arch still collapses without it.

Similarly, an ecosystem may experience a dramatic shift if a keystone species is removed, even though that species was a small part of the ecosystem by measures of biomass or productivity. It became a popular concept in conservation biology.

Although the concept is valued as a descriptor for particularly strong inter-species interactions, and it has allowed easier communication between ecologists and conservation policy-makers, it has been criticized for oversimplifying complex ecological systems.

10 Answer: C

The permanent gases whose percentages do not change from day to day are nitrogen, oxygen and argon. Nitrogen accounts for 78% of the atmosphere, oxygen 21% and argon 0.9%. Carbon dioxide 0.036%, neon 0.002%, helium 0.0005%, krypton 0.001, hydrogen 0.00005%.

11. Answer: A

The whole coastline of India is vulnerable to cyclones, particularly the east coast. The west coast of India is less vulnerable to cyclonic storms both in terms of intensity and frequency of the cyclones.

Moreover, tornadoes are also not very frequent. Most tornadoes are weak and they rarely reach high speeds upto 300 kmph. Tornadoes are formed within cyclones.

12. Answer: C

**Orographic** precipitation occurs when moist air is forced upwards over rising terrain, such as a mountain.

**Convection** occurs when the Earth's surface, within a conditionally unstable or moist atmosphere, becomes heated more than its surroundings, leading to significant evaporation.

**Frontal precipitation** is caused by frontal systems surrounding extra tropical cyclones or lows, which form when warm and often tropical air meets cooler air.

13. Answer: A

- China type climate found in North and South China, Southern Japan and Korea, South East USA, South Brazil and North Argentina south east coastal region of Africa and New South Wales and Queensland of Australia.
- Found between 30 degree and 40 degree north and south of the equator.
- It has warm moist summer and cool dry winter.
- Summer temperature varies from 21<sup>0</sup> C to 27<sup>0</sup> C and winter temperature from 5<sup>0</sup> C to 12<sup>0</sup> C.
- Rainfall varies from 75 cm to 125 cm and occasionally affected by hurricane.
- This area is world's greatest rice growing area.
- Oak, camphor, and camellia are good source of economic value

14Answer: A

An **urban heat island (UHI)** is a city or metropolitan area that is significantly warmer than its surrounding rural areas due to human activities.

The phenomenon was first investigated and described by Luke Howard in the 1810s, although he was not the one to name the phenomenon. The temperature difference usually is larger at night than during the day, and is most apparent when winds are weak. UHI is most noticeable during the summer and winter.

The main cause of the urban heat island effect is from the modification of land surfaces. Waste heat generated by energy usage is a secondary contributor. As a population centre grows, it tends to expand its area and increase its average temperature.

The less-used term **heat island** refers to any area, populated or not, which is consistently hotter than the surrounding area. There are concerns raised about possible contribution from urban heat islands to global warming. Research on China and India indicates that urban heat island effect contributes to climate warming.

15Answer: B

The most common condition for inversion of temperature is through the cooling of the air near the ground at night.

Once the sun goes down, the ground loses heat very quickly, and this cools the air that is in contact with the ground. However, since air is a very poor conductor of heat, the air just above the surface remains warm.

Conditions that favour the development of a strong surface inversion are calm winds, clear skies, and long nights. Calm winds prevent warmer air above the surface from

mixing down to the ground, and clear skies increase the rate of cooling at the Earth's surface.

Long nights allow for the cooling of the ground to continue over a longer period of time, resulting in a greater temperature decrease at the surface.

Since the nights in the winter time are much longer than nights during the summer time, surface inversions are stronger and more common during the winter months.

During the daylight hours, surface inversions normally weaken and disappear as the sun warms the Earth's surface.

16. Answer:D

Air is set in motion due to the differences in atmospheric pressure. The air in motion is called wind. The wind blows from high pressure to low pressure.

The wind at the surface experiences friction. In addition, rotation of the earth also affects the wind movement.

The force exerted by the rotation of the earth is known as the Coriolis force. Thus, the horizontal winds near the earth surface respond to the combined effect of three forces – The pressure gradient force, the frictional force and the Coriolis force. In addition, the gravitational force acts downward.

#### *Pressure Gradient Force*

The differences in atmospheric pressure produce a force. The rate of change of pressure with respect to distance is the pressure gradient. The pressure gradient is strong where the isobars are close to each other and is weak where the isobars are apart.

#### *Frictional Force*

It affects the speed of the wind. It is greatest at the surface and its influence generally extends upto an elevation of 1 - 3 km. Over the sea surface the friction is minimal.

*Coriolis force*

The rotation of the earth about its axis affects the direction of the wind. This force is called the Coriolis force after the French physicist who described it in 1844. It deflects the wind to the right direction in the northern hemisphere and

17. Answer: C

Typhoons: China Sea

Hurricane: West Indies

18. Answer: D

Nitrogen fertilizers help produce  $N_2O$  which is a greenhouse gas.

Increasing forest cover will act as a carbon sink reducing the amount of  $CO_2$  in the atmosphere.

Urban heat islands preserve the day heat at night too and intensify the heat patterns caused by Global warming. Reducing them will lower the average temperature of cities.

19. Answer: D

The temperature of surface water decreases from the equator towards the poles because the amount of insulation decreases pole ward.

The oceans in the northern hemisphere receive more heat due to their contact with larger extent of land than the oceans in the southern hemisphere.

The winds blowing from the land towards the oceans drive warm surface water away from the coast resulting in the upwelling of cold water from below. It results into the longitudinal variation

in the temperature. Contrary to this, the onshore winds pile up warm water near the coast and this raises the temperature.

Warm ocean currents raise the temperature in cold areas while the cold currents decrease the temperature in warm ocean areas.

Gulf Stream (warm current) raises the temperature near the eastern coast of North America and the West Coast of Europe while the Labrador Current (cold current) lowers the temperature near the north-east coast of North America.

20. Answer: B

First Buddhist Council: 400 BC Held soon after the mahaparinirvana of the Buddha, around 400 BC under the patronage of king Ajatshatru with the monk Mahakasyapa presiding, at Rajgriha, in the Sattapani Cave. The idea was to preserve Buddha's teachings (Sutta) and rules for disciples (Vinaya). Ananda, one of the great disciples of Buddha recited Suttas and Upali, another disciple recited Vinaya. Abhidhamma Pitaka was also included.

Second Buddhist Council: 383 BC. It was held in 383 BC. This idea of this council was to settle a dispute on Vinaya Pitaka, the code of discipline. The dispute was on ten points such as storing salt in horn, eating after midday, eating once and going to villages for alms, eating sour milk after one's meal etc. It was not settled and Buddhism sects appeared for the first time. The subgroups were Sthaviravada, Mahasanghika and Sarvastivada. It was held at Vaishali under the patronage of King Kalasoka and the presidency of Sabakami. Sthaviravada followed the teachings of the elders and Mahasanghika became extinct later. Sthaviravada later continued till 3rd Buddhist council.

Third Buddhist Council: 250 BC Third Buddhist council was held in 250 BC at Pataliputra under the patronage of King Asoka and under the presidency of Moggaliputta Tissa. The teachings of Buddha which were under two baskets were now classified in 3 baskets as Abhidhamma Pitaka was established in this council, and they were known as "Tripitaka". It also tried to settle all the disputes of Vinaya Pitaka. Decision to send missionary to various parts of the world was taken in this council.

Fourth Buddhist Council: 72AD The Fourth Buddhist Council was held at Kundalvana, Kashmir in 72 AD under the patronage of Kushan king Kanishka and the president of this council was Vasumitra, with Aśvaghoṣa as his deputy. This council distinctly divided the Buddhism into 2 sects Mahayan&Hinayan. Another Fourth Buddhist Council was held at Tambapanni (one name of Sri Lanka) at Aloka Lena under the patronage of Vattagamani-Abaya. However, most scholars agree that this was not eligible to be called a Council as it was not under a king but a local chieftain. This council is also related to the cruel policy of Vattagamani-Abaya towards Jains, as it is said that a Jain premises was destroyed and a Mahayan temple was built.

21. Answer: D

Buddhism was patronized more than Hinduism by some of the Greek rulers in India because Greeks found embracing Buddhism as a simple tool to assimilate and access the Indian culture and society prevailing at that time.

22. Answer: C

Veena is the main instrument of Carnatic music. Sitar is used in Hindustani music. Flutes are used both in Carnatic and Hindustani music.

23. Answer: D

Samkhya is one of the six āstika (orthodox) schools of Hindu philosophy. It is most related to the Yoga school of Hinduism, and it was influential on other schools of Indian philosophy. Sāmkhya is an enumerationist philosophy whose epistemology accepts three of six pramanas (proofs) as the only reliable means of gaining knowledge.

Samkhya is strongly dualist. Sāmkhya philosophy regards the universe as consisting of two realities; puruṣa (consciousness) and prakṛti (matter). Jiva (a living being) is that state in which puruṣa is bonded to prakṛti in some form. This fusion, state the Samkhya scholars, led to the emergence of buddhi ("intellect") and ahaṅkāra (ego consciousness). The universe is described by this school as one created by puruṣa-prakṛti entities infused with various permutations and combinations of variously enumerated elements, senses, feelings, activity and mind During the

state of imbalance, one of more constituents overwhelm the others, creating a form of bondage, particularly of the mind. The end of this imbalance, bondage is called liberation, or kaivalya, by the Samkhya school.

24. Answer: D

In Jainism the three jewels (also referred to as ratnatraya) are understood as samyagdarshana ("right faith"), samyagjnana ("right knowledge"), and samyakcharitra ("right conduct"). One of the three cannot exist exclusive of the others, and all are required for spiritual liberation. The Triratna is symbolized frequently in art as a trident.

25. Answer: B

Gandhar school and Mathura school belongs to shakakushan dynasty and Amaravati school belongs to sathvana period.

26. Answer: D

Gandharschool of architecture contain fusion of Indian–Greek-Roman style.

27. Answer: D

The Bhakti Movement was a reform movement in Hinduism. It occupies a significant position in bringing about harmony and normal relationships between the Hindus and Muslims. The development of the Bhakti cult first began in South India in the 7th-8th century in order to bridge the gulf between the Shaivas and the Vaishnavas. It stood for intense personal devotion and complete self-surrender to God. It believed in the unity of godhead, brotherhood of man and equality of all religions. The roots of the Bhakti Movement can be traced to the Upanishads, the Puranas and the Bhagvad Gita. Shankaracharya is reputed to have been the first and principal exponent of this reform movement

The Sufi Movement had twofold aims: To make their own spiritual progress and to serve the mankind. Sufism, which started as a reform movement, laid emphasis on free-thinking, liberal ideas and toleration. They believed in the equality of all human beings and brotherhood of man. Their concept of universal brotherhood and the humanitarian ideas of the Sufi saints attracted the Indian mind. A movement similar to Sufism, called the Bhakti cult, was already afoot in India on the eve of the Muslim conquest of the country. The liberal-minded Sufis were, therefore,

welcomed in India. The Sufi movement proved very helpful in bridging the gap between the followers of the two religions and in bringing the Hindus and the Muslims together.

Sufi and bhakti movement put breaks on orthodoxy. Both wanted to development of regional language. Both encouraged social reform measure.

28. Answer: C

Explanation: Idol, image, statue, painting, sacrifice and religious rituals inside the Samaj building was not allowed.

29. Answer: A

The Bengali middle class supported the peasants whole-heartedly. Harish Chandra Mukhopadhyay thoroughly described the plight of the poor peasants in his newspaper The Hindu Patriot. The ryots received moral support from the Indian press in Calcutta as well as the aid of some Calcutta-trained lawyers. The indigo rebellion has been portrayed in drama, poetry and popular history in Bengal, thereby drawing the attention of the intelligentsia. Thus it entered the political awareness and had a far reaching consequence in the later movements of Bengal.

30. Answer: C

31. Answer: C

August offer (August 8, 1940) turned down the congress demand for Setting up the provisional national government. But it made alternate proposals envisaging that, an immediate increase in the number of Indians in the viceroy's executive council, setting up a war advisory council, setting up a representative constitution making body after the war

32. Answer: A

33. Answer: D

How did the use of violence in 1942 square with the Congress policy of non-violence. For one, there were many who refused to use or sanction violent means and confined themselves to the traditional weaponry of the Congress. But many of those, including many staunch Gandhians, who used 'violent means' in 1942 felt that the peculiar circumstances warranted their use. Many maintained that the cutting of telegraph wires and the blowing up of bridges was all right as long as human life was not taken. Others frankly admitted that they could not square the violence they used, or connived at with their belief in nonviolence, but that they did it all the same. Gandhiji refused to condemn the violence of the people because he saw it as a reaction to the much bigger violence of the state. While it is true that Muslim mass participation in the Quit India movement was not high, yet it is also true that even Muslim League supporters not act as informers. Also, there was a total absence of any communal clashes, a sure sign that though the movement may not have aroused much support from among the majority of the Muslim masses, it did not arouse their hostility either.

34. Answer: D

Article 32 of the Constitution gives the Supreme Court the right to issue writs of Habeas Corpus, Mandamus, Prohibition, Quo Warranto and Certiorari to enforce **only the Fundamental Rights** given in the Part III of the Constitution.

Article 226 of the Constitution gives the High Courts of the States the same power as above but these Courts can issue the writs for Fundamental and Other Rights, i.e., Socio-Economic rights. In this context, the Writ jurisdiction of High Court is wider than that of the Supreme Court.

The appellate jurisdiction of the Supreme Court can be invoked by a certificate granted by the High Court concerned under Article 132(1), 133(1) or 134 of the Constitution in respect of any judgement, decree or final order of a High Court in both civil and criminal cases, involving substantial questions of law as to the interpretation of the Indian Constitution.

The Supreme Court has special advisory jurisdiction in matters which may specifically be referred to it by the President of India under Article 143 of the Indian Constitution.

35. Answer: C

The Finance Minister is to be a member of either house of the Parliament. The Prime Minister has to resign if he loses majority in the lower house. Constitution does not fix the size of Council

of Ministers. It is for Prime Minister to determine its size according to time exigencies of the time requirement of the situation.

36 Answers: C

By the said [Amendment Act](#) 2003, the requirement of "domicile" in the State Concerned for getting elected to the Council of States is deleted which according to the petitioner violates the principle of Federalism, a basic structure of the Constitution. A contesting candidate to the RajyaSabha should ordinarily be a resident of the state where he is contesting is not compulsory.

37. Answer: D

Elected members of the lower house of the state legislature because elected member of lower house of the state legislature are eligible for vote in RajyaSabha and as per citizen of India they can also vote in LokSabha election

38. Answer: A

39. Answer: D

Governor can be removed from office till the completion of his term and Governor can continue is office beyond a period of five year until his successor join in the office.

40. Answer: C

The main federal features of the Indian Constitution are as follows:

- Written Constitution
- Supremacy of the Constitution
- Rigid Constitution
- Division of Powers
- Independent Judiciary
- Bicameral Legislature
- Dual Government Polity

41. Answer: D

42. Answer: A

The basic structure doctrine is an Indian judicial principle that the Constitution of India has certain basic features that cannot be altered or destroyed through amendments by the Parliament. Key among these "basic features", are the Fundamental Rights granted to individuals by the Constitution.

The doctrine thus forms the basis of a limited power of the Supreme Court to review and strike down Constitutional amendments enacted by the Parliament which conflict with or seek to alter this "basic structure" of the Constitution.

The basic structure doctrine applies only to Constitutional amendments. The basic features of the Constitution have not been explicitly defined by the Judiciary, and the claim of any particular feature of the Constitution to be a "basic" feature is determined by the Court in each case that comes before it.

The basic structure doctrine does not apply to ordinary Acts of Parliament which must itself be in conformity with the Constitution.

43. Answer: B

Four Directive Principles were added by 42nd amendment as follows:

To secure opportunities for healthy development of children (Article 39)

To promote equal justice and to provide free legal aid to the poor (Article 39 A)

To take steps to secure the participation of workers in the management of industries (Article 43 A)

To protect and improve the environment and to safeguard forests and wild life (Article 48 A).

44. Answer: B

The first schedule of the Indian Constitution pertains to Names of the States and their territorial jurisdiction and Names of the Union Territories and their extent. Forms of Oaths and Affirmation comes under the Third Schedule.

45. Answer: A

In the KesavanandaBharati case (1973), the Supreme Court held that Preamble is a part of the Constitution and it can be amended, subject to the condition that no amendment is done to the 'basic features'.

The Preamble has been amended only once so far, in 1976, by the 42nd Constitutional Amendment Act, which has added three new words—Socialist, Secular and Integrity—to the Preamble.

The Preamble is neither a source of power to legislature nor a prohibition upon the powers of legislature. It is non-justiciable, that is, its provisions are not enforceable in courts of law.

46. Answer: A

As per RBI regulations, a part (i.e. maximum of 30%) of the aggregate amount of loans by NBFC- MFIs may be extended for other purposes such as housing repairs, education, medical and other emergencies.

However aggregate amount of loans given for income generation should constitute at least 70 per cent of the total loans of the NBFC-MFI.

Microcredit is part of microfinance, which provides a wider range of financial services especially savings accounts, to the poor. Modern microcredit is generally considered to have originated with the Grameen Bank founded in Bangladesh in 1983.

47. Answer: D

48. Answer: B

The Statutory Liquidity Ratio (SLR) is the ratio (fixed by the RBI) of the total deposits of a bank which is to be maintained by the bank with itself in non-cash or cash form prescribed by the Government.

The Cash Reserve Ratio (CRR) is the ratio (fixed by the RBI) of the total deposits of a bank in India which is kept with the RBI in cash form.

49. Answer: B

Interest payments on international investments is credited or debited into Current Account.

50. Answer: B

They cannot take part in lending activities and they have to follow corporate governance guidelines.

51. Answer: C

Inflation is a sustained rise in overall price levels. Repo rate is the rate at which the RBI lends money to commercial banks. In the event of inflation, central banks increase repo rate as this acts as a disincentive for banks to borrow from the central bank. This ultimately reduces the money supply in the economy and thus helps in arresting inflation.

Introduction of increased taxes is one of the fiscal policies to control inflation. But sometimes this may result in cost-push inflation, as increased indirect tax rate increases cost of production.

Maintenance of buffer stock of major agricultural products could be used in supply management which maintains price stability. Decrease in crude oil production increases crude oil price, which in turn increases cost of production.

52. Answer: C

New CPI indices are available for five major groups namely Food, beverages and tobacco; Fuel and light; Housing; Clothing, bedding and footwear, and Miscellaneous.

House rent index is compiled only for CPI (Urban). This index is not compiled for rural sector because of two reasons: first there is negligible number of rented dwellings in the rural areas;

and the Consumer Expenditure Survey also does not provide estimate of imputed rent for owner occupied houses for this sector.

53. Answer: B

Broad money  $M3 = M1 + \text{Time deposits of the public held by commercial banks}$ .  $M1 = CU + DD$   
Where CU is the Currency held by the public and DD is net Demand deposits held by commercial banks. The word 'net' implies that only deposits of the public held by the banks are to be included in money supply. *The interbank deposits*, which a commercial holds in other commercial banks are *not regarded as money supply*.

54. Answer: C

Priority sector refers to those sectors of the economy which may not get timely and adequate credit in the absence of this special dispensation. Typically, these are small value loans to farmers for agriculture and allied activities, micro and small enterprises, poor people for housing, students for education and other low income groups and weaker sections.

Priority Sector includes the following categories:

- (i) Agriculture
- (ii) Micro and Small Enterprises
- (iii) Education
- (iv) Housing
- (v) Export Credit
- (vi) Others

The Reserve Bank of India (RBI) has revamped priority sector lending (PSL) norms. Now, loans to sectors such as social infrastructure, renewable energy and medium enterprises will also be treated as PSL.

55. Answer: A

This Bank would be responsible for regulating and refinancing all Micro-Finance Institutions (MFI) which are in the business of lending to micro/small business entities engaged in manufacturing, trading and services activities.

In lending, MUDRA proposes to give priority to enterprises set up by the under-privileged sections of the society particularly those from the scheduled caste / tribe (SC/ST) groups, first generation entrepreneurs and existing small businesses.

MUDRA Bank will refinance Micro-Finance Institutions through a Pradhan Mantri MudraYojana.

Vajiram & Ravi