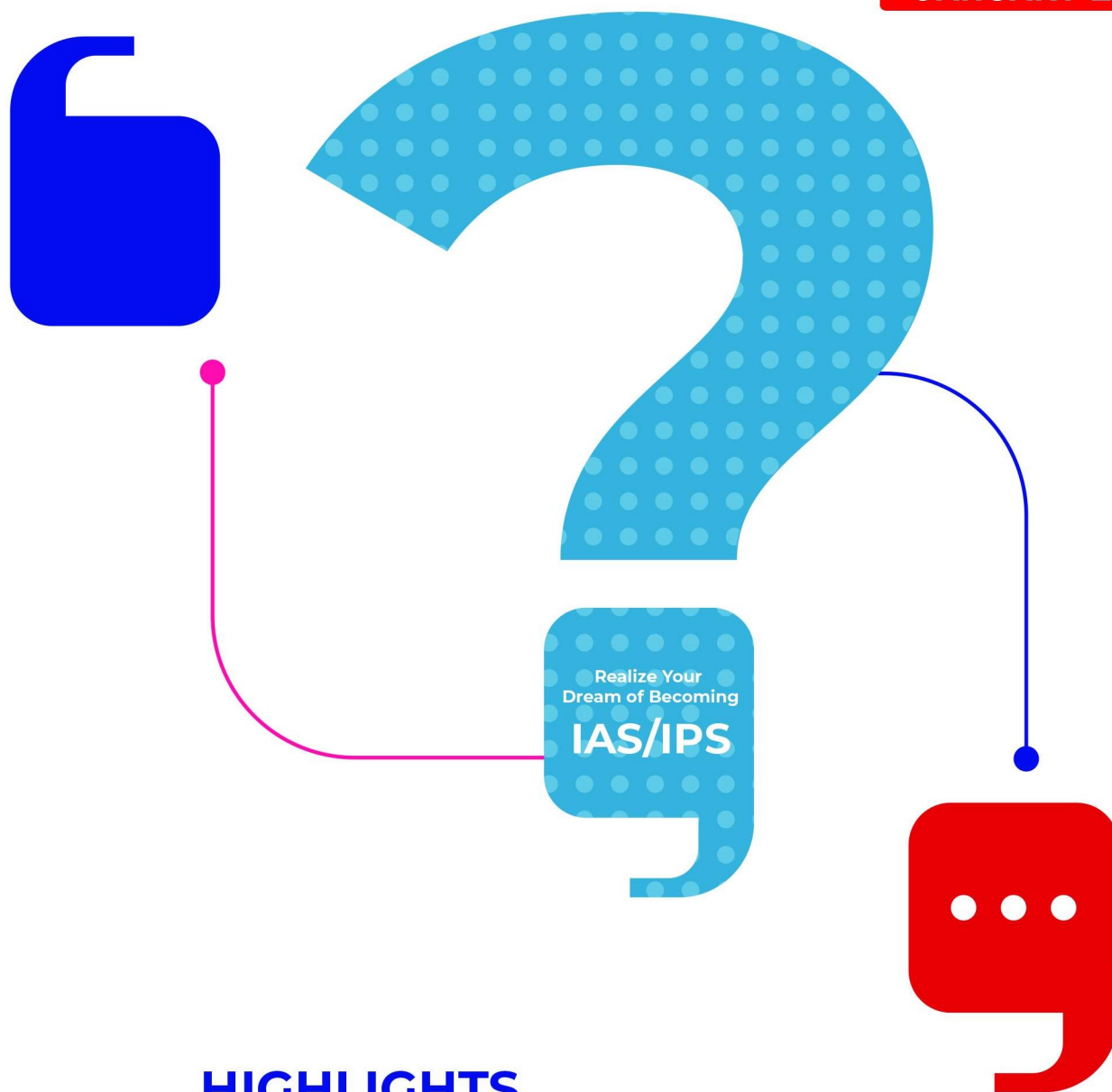


JANUARY-2021



HIGHLIGHTS

UPSC Prelims GS-1 Practice Paper-2

UPSC Mains GS Practice Paper-33

DO NOT OPEN THIS BOOKLET UNTIL YOU ARE ASKED TO DO SO**T.B.C.: P-PFC-L-BJAB****1****TEST BOOKLET SERIES****Serial No. 145221****TEST BOOKLET****D****GENERAL STUDIES (PAPER – I)****Time Allowed: Two Hours****Maximum Marks: 200****INSTRUCTIONS**

1. IMMEDIATELY AFTER THE COMMENCEMENT OF THE EXAMINATION, YOU SHOULD CHECK THAT THIS TEST BOOKLET DOES NOT HAVE ANY UNPRINTED OR TORN OR MISSING PAGES OR ITEMS, ETC. IF SO, GET IT REPLACED BY A COMPLETE TEST BOOKLET.
2. ENCODE CLEARLY THE TEST BOOKLET SERIES A, B, C OR D AS THE CASE MAY BE IN THE APPROPRIATE PLACE IN THE ANSWER SHEET.
3. You have to enter your Roll Number on the Test Booklet in the Box provided alongside. **DO NOT** write anything else on the Test Booklet.
4. This test Booklet contains **100** items (questions). Each item is printed both in Hindi and English. Each item comprises four responses (answers). You will select the response which you want to mark on the Answer Sheet. In case you feel that there is more than one correct response, mark the response which you consider the best. In any case, choose **ONLY ONE** response for each item.
5. You have to mark all your responses **ONLY** on the separate Answer Sheet provided. See directions in the Answer Sheet.
6. All items carry equal marks.
7. Before you proceed to mark in the Answer Sheet the response to various items in the Test Booklet, you have to fill in some particulars in the Answer Sheet as per instructions sent to you with your Admission Certificate.
8. After you have completed filling in all your responses on the Answer Sheet and the examination has concluded, you should handover to the Invigilator only the Answer Sheet. You are permitted to take away with you the Test Booklet.
9. **USE ONLY BALL BLACK OR BLUE PEN TO MARK IN THE ANSWER SHEET.**
10. Sheets for rough work are appended in the Test Booklet at the end.
11. **Penalty for wrong answers:**
THERE WILL BE PENALTY FOR WRONG ANSWERS MARKED BY A CANDIDATE IN THE OBJECTIVE TYPE QUESTION PAPERS.
 - (i) There are four alternatives for the answer to every question. For each question for which a wrong answer has been given by the candidate, **one-third (0.333)** of the marks assigned to that question will be deducted as penalty.
 - (ii) If a candidate gives more than one answer, it will be treated as a **wrong answer** even if one of the given answers happens to be correct and there will be same penalty as above to that question.
 - (iii) If a question is left blank, i.e., no answer is given by the candidate, there will be **no penalty** for that question.

DO NOT OPEN THIS BOOKLET UNTIL YOU ARE ASKED TO DO SO



1. Which of the following country's incumbent Head of Government have been awarded Legion of Merit recently?

1. India 2. Australia 3. Japan

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) All of the above

2. Consider the following statements:

1. Climate Ambition Summit 2020 was convened recently by the World Wildlife Fund for Nature (WWF).
2. The next Conference of the Parties (COP 26) to the UN Framework Convention on Climate Change (UNFCCC) is to be hosted by India in 2021.

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

3. Consider the following statements regarding the Global Burden of Disease Study (GBD) 2019

1. About 17 percent of the total deaths in India in 2019 have been attributed to air pollution.
2. Lost output from premature deaths and morbidity attributable to air pollution accounted for economic losses of more than one percent of GDP.

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

4. Which of the following initiatives have been launched by India as a founding member?

1. International Solar Alliance
2. Coalition for Disaster Resilient Infrastructure
3. Leadership Group for Industry Transition

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) All of the above

5. Consider the following statements:

1. India is the largest fish producing country in the world.
2. Fisheries sector of India contributes more than five percent to the country's Gross Value Added (GVA).

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

6. Which of the following is/are correctly matched?

1. Yeondeunghoe - Lantern lighting festival in the Republic of Korea
2. Toguz Korgool - Strategy and intelligence game in Central Asia

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

7. Consider the following statements regarding the Permanent Court of Arbitration (PCA):

1. India is a party to the 1899 convention establishing the Permanent Court of Arbitration.
2. The 'Enrica Lexie' Incident (Italy v. India) case is being arbitrated at the PCA.

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

8. Consider the following statements regarding the European Union:

1. The European Commission consists of the heads of state or government of the EU member states.
2. The eurozone consists of all countries the EU and others who use it as national currency.

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

9. Which of the following institution has released the Global Status Report for Building and Construction, 2020?

- a) United Nations Environment Programme
- b) United Nations Human Settlements Programme
- c) International Energy Agency
- d) World Economic Forum

10. Which of the following country(s) withdrew from European Union after a popular vote?

- 1. Greenland 2. United Kingdom
- 3. Turkey

Select the correct answer using the code given below:

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

11. Atanu Chakraborty task force recently in news is concerned with recommendation on

- a) Non-personal data
- b) National Infrastructure Pipeline (NIP)
- c) Assess the progress of fiscal stimulus to boost the economy amid pandemic.
- d) None of the above

12. Consider the following statements with regard to Basavanna, a 12th century social reformer

- 1. He was a philosopher, statesman, Kannada poet during the reign of the Kalachuri-dynasty king Bijjala I in Karnataka, India.
- 2. He established Kalyan Rajya in Karnataka, same in meaning to today's welfare state.
- 3. Basavanna developed and inspired a new devotional movement named Virashaivas, or ardent, heroic worshippers of Shiva.

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

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

13. Consider the following statements:

- 1. The reservations under Article 16(4) are called vertical reservations.
- 2. Special reservations under Articles 16(1) or 15(3) are called "horizontal reservations".

Which of the above statements is/are correct?

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

14. Consider the following statements:

- 1. The right to privacy does not include the right to make intimate decisions relating to one's personal life including the right to marry.
- 2. Article 21 guarantees an adult's right to love and marry.

Which of the above statements is/are correct?

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

15. Consider the following statements with respect to the Avian influenza:

- 1. It is a highly contagious viral disease caused by Influenza Type A viruses which generally affects poultry birds such as chickens and turkeys.
- 2. H5N1, H5N2, H5N8 are some of the most popular strains of the virus.
- 3. It can not easily spread to humans and it does not usually spread from person to person.

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

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

16. Grand Renaissance dam, the Africa's largest dam, is located in

- a) Ethiopia b) Sudan
- c) Kenya d) South Sudan

17. Consider the following statements about Kolleru lake.

- 1. Kolleru is accorded sanctuary status under the Wildlife Protection Act of 1972.
- 2. It is a designated Ramsar site.
- 3. It is identified as an "Important Bird Area" of India by the Bombay Natural History Society.

Which of the above statements is/are correct?

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

18. Consider the following statements:

- 1. The power to convene a session of Parliament rests with the President.
- 2. Article 85 specifies that the central legislature had to be summoned to meet at least once a year.

Which of the above statements is/are correct?

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

19. Consider the following Mars missions scheduled to be launched in 2021

Mission	By
1. Al Amal	A. Qatar
2. Chandrayaan-3	B. India
3. Perseverance	C. United Kingdom
4. Tianwen-1	D. China

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

- a) 4 only b) 1 and 3 only
c) 2 and 4 only d) All of the above

20. Consider the following statements with respect to the Antarctica - Earth's only continent without a native human population

1. The Antarctic treaty was the first arms control agreement established during the Cold War.
2. The Indian Antarctic programme has now been credited to have built three permanent research base stations in Antarctica named - Dakshin Gangotri, Maitri, and Bharati.

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

21. Consider the following statements with respect to Pravasi Bharatiya Divas

1. It is celebrated once in every two years.
2. "Contributing to Aatmanirbhar Bharat" is the theme for the event, 2021.

Which of the statement(s) given above is/are incorrect?

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

22. Consider the following statements with respect to Pravasi Bharatiya Samman Award

1. It is the highest honour conferred on a Non-Resident Indian, Person of Indian Origin (PIO), and institutions run by NRIs or PIOs.
2. The award will be conferred by the Prime Minister of India.

Which of the statement(s) given above is/are correct?

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

23. Tapas and SWiFT, refers to which of the following?

- a) Anti-tank guided missile
b) Unmanned Aerial Vehicle
c) Ballistic Missile Submarine
d) Underground missile silo

24. Sitamma Sagar, sometimes seen in the news recently, is a multi-purpose project built across which of the following rivers?

- a) R. Hoogly
b) R. Cauvery
c) R. Ghaggar
d) R. Godavari

25. Consider the following statements with respect to Vanadium

1. It is a high-value metal used in the manufacture of partially hydrogenated oils or Trans fats.
2. India is a significant consumer of vanadium, but is not a primary producer of the strategic metal.
3. It is recovered as a by-product from the slag collected from the processing of vanadiferous magnetite ores.

Which of the statements given above are correct?

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

26. Which of the following statements are incorrect with respect to Gross Domestic Product Estimates

1. India has registered an average annual GDP growth rate of 6.8 per cent since the start of economic liberalisation in 1992-93.
2. India's real GDP, i.e. GDP without the influence of inflation in 2020-21 will be higher than the 2018-19 level.

Select the incorrect answer using the codes given below:

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

27. Consider the following statements with respect to Culling of Infected Birds

1. In India, culling is done in a radius of one kilometre from the site of infection, which is called the 'infected zone'.
2. World Organization for Animal Health (OIE) recommends quick twisting of the neck (cervical dislocation) to cull small number of infected birds.

Which of the statement(s) given above is/are correct?

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

28. Which of the following organization prepares and releases Food Price Index?

- a. World Trade Organization (WTO)
- b. Food and Agriculture Organization (UN-FAO)
- c. Food Corporation of India (FCI)
- d. Ministry of Consumer Affairs

29. Consider the following statements with respect to K- Shape Curve in Economy

1. It occurs after a recession, following uniform recovery across sectors, industries, or groups of people.
2. K shape recovery in India reflects that upper-income households have benefitted from higher savings.

Which of the statement(s) given above is/are incorrect?

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

30. Which of the following statements are incorrect with respect to India's Silk production

1. North India is leading silk producing area of the country and is also known for its famous silk weaving enclaves like Bhagalpur, Varanasi (Banaras).
2. Eri silk from Assam is known as "Ahimsa Silk", as it is processed without killing the silkworm.

Select the incorrect answer using the codes given below:

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

31. Consider the following statements with respect to National Sports Development Fund (NSDF)

1. It was established in 1998 under the Charitable Endowments Act 1890.
2. The Fund is managed by a Council chaired by the Union Minister for Youth Affairs and Sports.
3. TOP (Target Olympic Podium) Scheme has been formulated within the overall ambit of NSDF.

Which of the statements given above are correct?

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

32. With respect to NCAVES Project, consider the following statements:

1. The project is being funded by the European Union (EU).
2. It has been jointly implemented by the United Nations Statistics Division (UNSD), the United Nations Environment Programme (UNEP) and the Secretariat of the Convention of Biological Diversity (CBD).
3. India is one of the five countries taking part in this project.

Which of the statements given above are correct?

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

33. System of Environmental-Economic Accounting (SEEA) Framework is an accepted international standard for environmental-economic accounting. It provides information on which of the following areas?

1. Land Accounts
2. Energy Accounts
3. Material Flow Accounts
4. Air Emissions Accounts
5. Agriculture, Forests, and Fisheries Accounts

Select the correct answer using the codes given below:

- a) All except 5
b) All except 1 and 2
c) All except 3 and 4
d) All of the above

34. With respect to Trade Policy Review Mechanism (TPRM), consider the following statements:

1. It is an important mechanism under the World Trade Organization's (WTOs) monitoring function.
2. The review facilitates smooth functioning of the multilateral trading system by enhancing transparency of Members' trade policies.
3. All WTO Members are subject to review under the Trade Policy Review Mechanism (TPRM).

Which of the statement(s) given above is/are correct?

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

35. Consider the following statements with respect to National Internet Exchange of India (NIXI)

1. It is a not for profit Organization under section 8 of the Companies Act 2013.
2. It is not an Internet Service Provider (ISP) and will not provide Internet connections or Transit services.

Which of the statement(s) given above is/are incorrect?

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

36. Which of the following statements is/are correct with respect to Ozone Depleting Substances (OSD).

1. Chlorofluorocarbons is a type of OSD used in production of plastic foams and tubeless tyres
2. The Montreal Protocol Prohibits the production and consumption of nearly 100 chemicals referred as OSD.
3. India has completely phased out of HCFC-141 b, which is used in production of rigid polyurethane (PU) foams.

Select the correct answer using the codes given below:

- a. 1 & 2 only b. 2 & 3 only
c. 1&3 only d. All of the above

37. Consider the following statements with respect to Digital Services Tax

1. It is a Value Added Tax on digital services where the consumer bears the entire tax burden on the value of the final product.
2. It is adopted by India, Italy and Turkey which discriminate against U.S. companies.

Which of the statement(s) given above is/are incorrect?

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

38. Committee headed by G Kishan Reddy is formed for which of the following tasks?

- a) Formulating Data Protection Bill.
- b) Protecting the language, culture and land of Ladakh.
- c) Drafting Science, Technology and Innovation Policy.
- d) Recommendations on Inner Line Permit System

39. Consider the following statements with respect to Blackbucks or Indian Antelope

1. Wildlife Protection Act, 1972 give the blackbucks as much protection as the Tiger in Schedule I of the act.
2. Kalbelia community of Rajasthan is known worldwide for their conservation efforts to blackbuck.

Which of the statement(s) given above is/are incorrect?

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

40. Which of the following statements are correct with respect to Judicial Review in India

1. There is no separate provision for judicial review in the Indian Constitution but it is an integral part of it.
2. Article 13 provides for Judicial Review of pre-constitutional as well as post- constitutional laws.

Select the correct answer using the codes given below:

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

41. Consider the following statements regarding a Zero-Coupon Bond?

1. It does not offer any profit at maturity.
2. It trades at a higher price than the face value.

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

42. Which of the following statement(s) is/are correct regarding the floating rate bonds?

1. The interest rate offered is fixed while the maturity period is not defined.
2. The rate of interest of a floating rate bond is generally linked to a benchmark rate and is reset at a regular interval.

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

43. Consider the following statements regarding the recently launched Digital Payment index (DPI) for India:

1. It has been launched by the National Payments Corporation of India (NPCI).
2. DPI will capture the extent of digitisation of payments across the country.
3. DPI has been constructed with March 2018 as the base period.

Which of the statements given above is/are correct?

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

44. Consider the following statements regarding the International Financial Services Centres Authority (IFSCA):

1. It is a unified authority for the development and regulation of financial services and financial institutions in the International Financial Services Centre (IFSC) in India.
2. IFSCA is an Associate Member of the International Organization of Securities Commissions (IOSCO).

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

45. Consider the following statements regarding the GST revenue this financial year [2020- 21] so far:

1. The GST revenues during December 2020 have been the highest since the introduction of GST.
2. The December 2020 is fifth month in a row in the current financial year to have GST revenue more than 1 Lakh crore.

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

46. Consider the following statements:

1. The white blood cells consist primarily of macrophages, B-lymphocytes and T-lymphocytes.
2. Active immunity can only be acquired by surviving the infection itself.

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

47. What is Pneumosil, which has been in news recently?

- a) A new strain of SARS-CoV-2
b) Pneumococcal vaccine indigenously developed in India
c) The Pneumococcal disease caused by SARS-CoV-2
d) A pentavalent vaccine to be administered under the Universal Vaccination Programme

48. Consider the following statements regarding the Oxford/AstraZeneca Vaccine for COVID-19:

1. It is an RNA type vaccine.
2. It has to be stored under extremely cold temperature (-70C) to maintain its effectiveness.

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

49. Which of the following COVID-19 vaccine has become the first one to receive emergency validation from World Health Organisation?

- a) Oxford University/AstraZeneca developed COVISHIELD
- b) Pfizer/BioNTech vaccine for COVID-19
- c) Moderna COVID-19 vaccine
- d) Sputnik V

50. Consider the following statements regarding the “Thirty Metre Telescope”:

- 1. It is being built at Hanle, Ladakh.
- 2. The TMT project is an international partnership among various nations including China and India.

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

51. Which of the following statements correctly defines the term ‘Brachytherapy’?

- a) Internal radiation therapy to treat cancers and tumors
- b) Supplementary oxygen for people suffering from lung disease
- c) A branch of traditional Indian medicinal system
- d) Prophylaxis for vaccine side-effects

52. Consider the following statements:

- 1. Random number generators have application in field of cryptography.
- 2. Council of Scientific and Industrial Research is the only institution in India to have developed a Quantum Random Number Generator (QRNG).

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

53. Consider the following statements:

- 1. Proxima Centauri is the nearest star to the Sun.
- 2. BLC1 is a radio signal being estimated to have emitted from Proxima Centauri.

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

54. Consider the following statements regarding the Pneumonia:

- 1. It causes infection in the lungs.
- 2. Bacteria, viruses, or fungi may cause pneumonia.

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

55. What does the Nelson Mandela Rules 2015 relate to?

56. Which of the following country is not a member of the Arab League?

- a) Iran
- b) Saudi Arabia
- c) Syria
- d) Yemen

57. Consider the following statements regarding the Asia-Pacific Economic Cooperation (APEC):

- 1. It is sub-group under the G20 to leverage the growing interdependence of the Asia-Pacific.
- 2. India and China both are member economies to the APEC.

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

58. Consider the following statements:

- 1. United Kingdom was among the founding members of European Coal and Steel Community.
- 2. Despite Brexit being enforced, Northern Ireland will continue to be part of the European Union.

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

59. The General Data Protection Regulation (GDPR) belongs to which of the following region?

- a) European Union
- b) Shanghai Cooperation Organisation
- c) Mercosur
- d) NAFTA

60. The 'CANZUK' acronym includes which of the following country(s)?

1. United States of America
2. United Kingdom
3. Canada

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) All of the above

61. Consider the following statements with respect to Private Final Consumption Expenditure (PFCE)

1. It is expenditure incurred by the resident households on final consumption of goods and services, made only within the economic territory.
2. It constitutes over 56% of the total GDP.

Which of the statement(s) given above is/are correct?

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

62. Which of the following statements are incorrect with respect to TROPEX Exercise

1. It is a trilateral exercise between India, Singapore and Thailand.
2. National Security Guard, the Border Security Force, oil handling agencies and airports will participate in the exercise along with defence forces.

Select the correct answer using the codes given below:

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

63. Which of the following Indian State celebrates Cherry Blossom Mao Festival?

- a) Manipur
- b) Mizoram
- c) Meghalaya
- d) Nagaland

64. Consider the following statements with respect to V Shaped Recovery in Economics

1. It is characterized by a quick and sustained recovery in measures of economic performance after a sharp economic decline.

2. It suggests that economic spending and employment will rapidly decline, but quickly pick back up.

Which of the statement(s) given above is/are correct?

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

65. Which of the following statements are incorrect with respect to Magnetotail

1. It is elongated extension of the Earth's magnetosphere on the side facing away from the Sun.
2. Earth's magnetotail extends well beyond the orbit of the moon and, once a month, the moon orbits through it.

Select the correct answer using the codes given below:

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

66. Consider the following statements with respect to Khadi Prakritik Paint

1. The paint uses heavy metals like lead, mercury, arsenic and cadmium to make it eco-friendly and non-toxic.
2. It is a first of its kind paint developed by Khadi and Village Industries Commission (KVIC).
3. The paint is based on cow dung and has been certified by the Bureau of Indian Standards.

Which of the statement(s) given above is/are correct?

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

67. Consider the following statements with respect to Management Effectiveness Evaluation (MEE) Survey

1. India has a network of 903 Protected Areas covering about 5% of its total geographic area of the country.
2. Dachigam Wildlife Sanctuary in Jammu & Kashmir is the best and Mathikettan Shola National Park in Tamil Nadu is the worst performers among the surveyed protected areas.

Which of the statement(s) given above is/are correct?

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

68. Consider the following statements with respect to North East Venture Fund (NEVF)

1. It is the first and the only dedicated Venture Fund for the North Eastern Region (NER).
2. The Venture Fund Scheme was launched by the Ministry of Finance in cooperation with North Eastern Development Finance Corporation Ltd (NEDFi).

Which of the statement(s) given above is/are correct?

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

69. Consider the following statements with respect to SEA VIGIL 21

1. It is a biennial pan-India coastal defence exercise coordinated by the Indian Coast Guard (ICG).
2. The exercise will involve all the 13 coastal States and Union Territories of India.

Which of the statement(s) given above is/are correct?

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

70. Consider the following statements with respect to Antarctic Ozone Hole

1. It is a large area of high pressure and cold air surrounding the Earth's North and South poles.
2. During winters, the polar vortex at the North Pole expands, sending cold air southward.

Which of the statement(s) given above is/are correct?

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

71. What is 'Sahayak-NG', seen in news recently?

- a) An indigenously developed short-range surface to air missile.
- b) First indigenously designed and developed air dropped container.
- c) An air-to-surface anti-radiation missile.
- d) A multiple rocket launcher developed by DRDO.

72. With reference to the Enforcement Directorate (ED), consider the following statements:

1. It is the central national agency responsible for disseminating information relating to

suspect financial transactions to enforcement agencies.

2. It is part of the Department of Revenue, Ministry of Finance.

Which of the above statements is/are correct?

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

73. Consider the following statements:

1. India has signed but did not ratify the Outer Space Treaty of 1967.
2. The Outer Space Treaty prohibits only weapons of mass destruction in outer space.

Which of the above statements is/are incorrect?

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

74. With reference to Social Impact Bonds, consider the following statements:

1. This type of bond lays down outcomebased targets to be achieved at the start of the contract.
2. Unlike normal bonds, social impact bonds are not affected by interest rate risk or market risk.
3. So far, social impact bonds have only been issued by the public sector.

Which of the above statements are correct?

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

75. With reference to Eco-Sensitive Zones (ESZs), consider the following statements:

1. ESZs are areas around the Protected Areas (PA) and wildlife corridors declared as ecologically fragile under Wildlife Protection Act, 1972.
2. ESZs are declared through notification by a state government.
3. Activities like commercial mining are prohibited in ESZs.

Which of the above statements is/are incorrect?

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

76. With reference to National Common Mobility Card (NCMC), consider the following statements:

1. NCMC cards are bank-issued cards on debit/credit/pre-paid card product platform.
2. The card can be used to withdraw money from ATMs and to make retail payments.
3. It is an open loop card which can be used for all local travel in the country.

Which of the above statements are correct?

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

77. Consider the following statements regarding National Medicinal Plants Board (NMPB):

1. It is the nodal agency for management of plant genetic resources of all agrihorticultural crops.
2. It focuses on both in-situ and ex-situ conservation of local medicinal plants.

Which of the above statements is/are correct?

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

78. Consider the following statements:

1. Alcohol can reduce our body temperature and thus, increase the risk of hypothermia during cold exposure.
2. Alcohol increases the volume of blood brought to the skin's surface thus making us feel warmer.

Which of the above statements is/are correct?

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

79. Which of the following countries is/are not the members of Gulf Cooperation Council (GCC)?

1. Qatar 2. Iraq 3. Yemen 4. Kuwait

Select the correct answer using the code given below:

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

80. Consider the following statements regarding "Adopt a Heritage: Apni Dharohar, Apni Pehchaan" Project:

1. It aims to develop basic tourism infrastructure in and around heritage sites only.

2. It envisages handing over of development of facilities and amenities to private and public sector companies known as "Monument Mitras".

3. Public/Private sector companies are selected through a financial bidding process

Which of the above statements is/are incorrect?

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

81. Consider the following statements about office of the Director General of Foreign Trade (DGFT) in India

1. DGFT organisation is an attached office of the Ministry of External Affairs and is headed by Director General of Foreign Trade.
2. Right from its inception the objective of the organisation is to increase exports and hence assigned the role of facilitator.

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

82. Consider the following statements with respect to the International Labour Organisation (ILO)

1. ILO is the only tripartite United Nations agency that brings together governments, employers and workers of 187 member States, to set labour standards, develop policies and devise programmes promoting decent work for all women and men.
2. After the demise of the League of Nations, the ILO became the first specialized agency associated with the UN.

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

83. Consider the following statements:

1. The main objective of the Skill India programme is to provide adequate training in market-relevant skills to over 40 crore youth by 2022.

2. The scheme is coordinated by the Ministry of Human Resource Development.

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

84. Consider the following statements:

1. The National Policy on Biofuels-2018 20% blending of ethanol in petrol and 5% blending of bio-diesel in diesel.
2. It allows production of ethanol from damaged food grains like wheat, broken rice etc. which are unfit for human consumption.

Which of the above statements is/are correct?

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

85. Consider the following statements.

1. Fungi cannot be used in the bioremediation of radioactively polluted sites.
2. Fungi can act as bio-fertilizers by actively competing for nutrients and space with pathogenic microorganisms.

Which of the above statements is/are correct?

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

86. Consider the following statements regarding Antarctic Treaty.

1. Antarctic Treaty regulate international relations with respect to Antarctica.
2. For the purposes of the treaty system, Antarctica is defined as all of the land and ice shelves south of 60°S latitude.
3. The treaty establishes freedom of scientific investigation, and bans military activity on the continent.
4. Antarctica is earth's only continent without a native human population.

Which of the above statements is/are correct?

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

87. Consider the following statements regarding Aurora or Northern lights often seen.

1. Auroras are the glowing lights at high latitude.
2. Auroras can be normally observed in stratosphere.
3. Change in the atmospheric temperature cause Auroras.

Which of the above statement is/are correct?

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

88. Petroleum Conservation Research Association (PCRA), a registered society set up in 1978, under the aegis of

- a) Ministry of Petroleum and Natural Gas
b) Ministry of Science and Technology
c) Ministry of Environment, Forest and Climate Change
d) Is an autonomous body

89. The term 'REPLACE' is in the news. It is related to

- a) Space technology
b) Replacing of diesel engine cars with electric cars
c) Eliminating industrially-produced trans fat
d) None of the above

90. Which of the following constitutional provisions are linked with the power of judicial review?

1. Article 13(2) 2. Article 135
3. Article 32 4. Article 226

Select the correct code:

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

91. Consider the following statements regarding The Indian Forest Act, 1927:

1. State Government may constitute any wasteland as a reserve forest despite the private ownership of land.
2. The control of all rivers and their banks as regards the floating of timber is vested in the State Government.

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

92. Consider the following statements.

1. Wular Lake (Jammu & Kashmir) is the largest freshwater lake in India, formed by tectonic activity.
2. Lonar in Maharashtra is a volcanic lake.
3. Lake Chilka is an erosional lake.

Which of the above statements is/are correct?

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

93. Consider the following statements :

1. ASTRA is a Beyond Visual Range (BVR) class of Surface-to-Air Missile system.
2. ASTRA is designed to engage and destroy highly manoeuvring supersonic aircraft.

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

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

94. Consider the following statements:

1. The Pinaka is an Artillery Missile System capable of striking into enemy territory up to a range of 75 kilometres.
2. The Navigation system of the Pinaka missile is also aided by the Indian Regional Navigation Satellite System (IRNSS).

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

95. The term HFHSD – IN 512 recently seen in news is related to :

- a) Fuel
- b) Surface Ship
- c) Aircraft
- d) Submarine

96. PRARAMBH, recently in news, is a/an

- a) Startup India International Summit to mark the fifth anniversary of the Startup India initiative

b) Name given to the first phase of nationwide COVID-19 vaccination drive.

c) Practice of organic farming to be introduced at all India level

d) None of the above

97. The Adaptation Gap Report, 2020, recently in news, is published by

a) Greenwatch

b) International Union for Conservation of Nature (IUCN)

c) United Nations Environment Programme (UNEP)

d) None of the above

98. Consider the following statements:

1. The New Start Treaty is an agreement signed by the Obama administration with Russia that caps Russian and U.S. nuclear arsenal.

2. The Intermediate-Range Nuclear Forces Treaty was a Treaty Between the United States of America and Russia on the Elimination of Their Intermediate-Range and Shorter-Range Missiles.

Which of the above statements is/are incorrect?

a) 1 Only

b) 2 Only

c) Both 1 and 2

d) Neither 1 nor 2

99. Consider the following statements about Special Marriages Act, 1954:

1. There are no religious formalities that need to be carried out under the Act.

2. The fundamental requirement under this Act for a valid marriage is the consent of families of both parties to the marriage.

Which of the above statements is/are correct?

a) 1 Only

b) 2 Only

c) Both 1 and 2

d) Neither 1 nor 2

100. Consider the following statements:

1. Treasury bills are issued at a discount and redeemed at the face value at maturity.

2. Cash Management Bills (CMBs) are generally issued for maturities less than 91 days.

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

a) 1 Only

b) 2 Only

c) Both 1 and 2.

d) Neither 1 nor 2

PRELIMS PRACTICE PAPER KEY

1. **Answer: (a)**

Explanation: The President of the United States of America conferred the highest decoration, The Legion of Merit, Degree Chief Commander, to India's Prime Minister Narendra Modi on 21 December 2020. The Legion of Merit, in the highest degree of the Chief Commander, is a prestigious award conferred by the President of the United States, typically upon Heads of State or Heads of Government of other countries. The Legion of Merit, Degree Chief Commander, was also awarded to the Prime Minister of Australia Scott Morrison, and former (not incumbent) Prime Minister of Japan, Shinzo Abe. The US had last awarded Legion of Merit to late Amir of Kuwait Sheikh Sabah al-Ahmed AlJaber Al-Sabah on September 18, 2020 as the senior most Royal in the Middle-East for bridging divides in the restive region.

2. **Answer: (d)**

Explanation: Both statements are incorrect. The United Nations, United Kingdom and France co-hosted the Climate Ambition Summit 2020, in partnership with Chile and Italy. It marked the fifth anniversary of the Paris Agreement, and provided a platform for government and non-governmental leaders to demonstrate their commitment to the Paris Agreement and the multi-lateral process. The summit is positioned as a "sprint to Glasgow," where the 26th session of the Conference of the Parties (COP 26) to the UN Framework Convention on Climate Change (UNFCCC) is scheduled to take place from 1-12 November 2021.

3. **Answer: (c)**

Explanation: Both statements are correct.

4. **Answer: (d)**

5. **Answer: (d)**

Explanation: Fisheries and aquaculture continue to be an important source of food, nutrition, income and livelihood to millions of people. Export earnings from the Fisheries sector has been Rs.46,662.85 crores during 2019-20. The sector provides livelihood support to about 280 lakh people at the primary level and almost twice the number along the value chain and the annual average growth rate in the Fisheries sector has been 7% over the last few years. Fish being an

affordable and rich source of animal protein, is one of the healthiest options to mitigate hunger and nutrient deficiency. Statement 1 is incorrect. India is the second largest fish producing country in the world accounting for 7.56% of global production after China. Statement 2 is incorrect. Fisheries sector is contributing about 1.24% to the country's Gross Value Added (GVA) and over 7.28% to the agricultural GVA.

6. **Answer: (c)**

Explanation: Option 1 is correctly matched. YeonDeungHoe, a Korean traditional cultural festival in which participants light up lanterns to celebrate Buddha's Birthday, has become a UNESCO intangible cultural heritage of Humanity. Option 2 is correctly matched. 'Traditional intelligence and strategy game: Togyzqumalaq, Toguz Korgool, Mangala/Gocurme' submitted with Kazakhstan and Kyrgyzstan, has been inscribed on the UNESCO Representative List of Intangible Cultural Heritage of Humanity, during the 15th Session of Intergovernmental Committee for the Safeguarding of the Intangible Cultural Heritage which is being held online between 14-19 December 2020.

7. **Answer: (c)**

Explanation: Statement 1 is correct. The PCA was established by the Convention for the Pacific Settlement of International Disputes, concluded at The Hague in 1899 during the first Hague Peace Conference. India is party to this convention. Statement 2 is correct. The 'Enrica Lexie' Incident (Italy v. India) case proceedings were instituted under the United Nations Convention on the Law of the Sea ("UNCLOS") at PCA. The dispute arises from an incident that occurred on 15 February 2012 approximately 20.5 nautical miles off the coast of India involving the "Enrica Lexie", an oil tanker flying the Italian flag, and India's subsequent exercise of criminal jurisdiction over the incident and over two Italian marines from the Italian Navy

8. **Answer: (d)**

Explanation: Statement 1 is incorrect. The European Union is a unified trade and monetary body of 27 member countries. It eliminates border controls between members. The open border allows the free flow of goods and people. The

European Council is a collegiate body that defines the overall political directions and priorities of the European Union. It comprises the heads of state or government of the EU member states, along with the President of the European Council and the President of the European Commission. Statement 2 is incorrect. The eurozone consists of all countries that use the euro. All EU members pledge to convert to the euro, but only 19 have so far.

9. **Answer: (a)**

10. **Answer: (a)**

Explanation: Greenland, an autonomous country within the Kingdom of Denmark is one of the EU countries' overseas countries and territories (OCT) associated to the European Union. Greenland joined the then European Community in 1973 as a county along with Denmark, but after gaining autonomy in 1979 with the introduction of home rule within the Kingdom of Denmark, Greenland voted to leave in 1982 and left in 1985, to become an OCT.

11. **Answer : (b)**

Explanation : About NIP:

- * NIP is based on the recommendation of the Atanu Chakraborty Task Force, with projected infrastructure investment of Rs 111 Lakh Crore during FY 2020-25.
- * Background: Union Finance Minister in her Budget speech 2019-20 announced that Rs. 100 lakh crore would be invested on infrastructure over the next five years.
- * NIP is a first-of-its-kind, whole-of-government exercise to provide world-class infrastructure across the country, and improve the quality of life for all citizens.
- * It aims to improve project preparation, attract investments (both domestic and foreign) into infrastructure, and will be crucial for the target of becoming a \$5 trillion economy by FY 2025.
- * Aggregate the information provided by various stakeholders across infrastructure sub-sectors identified in the Harmonised Master List of Infrastructure.
- * A bottom-up approach was adopted wherein all projects (Greenfield or Brownfield, Under Implementation or under conceptualisation) costing greater than Rs 100 crore per project were sought to be captured.

* The NIP project database is on India Investment Grid (IIG), providing visibility to the NIP and helping in its financing with prospective investors; domestic and foreign, being able to access updated project level information.

* Each line Ministry/State would further add new projects and update their respective project details at predefined time intervals so that updated data is available to prospective investors.

12. **Answer : (d)**

Explanation :- About Lord Basaveshwara:

- * Early life: Born in 1131 AD, Lord Basaveshwara was himself a Brahmin.
- * Also known as Basavanna, he was a 12th-century philosopher, statesman, Kannada poet and a social reformer during the reign of the Kalachuri-dynasty king Bijjala I in Karnataka, India.
- * As a leader: Basavanna developed and inspired a new devotional movement named Virashaivas, or ardent, heroic worshippers of Shiva.
- * This movement shared its roots in the ongoing Tamil Bhakti movement, particularly the Shiva Nayanars traditions, over the 7th- to 11th-century.
- * Sharana movement: Preaching egalitarianism, the movement was presided over by Basavanna.
- * The movement, which was too radical for its time, attracted people from all castes, and like most strands of the Bhakti movement.
- * The movement produced a corpus of literature, the vachanas, that unveiled the spiritual universe of the Virashaiva saints.
- * Social reformer: From socio-economic prejudices and untouchability to gender discrimination, he waged war against all ills.
- * Basava championed devotional worship that rejected temple worship and rituals led by Brahmins.
- * Basavanna spread social awareness through his poetry, popularly known as Vachanaas.
- * Anubhava Mantapa: Often referred to as the "first Parliament of the world" established by him in Basavakalyan where philosophers and social reformers held debates.
- * Laid the foundations of democracy: Which prioritises and promotes the rights of a person,

standing on the last rungs of the society.

- * Kalyana Rajya: He established Kalyan Rajya in Karnataka, same in meaning to today's welfare state.

13. Answer : (c)

Explanation : Vertical and horizontal reservations

- * There are two types of reservations, which are referred to as 'vertical reservations' and 'horizontal reservations'.
- * The reservation in favour of scheduled castes, scheduled tribes and other backward classes [under Article 16(4)] may be called vertical reservation.
- * It applies separately for each of the groups specified under the law.
- * Horizontal reservation refers to the equal opportunity provided to other categories of beneficiaries such as women, veterans, the transgender community, and individuals with disabilities, cutting through the vertical categories.
- * Special reservations in favour of physically handicapped, women, etc., under Articles 16(1) or 15(3) are "horizontal reservations".
- * Horizontal reservations cut across the vertical reservations - what is called interlocking reservations.

Combined application of the two categories of quotas

- * The horizontal quota is applied separately to each vertical category, and not across the board.
- * For example, if women have 50% horizontal quota, then half of the selected candidates will necessarily have to be women in each vertical quota category.
- * It means half of all selected SC candidates will have to be women, half of the unreserved or general category will have to be women, and so on.

14. Answer : (b)

Explanation :-

- * The right to privacy includes the right to make intimate decisions relating to one's personal life including the right to marry, the right to have relationships, the right to have children and the right to one's faith, without interference from the state.
- * The freedom to marry a person of one's choice is a fundamental right is enshrined under the

Constitution under Article 21 which guarantees the right to life and liberty.

15. Answer : (d)

Explanation :- About avian influenza:

- * Viral disease: It is a highly contagious viral disease caused by Influenza Type A viruses which generally affects poultry birds such as chickens and turkeys.
- * Strains of the virus (H5N1, H5N2, H5N8 etc): There are many strains of the virus, some of them are mild and may merely cause a low egg production among chickens, while others are severe and lethal.
- * Spread: Aquatic birds such as ducks and geese are the natural reservoir of Influenza A viruses. Many birds carry the flu without developing sickness, and shed it in their droppings.
- * From water birds, many of whom migrate and travel long distances, the viruses are thus further spread to poultry and terrestrial birds.
- * Sometimes, the virus jumps over to mammals such as pigs, horses, cats and dogs.
- * Causes of spread: Movement of infected poultry and migratory birds, and an illegal bird trade are believed to be the causes of the spread.
- * Can it infect humans easily? - No:
- * Generally, people coming in close contact with infected alive or dead birds have contracted the H5N1 bird flu.
- * As per the WHO, it does not usually spread from person to person.
- * The virus is sensitive to heat, and dies in cooking temperatures. There is also no evidence that the disease can be spread to people through properly prepared and cooked poultry food.

16. Answer : (a)

Explanation :-

- * The construction of the Grand Renaissance dam: It was initiated in 2011 on the Blue Nile tributary of the river that runs across one part of Ethiopia.
- * Spearheaded by Ethiopia, the 145-meter-tall Grand Renaissance Dam hydropower project, when completed, will be Africa's largest.
- * Significance for Ethiopia:
- * It's goal is to secure electricity for its population and to sustain and develop its growing manufacturing industry. It is anticipated that this dam will generate approximately 6,000

megawatts of electricity when it is completed.

- * In addition to its domestic requirements, Ethiopia may be hoping to sell surplus electricity to neighbouring nations like Kenya, Sudan, Eritrea and South Sudan, to generate some revenue.

17. Answer : (d)

Explanation :- Kolleru lake

- * It is one of the largest freshwater lakes in India, (it was designated a sanctuary in October 1999) is situated between the Krishna and West Godavari districts of the state.
- * Kolleru is one of the most important wetlands of India.
- * The lake supports 200 species of birds, including the critically endangered Spoon-billed Sandpiper.
- * At present, 6,000 Spot-billed Pelicans, 5,000 Painted Storks and 5,000 Asian Openbills are estimated to be found in Kolleru. The lake also supports 63 species of fish.
- * Important Wetland:
- * Kolleru was accorded sanctuary status under the Wildlife Protection Act of 1972.
- * It was designated a Ramsar site in 2002.
- * It was also identified as an "Important Bird Area" of India by the Bombay Natural History Society.

18. Answer : (b)

Explanation : The power to convene a session of Parliament:

- * Rests with the government: The decision is taken by the Cabinet Committee on Parliamentary Affairs, which currently comprises nine ministers, including those for Defence, Home, Finance, and Law.
- * The decision of the Committee is formalised: By the President, in whose name MPs are summoned to meet for a session.
- * India does not have a fixed parliamentary calendar:

19. Answer : (c)

Explanation :-

Mars missions: In February, Mars will receive a number of terrestrial robotic guests from several countries.

- * United Arab Emirates' Al Amal (Hope): It is the Arab world's first interplanetary mission. It will

spend two years monitoring the Martian weather and disappearing atmosphere.

- * China's Tianwen-1: It consists of an orbiter and a surface rover. If it succeeds, China will become the third country to land anything on Mars.
- * The mission has several objectives including mapping the mineral composition of the surface and searching for sub-surface water deposits.
- * Nasa's Perseverance rover: It will land at Jezero Crater and search for any signs of ancient life which may have been preserved in the clay deposits there. It will also store samples of Martian surface to return samples of Mars to Earth.
- * Chandrayaan-3: In March 2021, the Indian Space Research Organisation (ISRO) is planning to launch its third lunar mission - Chandrayaan-3. It will consist of only a lander and rover, as the previous mission's orbiter is still functioning and providing data.
- * Chandrayaan-1: It launched in 2008 and was one of the first major missions in the Indian space programme. Unfortunately, contact with the satellite was lost less than a year later.
- * Chandrayaan-2: There was a similar mishap with its successor, which consisted of an orbiter, a lander (Vikram) and a lunar rover (Pragyan).
- * Significance: Chandrayaan-3 rover will touch down in the lunar south pole's Aitken basin. It's of particular interest as it is thought to host numerous deposits of subsurface water ice.

20. Answer : (c)

Explanation : Antarctic Treaty System (ATS):

- * The Antarctic Treaty and related agreements, collectively known as the Antarctic Treaty System (ATS).
- * It regulates international relations with respect to Antarctica, Earth's only continent without a native human population.
- * The treaty sets aside Antarctica as a scientific preserve, establishes freedom of scientific investigation, and bans military activity on the continent.
- * The treaty was the first arms control agreement established during the Cold War.
- * The treaty was a diplomatic expression of the operational and scientific cooperation that had been achieved "on the ice".
- * For the purposes of the treaty system, Antarctica is defined as all of the land and ice shelves south

of 60°S latitude.

- * The treaty entered into force in 1961 and currently has 54 parties. Since September 2004, the Antarctic Treaty Secretariat headquarters has been located in Buenos Aires, Argentina.
- * The original signatories were the 12 countries active in Antarctica during the International Geophysical Year (IGY) of 1957-58 - Argentina, Australia, Belgium, Chile, France, Japan, New Zealand, Norway, South Africa, the Soviet Union, the United Kingdom, and the United States.

Indian Antarctic expeditions:

- * Began in 1981: The Indian Antarctic programme has now been credited to have built three permanent research base stations in Antarctica named - Dakshin Gangotri, Maitri, and Bharati.
- * Managed by: India has two operational research stations - Maitri and Bharati - in Antarctica managed by the National Centre for Polar and Ocean Research (NCPOR), Goa.
- * Objective: To focus on the climate process and its linkages with climate change, crustal evolution, environmental processes and conservation, the ecosystem of terrestrial and near shore regions, observational research, and polar technology.

21. Answer : (d)

Explanation:

- * The Prime Minister has recently inaugurated the Pravasi Bhartiya Diwas Convention.

Pravasi Bharatiya Divas

- * It is celebrated once in every two years to strengthen the engagement of the overseas Indian community with the Government of India and reconnect them with their roots.
- * The 16th PBD Convention is being held virtually on 9 January, 2021 in New Delhi.
- * The theme of 16th PBD Convention 2021 is "Contributing to Aatmanirbhar Bharat".

22. Answer : (c)

Explanation:

- * Suriname President Chandrikapersad Santokhi, Curacao Prime Minister Eugene Rhuggenaath and New Zealand minister Priyanka Radhakrishnan were among 30 NRIs, and Indian-origin people and organisations who were conferred the Pravasi Bharatiya Samman Award recently.

Pravasi Bharatiya Samman Award

- * The award is the highest honour conferred by the President of India as part of the Pravasi Bharatiya Divas (PBD) Conventions.

- * The award will be conferred on a Non-Resident Indian (NRI), Person of Indian Origin (PIO), and organisation or institution established and run by NRIs or PIOs.

23. Answer : (b)

Explanation:

- * The handing over ceremony of Retractable Landing Gear Systems for Tapas and SWiFT UAVs and 18 types of filters for P-75 Submarine took place recently at DRDO laboratory, Combat Vehicles Research and Development Establishment (CVRDE), Chennai.
- * Tactical Airborne Platform for Aerial Surveillance-Beyond Horizon-201 (TAPAS BH-201)
- * It is a long endurance unmanned aerial vehicle (UAV) which used to be previously referred as Rustom-II.
- * It is being developed by India on the lines of the American Predator drones.

Stealth Wing Flying Testbed (SWiFT)

- * SWiFT is a precursor to India's stealthy Unmanned Combat Aerial Vehicle (UCAV) Ghatak.
- * It is a scaled-down version of Ghatak UCAV.
- * The main intent of SWiFT UAV is to demonstrate and prove the stealth technology and high-speed landing technology in autonomous mode.

24. Answer: (d)

Explanation:

- * The State government of Telangana has fixed September 2022 as deadline to complete construction of the proposed Sitammasagar multi-purpose project.

Sitammasagar multi-purpose project

- * The Rs. 2,700-crore Sitammasagar multi-purpose project envisages construction of a barrage across River Godavari with a storage capacity of 36.57 tmcft and a hydel power unit of 320 MW capacity.
- * It aims to optimally harness the surplus waters of the Godavari for both irrigation and hydel power generation purposes.

25. Answer : (c)

Explanation:

- * Arunachal Pradesh is likely to become India's prime producer of vanadium.
- * Exploration being carried out by the Geological Survey of India (GSI) has placed the eastern Himalayan State on the vanadium map of the country.

Vanadium

- * It is a high-value metal used in strengthening steel and titanium.
- * India is a significant consumer of vanadium, but is not a primary producer of the strategic metal.
- * It is recovered as a by-product from the slag collected from the processing of vanadiferous magnetite ores (iron ore).
- * India consumed 4% of about 84,000 tonnes of vanadium produced across the globe in 2017.
- * China, which produces 57% of the world's vanadium, consumed 44% of the metal.

26. Answer : (c)**Explanation:****Gross Domestic Product Estimates**

- * Gross domestic product (GDP) is the monetary value of all finished goods and services made within a country during a specific period.
- * India has registered an average annual GDP growth rate of 6.8 per cent since the start of economic liberalisation in 1992-93.
- * According to recent estimates real GDP will fall by 7.7 per cent.
- * A big reason for the contraction this year has been the disruption caused by Covid-induced lockdowns, as a result, the domestic economy had entered a technical recession.
- * India's real GDP that is, GDP without the influence of inflation in 2020-21 will be lower than the 2018-19 level.
- * In other words, from the start of the next financial year, India would first have to raise its GDP back to the level it was at in 2019-20.

27. Answer : (c)**Explanation: Culling of Infected Birds**

- * During culling operations, all domestic birds in an infected area, i.e., an area in which a case of bird flu has been detected, are slaughtered and their remains buried.
- * In India, culling is done in a radius of one kilo-

metre from the site of infection, which is called the 'infected zone'.

- * This means all domestic birds present in commercial farms, backyard farms or live bird markets in the infected zone are culled.
- * Normally, the World Organization for Animal Health OIE says, the cervical dislocation or neck-wrangling method may be used by first making the poultry unconscious.
- * The OIE manual says cervical dislocation is non-invasive killing method and can be performed manually on small birds, but it is difficult in larger birds and results in operator fatigue.

28. Answer : (b)**Explanation: Food Price Index**

- * It is a measure of the monthly change in international prices of a basket of food commodities.
- * It is prepared by United Nations Food and Agriculture Organisation (FAO).
- * It consists of the average of five commodity group price indices weighted by the average export shares of each of the groups over 2014-2016.
- * The five indices are
 1. Cereal Price Index,
 2. Vegetable Oil Price Index,
 3. Dairy Price Index,
 4. Meat Price Index,
 5. Sugar price index.

29. Answer : (a)**Explanation:****K- Shape Curve in Economy**

- * A K-shaped recovery occurs when, following a recession, different parts of the economy recover at different rates, times, or magnitudes.
- * It describes the path of different disaggregated economic variables, such as income across different segments of society or employment in different industries, relative to one another.
- * In India, households at the top of the pyramid are likely to have seen their incomes largely protected, and savings rates forced up during the lockdown.
- * Meanwhile, households at the bottom are likely to have witnessed permanent hits to jobs and incomes.
- * COVID has triggered an effective income transfer

from the poor to the rich, this will be demand-impeding because the poor have a higher marginal propensity to consume (i.e) they tend to spend (instead of saving) a much higher proportion of their income.

30. **Answer : (b)**

Explanation: India's Silk production

- * There are five major types of silk of commercial importance, obtained from different species of silkworms.
- * These are Mulberry, Oak Tasar & Tropical Tasar, Muga and Eri.
- * India has the unique distinction of producing all these commercial varieties of silk.
- * South India is the leading silk producing area of the country and is also known for its famous silk weaving enclaves like Kancheepuram, Dharmavaram, Arni, etc.
- * In India, about 97% of the raw mulberry silk is produced in the five Indian states of Karnataka, Andhra Pradesh, Tamil Nadu, West Bengal and Jammu and Kashmir.
- * Apart from this all four commercially exploited varieties of silk mulberry, Muga, Eri and Tasar are produced in the North East.
- * This region contributes about 21 per cent of the total silk production in the country.

31. **Answer : (d)**

Explanation: National Sports Development Fund (NSDF)

- * It was established in 1998 under the Charitable Endowments Act 1890.
- * It was notified by Government of India in November, 1998.
- * The purpose of creation of the fund is to impart momentum and flexibility to assisting the cause of sports.
- * Role of the Fund is supplementary to the overall policy and activities of the Department of Sports in achieving excellence in sports.
- * The Fund is managed by a Council constituted by the Central Government.
- * Union Minister in charge of Youth Affairs and Sports is the Chairperson of the Council.

TOP (Target Olympic Podium) Scheme

- * It has been formulated within the overall ambit of NSDF with the objective of identifying and supporting potential medal prospects for 2020

Olympic Games.

- * The selected athletes are provided financial assistance for their customized training at Institutes having world class facilities and other necessary support.

32. **Answer : (d)**

Explanation:

- * NCAVES India Forum 2021 is being organised by the Ministry of Statistics and Programme Implementation (MoSPI) recently.
- * Natural Capital Accounting and Valuation of the Ecosystem Services (NCAVES) Project
- * The main objective of the project is to mainstream natural capital accounting and the valuation of ecosystem services in data-driven decision and policy-making at the national, regional and local levels.
- * It was funded by the European Union (EU).
- * It has been jointly implemented by the United Nations Statistics Division (UNSD), the United Nations Environment Programme (UNEP) and the Secretariat of the Convention of Biological Diversity (CBD).
- * India is one of the five countries taking part in this project - the other countries being Brazil, China, South Africa and Mexico.
- * In India, the NCAVES project is being implemented by the Ministry of Statistics and Programme Implementation (MoSPI) in close collaboration with the Ministry of Environment, Forest and Climate Change (MoEF&CC) and the National Remote Sensing Centre (NRSC).

33. **Answer : (d)**

Explanation:

- * India's participation in the NCAVES project helped Ministry of Statistics and Programme Implementation (MoSPI) to commence the compilation of the Environment Accounts as per the UN-SEEA framework and release environmental accounts in its publication "EnviStats India" on an annual basis since 2018.
- * Several of these accounts are closely related to the social and economic attributes, making them a useful tool for the Policy.

System of Environmental Economic Accounting (SEEA)

- * It is the accepted international standard for environmental-economic accounting, providing a framework for organizing and presenting statis-

tics on the environment and its relationship with the economy.

- * It brings together economic and environmental information in an internationally agreed set of standard concepts, definitions, classifications, accounting rules and tables to produce internationally comparable statistics.
- * The SEEA is produced and released under the auspices of the United Nations, the European Commission, the Food and Agriculture Organization of the United Nations, the Organisation for Economic Co-operation and Development, International Monetary Fund and the World Bank Group.
- * The SEEA provides frameworks for producing accounts in several thematic areas, including:
 1. Land Accounts
 2. Water Accounts
 3. Ecosystems Accounts
 4. Material Flow Accounts
 5. Air Emissions Accounts
 6. Energy Environmental Activity Accounts
 7. Agriculture, Forests, and Fisheries Accounts

34. **Answer : (d)**

Explanation:

- * The second and final Session of India's seventh Trade Policy Review (TPR) concluded recently at the World Trade Organization in Geneva.

Trade Policy Review (TPR)

- * It is an important mechanism under the WTO's monitoring function.
- * It was an early result of the Uruguay Round.
- * The objectives of the TPRM, as expressed in Annex 3 of the Marrakesh Agreement, include facilitating the smooth functioning of the multi-lateral trading system by enhancing the transparency of Members' trade policies.
- * All WTO Members are subject to review under the TPRM.
- * The Annex mandates that the four Members with the largest shares of world trade (currently the European Union, the United States, Japan and China) be reviewed each three years, the next 16 be reviewed each five years, and others be reviewed each seven years.
- * A longer period may be fixed for least-developed country Members.
- * Reviews are conducted by the Trade Policy

Review Body (TPRB) on the basis of a policy statement by the Member under review and a report prepared by economists in the Secretariat's Trade Policy Review Division.

35. **Answer : (d)**

Explanation:

- * The National Internet Exchange of India (NIXI) has recently announced that it will offer a free IDN (Internationalized Domain Name) in any of their preferred 22 official Indian language along with every IN domain booked by the registrant.
- * Applicant will also get a free email in local language.

National Internet Exchange of India (NIXI)

- * It is a not for profit Organization under section 8 of the Companies Act 2013, and was registered on 19th June, 2003.
- * NIXI was set up for peering of ISPs among themselves for the purpose of routing the domestic traffic within the country, instead of taking it all the way to US/Abroad, thereby resulting in better quality of service (reduced latency) and reduced bandwidth charges for ISPs by saving on International Bandwidth.
- * NIXI is managed and operated on a Neutral basis, in line with the best practices for such initiatives globally.
- * Any ISP can join NIXI.
- * NIXI is not an ISP and will not provide Internet connections or Transit services.

Functions

- * It is working since 2003 for spreading the internet technology to the citizens of India through the following activities: -
 1. Internet Exchanges through which the internet data is exchanged amongst ISPs and between ISPs and CDNs.
 2. IN Registry, managing and operation of IN country code domain and IDN domain for India.
 3. IRINN, managing and operating Internet protocol (IPv4/IPv6).

36. **Answer : (c)**

Explanation: Ozone Depleting Substances (ODS)

- * ODS compound contributes to stratospheric ozone depletion, they include
 1. Chlorofluorocarbons (CFCs) - used in production of plastic foams and tubeless tyres, and as pressurizing agents in aerosol cans.

2. Hydro chlorofluorocarbons (HCFCs) and Halon - Used in fire extinguishers
3. Hydro bromo fluorocarbons,
4. Chloro bromo methane,
5. Methyl chloroform - used in degreasing, as a solvent and spot cleaner, and in making other chemicals.
6. Methyl bromide - Used for fumigation of soil, structures and goods to be imported or exported.
7. Carbon Tetrachloride

* Production and import of these chemicals are controlled by the Montreal Protocol on Substances that Deplete the Ozone Layer (the Montreal Protocol).

37. **Answer: (a)**

Explanation: Digital Services Tax

- * It is a levy on the overall revenues earned by the supplier of specific digital services.
- * It is different from Netflix tax, which is essentially a "value-added tax" on digital services where the consumer bears the entire tax burden on the value of the final product.
- * GAFA tax named after Google, Apple, Facebook, and Amazon is a French proposed digital tax that is to be levied on large technology and internet companies.
- * Recently India has expanded the scope of the Equalization Levy, or digital tax, to the sale of goods and services in the country by overseas e-commerce firms.
- * The transactions were to be taxed at 2 per cent if businesses earned more than Rs 2 crore.
- * The Equalization Levy was introduced for the first time in 2016 as 6% tax on revenues earned by non-residents from online advertising and related services.

38. **Answer : (b)**

Explanation: Committee headed by G Kishan Reddy

- * Recently, the Union Cabinet has decided to form a committee to protect language, culture & land of Ladakh.
- * The committee is aimed at protecting the language, culture and land of Ladakh and ensuring citizen's participation in the Union Territory's development.
- * The Committee will be headed by the Minister of State for Home G Kishan Reddy.

* The Committee will include elected representatives from Ladakh, Ladakh Autonomous Hill Development Council, central government, and the Ladakh administration.

39. **Answer : (b)**

Explanation: Blackbucks or Indian Antelope

- * It is found widely in grassy plains and slightly forest areas of found Central- Western India (MP, Rajasthan, Gujarat, Punjab, Haryana, Maharashtra and Odisha) and Southern India (Karnataka, Andhra Pradesh, and Tamil Nadu).
- * IUCN altered the status of blackbucks from "Vulnerable to Near Threatened".
- * In India, hunting of blackbuck is prohibited under Schedule I of the Wildlife Protection Act of 1972
- * The strong cultural connect with the species dates back to the Harappan era.
- * In mythology, the blackbuck is variously described as the vehicle (vahana) of Vayu (the wind god) and Chandrama (the Moon god).
- * Bishnoi community of Rajasthan is known worldwide for their conservation efforts to blackbuck and Chinkara.
- * Kalbelia is a dance from Rajasthan, performed by the tribe of the same name.

40. **Answer : (c)**

Explanation: Judicial Review in India

- * Judicial review is the power of the judiciary to examine the constitutionality of legislative enactments and executive orders of both the Central and State governments.
- * Few constitutional provisions that may be related with judicial review are
 1. Article 13 declares that all laws that are inconsistent with or in derogation of the Fundamental Rights shall be null and void.
 2. Article 32 guarantees the right to move the Supreme Court for the enforcement of the Fundamental Rights and empowers the Supreme Court to issue directions or orders or writs for that purpose.
 3. Article 226 empowers the High Courts to issue directions or orders or writs for the enforcement of the Fundamental Rights and for any other purpose.
 4. Article 227 vests in the High Courts the power of superintendence over all courts and tribunals within their respective territorial jurisdictions (except military courts or tribunals).

41. **Answer: (d)**

Explanation: Both statements are incorrect. A zero-coupon bond is a debt security that does not pay interest but instead trades at a deep discount, rendering a profit at maturity, when the bond is redeemed for its full face value. The difference between the purchase price of a zero-coupon bond and the par value, indicates the investor's return.

42. **Answer: (b)**

Explanation: Statement 1 is incorrect. Unlike traditional bonds that pay a fixed rate of interest, floating-rate bonds have a variable rate of interest. The maturity period is not variable. Statement 2 is correct. The rate of interest of a floating rate bond is linked to a benchmark rate and is reset at a regular interval. Interest rate risk is largely mitigated as these bonds will pay higher return when prevailing rates are high. Central banks issue floating rate bonds from time to time. # The Government of India recently announced the Sale (Re-issue) of 'GoI Floating Rate Bonds, 2033' for a notified amount of Rs2,000 crore (nominal) through price based auction.

43. **Answer: (b)**

Explanation: Statement 1 is incorrect. The Reserve Bank of India has constructed a composite Digital Payments Index (DPI) comprising of 5 broad parameters: (i) Payment Enablers (weight 25%), (ii) Payment Infrastructure - Demand-side factors (10%), (iii) Payment Infrastructure - Supply-side factors (15%), (iv) Payment Performance (45%) and (v) Consumer Centricity (5%). Statement 2 is correct. The RBI-DPI aims to measure the deepening and penetration of digital payments in the country over different time periods. Statement 3 is correct. The RBI-DPI has been constructed with March 2018 as the base period, i.e. DPI score for March 2018 is set at 100. The DPI for March 2019 and March 2020 work out to 153.47 and 207.84 respectively, indicating appreciable growth. Going forward, RBIDPI shall be published on RBI's website on a semi-annual basis from March 2021 onwards with a lag of 4 months.

44. **Answer: (c)**

Explanation: The International Financial Services Centres Authority (IFSCA) has been established on April 27, 2020 under the International Financial Services Centres Authority Act, 2019.

Statement 1 is correct. The IFSCA is a unified authority for the development and regulation of financial products, financial services and financial institutions in the International Financial Services Centre (IFSC) in India. At present, the GIFT IFSC is the maiden international financial services centre in India. Statement 2 is correct. The International Financial Services Centres Authority (IFSCA) has become an Associate Member of the International Organization of Securities Commissions (IOSCO). The IOSCO is the international organization that brings together the world's securities regulators, covering more than 95% of the world's securities markets, and is the global standard setter for the securities sector.

45. **Answer: (a)**

Explanation: Statement 1 is correct. The gross GST revenue collected in the month of December 2020 is Rs 1,15,174 crore. The GST revenues during December 2020 have been the highest since the introduction of GST and it is the first time that it has crossed ¹ 1.15 lakh crore.

46. **Answer: (a)**

Explanation: Statement 1 is correct. Blood contains red blood cells, for carrying oxygen to tissues and organs, and white or immune cells, for fighting infection. These white cells consist primarily of macrophages, B-lymphocytes and T-lymphocytes. Statement 2 is incorrect. Active immunity is stimulation of the immune system to produce antigen-specific humoral (antibody) and cellular immunity. One way to acquire active immunity is to survive infection with the disease-causing form of the organism. Another way to produce active immunity is by vaccination. Vaccines interact with the immune system and often produce an immune response similar to that produced by the natural infection, but they do not subject the recipient to the disease and its potential complications. Many vaccines also produce immunologic memory similar to that acquired by having the natural disease.

47. **Answer: (b)**

Explanation: Serum Institute of India (SII) unveiled India's first indigenously developed pneumococcal vaccine recently. Pneumosil, was developed through a collaboration spanning over a decade with the health organisation PATH and the Bill and Melinda Gates Foundation. It targets the pneumococcal bacterium, which causes pneu-

monia and other serious lifethreatening diseases such as meningitis and sepsis.

48. **Answer: (d)**

Explanation: Statement 1 is incorrect. The Oxford University/AstraZeneca vaccine is not a RNA type vaccine; it rather is made from a weakened version of a common cold virus (known as an adenovirus) from chimpanzees that carries genetic material from S protein of SARS-COV-2 to generate immune response in human body. Statement 2 is incorrect. The Oxford/AstraZeneca vaccine can be transported and stored at 2C-8C temperature for up to six months

49. **Answer: (b)**

Explanation: The World Health Organization (WHO) today listed the Comirnaty COVID-19 mRNA vaccine for emergency use, making the Pfizer/BioNTech vaccine the first to receive emergency validation from WHO since the outbreak began a year ago. The WHO's Emergency Use Listing (EUL) opens the door for countries to expedite their own regulatory approval processes to import and administer the vaccine. It also enables UNICEF and the Pan-American Health Organization to procure the vaccine for distribution to countries in need. The Comirnaty vaccine requires storage using an ultra-cold chain; it needs to be stored at - 60°C to -90°C degrees. This requirement makes the vaccine more challenging to deploy in settings where ultra-cold chain equipment may not be available or reliably accessible. For that reason, WHO is working to support countries in assessing their delivery plans and preparing for use where possible.

50. **Answer: (b)**

Explanation: Statement 1 is incorrect. The Thirty Metre Telescope is proposed to be sited on top of the Mauna Kea, Hawaii. Project is expected to be completed in the early 2030s.

51. **Answer: (a)**

Explanation: Brachytherapy is a type of radiation therapy used to treat cancer. It places radioactive sources inside the patient to kill cancer cells and shrink tumors. A small radioactive material called a source is put into your body, inside or close to the cancer. There are different types of radioactive sources (also called implants) such as seeds, wires or discs. They deliver radiotherapy to the area, destroying the cancer cells. Healthy tissue near to the cancer gets a lot less radiation.
Bhabha Atomic Research Centre (BARC)

Mumbai has developed Eye Cancer therapy in the form of the first indigenous Ruthenium 106 Plaque for treatment of Ocular Tumours.

52. **Answer: (a)**

Explanation: Statement 1 is correct. Random numbers have essential roles in many fields, such as Quantum Communication, cryptography (key generation, key wrapping, authentication etc.), scientific simulations, lotteries and fundamental physics experiments. Cryptography requires numbers that attackers can't guess. The generation of genuine randomness is generally considered impossible with classical means. Statement 2 is incorrect. DRDO Young Scientist Laboratory for Quantum Technologies (DYSL-QT) has developed a Quantum Random Number Generator (QRNG) which detects random quantum events and converts those into a stream of binary digits.

53. **Answer: (c)**

Explanation: Statement 1 is correct. Alpha Centauri star system, a triple system, is the nearest star system to our sun. Of the three stars in Alpha Centauri, Proxima is thought to be the one actually closest to our sun, at 4.22 light-years away. Statement 2 is correct. Breakthrough Listen project, started by the legendary physicist Stephen Hawking, regularly spot blasts of radio waves using two powerful telescopes- the Parkes Observatory in Australia or the Green Bank Observatory in the US. BLC1 (Breakthrough Listen Candidate 1) is a candidate SETI radio signal announced in December 2020, possibly coming from the star Proxima Centauri. and an apparent shift in its frequency is consistent with the Doppler effect caused by the movement of Proxima b, a planet of Proxima Centauri.

54. **Answer: (c)**

Explanation: Both statements are correct

55. **Answer: (a)**

Explanation: The Standard Minimum Rules for the Treatment of Prisoners were first adopted in 1957, and in 2015 were revised and adopted by the UN General Assembly as the Nelson Mandela Rules. They are supplemented by the UN Bangkok Rules on women prisoners. The Rules give guidance on all aspects of prison management, from admission and classification to the prohibition of torture and limits on solitary confinement. There is guidance on healthcare, recruitment and training of prison staff, as well as disciplinary sanctions.

56. **Answer: (a)**

57. **Answer: (d)**

Explanation: Statement 1 is incorrect. The Asia-Pacific Economic Cooperation (APEC) is a regional economic forum established in 1989 to leverage the growing interdependence of the Asia-Pacific. Statement 2 is incorrect. India is not a member to APEC. APEC's 21 member economies are Australia; Brunei Darussalam; Canada; Chile; People's Republic of China; Hong Kong, China; Indonesia; Japan; Republic of Korea; Malaysia; Mexico; New Zealand; Papua New Guinea; Peru; The Philippines; The Russian Federation; Singapore; Chinese Taipei; Thailand; United States of America; Viet Nam.

58. **Answer: (d)**

Explanation: Statement 1 is incorrect. In 1950, the concept of a European trade area was first established. The European Coal and Steel Community had six founding members: Belgium, France, Germany, Italy, Luxembourg, and the Netherlands. In 1957, the Treaty of Rome established a common market. It eliminated customs duties in 1968. It put in place standard policies, particularly in trade and agriculture. In 1973, the ECSC added Denmark, Ireland, and the United Kingdom. Statement 2 is incorrect. The UK voted to leave the European Union on June 23rd, 2016 by a majority of 51.9 to 48.1 per cent. Northern Ireland is part of the United Kingdom, therefore UK's departure from the EU means Northern Ireland is leaving the bloc too.

59. **Answer: (a)**

Explanation: The General Data Protection Regulation (GDPR) is a privacy and security law of the European Union. Though it was drafted and passed by the European Union (EU), it imposes obligations onto organizations anywhere, so long as they target or collect data related to people in the EU. Some of the key privacy and data protection requirements of the GDPR include: --Requiring the consent of subjects for data processing --Anonymizing collected data to protect privacy --Providing data breach notifications --Safely handling the transfer of data across borders

60. **Answer: (b)**

Explanation: CANZUK is an acronym for the theoretical cultural, political, and economic community comprising Canada, Australia, New Zealand and the United Kingdom as part of an international body similar in scope to the former

European Economic Community. The idea of a trade bloc between Britain, Canada, Australia and New Zealand gained traction after the 2016 Brexit vote

61. **Answer : (b)**

Explanation: Private Final Consumption Expenditure (PFCE)

- * The Private final consumption expenditure (PFCE) is defined as the expenditure incurred by the resident households and non-profit institutions serving households (NPISH) on final consumption of goods and services, whether made within or outside the economic territory.
- * It is a measure of national consumer spending, it constitutes over 56 per cent of the total GDP.
- * It includes the value of goods and services produced for own use on current account i.e., the value of gross output reduced by the sum of the value of their commodity and non-commodity sales.

62. **Answer : (c)**

Explanation:

TROPEX Exercise

- * The major Theatre-level exercise TROPEX (Theatre-level Readiness Operational Exercise)" is conducted by the Navy every two years.
- * It is an inter-service military exercise involving the participation of the Indian Army, Air Force, Navy and the Coast Guard.
- * It seeks to strengthen interoperability and joint operations in a complex environment.
- * TROPEX and Sea Vigil 2021 will be conducted together this year which would cover the entire spectrum of maritime security challenges.
- * In the Sea Vigil 2021 exercise apart from the Navy, the Indian Air Force, Coast Guard, National Security Guard, the Border Security Force, oil handling agencies and airports will also participate.
- * SITMEX is the trilateral naval exercise between India, Singapore and Thailand.

63. **Answer : (a)**

Explanation: Cherry Blossom Mao Festival

- * The Manipur government and Indian Council of Cultural Relations (ICCR), started organizing the festival since 2017.
- * The Mao area of Senapati district in Manipur is known for Cherry Blossom, a plant which is popularly known as Sakura in Japan.

- * The festival features the picturesque landscape of Mao town adorned with beautiful Cherry Blossom flowers.
- * It is the world's only autumn cherry blossom festival.
- * A cherry blossom is a flower of many trees of genus *Prunus* (*Prunus cerasoides*, called wild Himalayan cherry).

64. **Answer : (c)**

Explanation:

V Shaped Recovery in Economics

- * V-shaped recovery is a type of economic recession and recovery that resembles a "V" shape in charting.
- * V-shaped recovery represents the shape of a chart of economic measures economists create when examining recessions and recoveries.
- * V-shaped recovery involves a sharp rise back to a previous peak after a sharp decline in these metrics.

65. **Answer : (d)**

Explanation:

Magnetotail

- * The interaction of the magnetosphere and the solar wind compresses the Sun-facing side of the magnetosphere and drags out the night-time side of the magnetosphere into what is called a "magnetotail."
- * Auroral electrojets are generated by changes in the structure of the magnetotail.
- * The same space weather phenomena that power the beautiful aurora can cause interference with radio and communication signals and utility grids on Earth's surface, and damage to spacecraft in orbit.
- * NASA's Electrojet Zeeman Imaging Explorer (EZIE) will study electric currents in Earth's atmosphere linking aurora to the Earth's magnetosphere.

66. **Answer : (c)**

Explanation: Union Minister for MSME Sh. Nitin Gadkari will be launching an innovative new paint "Khadi Prakritik Paint".

Khadi Prakritik Paint

- * It is a first-of-its-kind product, with anti-fungal and anti-bacterial properties.
- * It is an eco-friendly and non-toxic paint.
- * It is based on cow dung as its main ingredient.

- * The paint is cost-effective and odorless.
- * It was developed by Khadi and Village Industries Commission (KVIC).
- * It has been certified by Bureau of Indian Standards (BIS).
- * The paint is free from heavy metals like lead, mercury, chromium, arsenic, cadmium and others.
- * It will be a boost to local manufacturing and will create sustainable local employment through technology transfer.

67. **Answer : (b)**

Explanation:

- * Minister for Environment, Forest and Climate Change Shri. Prakash Javadekar has recently released Management Effectiveness Evaluation (MEE) of 146 national parks and wildlife sanctuaries in the country.
- * He also announced that this year onwards, 10 best national parks, 5 coastal and marine parks and 5 zoos in the country will be ranked and awarded every year.
- * He also launched the Framework for Management Effectiveness Evaluation of Indian Zoos (MEE-ZOO) and of Marine Protected Areas.
- * Management Effectiveness Evaluation of Protected Areas has emerged as a key tool that is increasingly being used by governments and international bodies to understand strengths and weaknesses of the protected area management systems.

Highlights of the survey

- * India has a network of 903 Protected Areas covering about 5% of its total geographic area of the country.
- * According to the survey, Tirthan Wildlife Sanctuary and Great Himalayan National Park in Himachal Pradesh have performed the best among the surveyed protected areas.
- * The Turtle Wildlife Sanctuary in Uttar Pradesh was the worst performer in the survey.
- * India is home to 70% of the global tiger population, 70% of Asiatic lions and more than 60% of leopard population.
- * It is a certificate of India's thriving biodiversity as these big cats sit at the top of food chain and their growing numbers shows the well-being of the whole ecosystem.

68. **Answer : (a)**

Explanation: North East Venture Fund (NEVF) is gaining popularity among Start-Ups and young entrepreneurs.

North East Venture Fund (NEVF)

- * It is the first and the only dedicated Venture Fund for the North Eastern Region (NER).
- * The Venture Fund Scheme was launched by the Ministry of Development of North Eastern Region (DoNER) in co-operation with North Eastern Development Finance Corporation Ltd (NEDFi).
- * It was intended to promote growth of business ventures and skill development in the region.
- * It was setup with an initial corpus of Rs. 100 crores.
- * The fund targets to invest in Start-Ups and unique business opportunities to provide resources for new entrepreneurship.

69. **Answer : (b)**

Explanation: The second edition of the coastal defence exercise "Sea Vigil-21" will be conducted on 12-13 January 2021.

SEA VIGIL - 21

- * It is a biennial pan-Indian coastal defence exercise.
- * It will be undertaken along the entire 7516 km coastline and Exclusive Economic Zone of India.
- * It will involve all the 13 coastal States and Union Territories along with other maritime stakeholders, including the fishing and coastal communities.
- * The exercise is being coordinated by the Indian Navy.
- * The inaugural edition of the exercise was conducted in January 2019.
- * The Sea Vigil is a build up towards the major Theatre level exercise TROPEX [Theatre-level Readiness Operational Exercise] which Indian Navy conducts every two years.
- * SEA VIGIL and TROPEX together will cover the entire spectrum of maritime security challenges, including transition from peace to conflict.

70. **Answer : (b)**

Explanation: The Antarctic ozone hole — one of the deepest, largest gap in the ozone layer in the last 40 years — has closed, according to World Meteorological Organization (WMO).

Ozone Hole

- * An ozone hole is the thinning of the ozone layer boosted in size by colder temperatures.
- * The Antarctic ozone hole is a naturally occurring phenomenon, first discovered in 1985, that typically opens up each year from August to December.
- * By the end of December, ozone levels return to normal.

Causes

- * The formation of ozone hole in the Antarctic has been an annual occurrence and has been recorded for the last 40 years.
- * The expansion of the hole was driven by a strong, stable and cold polar vortex and very cold temperatures in the stratosphere.
- * Human-made chemicals migrate into the stratosphere and accumulate inside the polar vortex.

Polar Vortex

- * It is a large area of low pressure and cold air surrounding the Earth's North and South poles.
- * The term vortex refers to the counter-clockwise flow of air that helps keep the colder air close to the poles.
- * It weakens in summer and strengthens in winter.
- * Often during winter in the Northern Hemisphere, the polar vortex will become less stable and expand, sending cold Arctic air southward over the United States with the jet stream.

Weakening of Polar Vortex

- * As the temperatures high up in the stratosphere starts to rise, ozone depletion slows, the polar vortex weakens and breaks down.
- * By the end of December, ozone levels return to normal.

Montreal Protocol

- * The Montreal Protocol on Substances that Deplete the Ozone Layer regulates production and consumption of nearly 100 chemicals referred as Ozone Depleting Substances (OSD).
- * Since the ban on halocarbons, the ozone layer has slowly been recovering, according to WMO.

71. **Answer: (b)**

72. **Answer: (b)**

Explanation: Statement 1 is incorrect: Financial Intelligence Unit - India (FIU-IND) under the Department of Revenue, Ministry of Finance is the central national agency responsible for

receiving, processing, analyzing and disseminating information relating to suspect financial transactions to enforcement agencies and foreign FIUs.

73. **Answer: (a)**

Explanation: Statement 1 is incorrect: India is a signatory to this treaty, and ratified it in 1982.

74. **Answer: (d)**

Explanation: All statements are correct

75. **Answer: (a)**

Explanation: Statement 1 is incorrect: ESZs are areas around the Protected Areas (PA) and wildlife corridors declared as ecologically fragile under the Environment (Protection) Act, 1986. Statement 2 is incorrect: As per 2011 Guidelines, proposal for ESZ should be prepared by the states considering various parameters and forwarded to the MoEF&CC for further processing and notification

76. **Answer: (d)**

Explanation: All statements are correct

77. **Answer: (b)**

Explanation: Statement 1 is incorrect: National Bureau of Plant Genetic Resources (NBPGR) is the nodal agency for management of plant genetic resources of all agri-horticultural crops

78. **Answer: (c)**

Explanation: Both statements are correct

79. **Answer: (b)**

80. **Answer: (b)**

Explanation: Statement 1 is incorrect: It aims to develop basic tourism infrastructure in and around heritage sites, monuments and tourist sites. Statement 3 is incorrect: Public/Private sector companies or Trusts or NGOs or individuals successfully selected through the process of 'Vision Bidding', on a competitive basis for the project shall be known as Monument Mitras. There is no financial bid involved.

81. **Answer : (d)**

Explanation :

Directorate General of Foreign Trade(DGFT):

- * Directorate General of Foreign Trade (DGFT) organisation is an attached office of the Ministry of Commerce and Industry and is headed by Director General of Foreign Trade.
- * Right from its inception till 1991, when liberalization in the economic policies of the

Government took place, this organization has been essentially involved in the regulation and promotion of foreign trade through regulation.

- * Keeping in line with liberalization and globalization and the overall objective of increasing exports, DGFT has since been assigned the role of "facilitator". The shift was from prohibition and control of imports/exports to promotion and facilitation of exports/imports, keeping in view the interests of the country.
- * DGFT is the main governing body in matters related to Exim Policy.

82. **Answer : (c)**

Explanation :

International Labour Organisation (ILO):

- * ILO is the only tripartite U.N. agency that brings together governments, employers and workers of 187 member States, to set labour standards, develop policies and devise programmes promoting decent work for all women and men.
- * It was created in 1919 by the Versailles Peace Treaty ending World War I.
- * After the demise of the League of Nations, the ILO became the first specialized agency associated with the UN. Its secretariat is in Geneva, Switzerland.
- * In 1988, the international labour conference adopted the "Declaration on Fundamental Principles and Rights at Work", which aims to eliminate all forms of forced or compulsory labour, abolition of child labour and the elimination of discrimination in employment and occupation.
- * It publishes the Global Wage report.
- * India is a founder member of the ILO: In 2017 India has ratified two key ILO global conventions- Convention 138 and Convention 182.
- * Convention 138 calls for the minimum age for employment to be not less than the age of completion of compulsory schooling. In India, it is 14 years according to the Right to Education Act.
- * Convention 182 penalises and prohibits the worst form of child labour.

83. **Answer : (a)**

Explanation : The third phase of Pradhan Mantri Kaushal Vikas Yojana (PMKVY 3.0) will be launched tomorrow in 600 districts across all states of India.

- * The main objective of the Skill India programme is to provide adequate training in market-relevant skills to over 40 crore youth by 2022. 1 is correct.
- * It is spearheaded by the Ministry of Skill Development and Entrepreneurship (MSDE). 2 is incorrect.

84. **Answer : (c)**

Explanation : The National Policy on Biofuels-2018

- * It envisages an indicative target of 20% blending of ethanol in petrol and 5% blending of bio-diesel in diesel by 2030.
- * Now it has been proposed to prepone the 20% blending of ethanol with petrol by 2025.
- * It allows production of ethanol from damaged food grains like wheat, broken rice etc. which are unfit for human consumption.
- * The policy also allows conversion of surplus quantities of food grains to ethanol, based on the approval of the National Biofuel Coordination Committee.
- * Use of damaged foodgrains and surplus foodgrains for production of ethanol will increase its availability for Ethanol Blended Petrol (EBP) Programme.
- * Benefits: Annual foreign exchange impact of about Rs. 5070 crore and carbon emission reduced to the extent of 29.94 lakh tonnes.
- * Under the EBP programme, ethanol blending in petrol is being undertaken by the Oil Marketing Companies (OMCs).

85. **Answer : (b)**

Explanation :-

- * In agriculture, fungi are useful if they actively compete for nutrients and space with pathogenic microorganisms such as bacteria or other fungi. For example, certain fungi may be used to eliminate or suppress the growth of harmful plant pathogens, such as insects, mites, weeds, nematodes.
- * Fungi have been shown to bio mineralize uranium oxides, suggesting they may have application in the bioremediation of radioactively polluted sites.

86. **Answer : (c)**

Explanation :

- * The Antarctic Treaty and related agreements, collectively known as the Antarctic Treaty

System (ATS), regulate international relations with respect to Antarctica, Earth's only continent without a native human population. For the purposes of the treaty system, Antarctica is defined as all of the land and ice shelves south of 60°S latitude. The treaty entered into force in 1961.

- * The treaty sets aside Antarctica as a scientific preserve, establishes freedom of scientific investigation, and bans military activity on the continent. The treaty was the first arms control agreement established during the Cold War. Since September 2004, the Antarctic Treaty Secretariat headquarters has been located in Buenos Aires, Argentina.

87. **Answer : (b)**

Explanation :

- * An aurora, sometimes referred to as polar lights, northern lights (aurora borealis) or southern lights (aurora australis), is a natural light display in the Earth's sky, predominantly seen in the high latitude regions (around the Arctic and Antarctic).
- * Auroras are produced when the magnetosphere is sufficiently disturbed by the solar wind. It usually occur in upper atmosphere (thermosphere/exosphere) due to Earth's magnetic field.

88. **Answer : (a)**

Explanation : Petroleum Conservation Research Association (PCRA):

- * It is a registered society set up under the aegis of the Ministry of Petroleum & Natural Gas, Government of India, in 1978.
- * As a non-profit organization, PCRA is a national government agency engaged in promoting energy efficiency in various sectors of economy.
- * It helps the government in proposing policies and strategies for petroleum conservation, aimed at reducing excessive dependence of the country on oil requirement.
- * Over the years, PCRA has enlarged its role in improving productivity in use of various sources of energy.

89. **Answer : (c)**

Explanation :

In 2018, the WHO called for elimination of industrially produced TFAs by 2023, and brought out a step-by step guide called 'REPLACE' to help countries frame policies. The

REPLACE action package provides a strategic approach to eliminating industrially-produced trans fat from national food supplies, with the goal of global elimination by 2023. Increased intake of trans fat (>1% of total energy intake) is associated with increased risk of coronary heart disease mortality and events.

90. **Answer : (d)**

Explanation :-

- * The Constitution of India provides for judicial review under Article 13, Articles 32 (Supreme Court) and 226 (High Court).
- * Article 13(2) - The State shall not make any law which takes away or abridges the rights conferred by this part and any law made in contravention of this clause shall, to the extent of the contravention, be void.
- * Article 32 of the Indian Constitution enshrines this provision whereby individuals may seek redressal for the violation of their fundamental rights.
- * The Article 226 empowers High Courts to issue directions, orders or writs in the nature of habeas corpus, mandamus, prohibition, quo warrant and certiorari. Such directions, orders or writs may be issued for the enforcement of fundamental rights or for any other purpose.
- * Article 13 declares that all laws that are inconsistent with or in derogation of the Fundamental Rights shall be null and void.
- * Article 135 empowers the Supreme Court to exercise the jurisdiction and powers of the Federal Court under any pre-constitution law.
- * Article 372 deals with the continuance in force of the pre-constitution laws.

91. **Answer : (b)**

Explanation :

- * The State Government may constitute any forest-land or waste-land which is the property of Government, or over which the Government has proprietary rights, or to the whole or any part of the forest-produce of which the Government is entitled, a reserved forest in the manner hereinafter provided.

Hence Statement 1 is incorrect.

- * The control of all rivers and their banks as regards the floating of timber, as well as the control of all timber and other forest-produce in transit by land or water, is vested in the State

Government, and it may make rules to regulate the transit of all timber and other forest-produce.

Hence Statement 2 is correct.

92. **Answer : (b)**

Explanation :

- * Wular Lake (Jammu & Kashmir) is the largest freshwater lake in India, formed by tectonic activity.

Hence Statement 1 is correct

- * Lonar in Maharashtra is a volcanic lake.

Hence Statement 2 is correct

- * Lake Chilka is formed due to Marine deposits.

Hence Statement 3 is incorrect

93. **Answer : (a)**

Explanation :

- * ASTRA is a Beyond Visual Range (BVR) class of Air-to-Air Missile (AAM) system designed to be mounted on fighter aircraft.

Hence Statement 1 is incorrect.

- * ASTRA is designed to engage and destroy highly manoeuvring supersonic aircraft.

- * The missile has all weather day and night capability.

Hence Statement 2 is correct.

94. **Answer : (c)**

Explanation :

- * The Pinaka is an Artillery Missile System capable of striking into enemy territory up to a range of 75 kilometres with high precision.

Hence Statement 1 is correct.

- * The Pinaka MK-II Rocket is modified as a missile by integrating with the Navigation, Control and Guidance System to improve the end accuracy and enhance the range. The Navigation system of the missile is also aided by the Indian Regional Navigation Satellite System (IRNSS).

Hence Statement 2 is correct.

95. **Answer : (a)**

Explanation :-

- * Indian Navy to Get Upgraded Fuel HFHSD - IN 512. On 13 January 2020, the launch of the new fuel (High Flash High Speed Diesel) HFHSD - IN 512, with revised technical specifications was undertaken.

- * With this, the country will be able to ensure interoperability amongst foreign navies during fleet exercises and provide fuel of quality better than

that mandated to all foreign navies under bilateral/ multi-national logistics support pacts including LEMOA (Logistics Exchange Memorandum of Agreement).

96. **Answer : (a)**

Explanation :-

- * The Prime Minister of India will interact with startups and address 'Prarambh: Startup India International Summit', to mark the fifth anniversary of the Startup India initiative, launched on 16 January, 2016.
- * The Summit is being organized by the Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce and Industry.

97. **Answer : (c)**

Explanation: According to the United Nations Environment Programme's (UNEP) Adaptation Gap Report, 2020, the annual cost of adaptation to the effects of climate change for developing countries is estimated to at least quadruple by 2050.

98. **Answer : (d)**

Explanation :-

- * The New Start Treaty is an agreement signed by the Obama administration with Russia that caps Russian and U.S. nuclear arsenal. 1 is correct.
- * New START (Strategic Arms Reduction Treaty) is a nuclear arms reduction treaty with the formal name of Measures for the Further Reduction and Limitation of Strategic Offensive Arms.
- * It is due to expire next February, 2021
- * The Intermediate-Range Nuclear Forces Treaty was a Treaty Between the United States of America and Russia on the Elimination of Their Intermediate-Range and Shorter-Range Missiles. 2 is correct.

99. **Answer : (a)**

Explanation: Special Marriages Act, 1954 (SMA)

- * It is the legislation that is used to register inter-religious and inter-caste marriages in India.
- * This Act includes Hindus, Muslims, Christians, Sikhs, Jains, and Buddhists marriages.

- * It allows two individuals to solemnise their marriage through a civil contract.
- * There are no religious formalities that need to be carried out under the Act. 1 is correct.
- * The fundamental requirement under this Act for a valid marriage is the consent of both parties to the marriage. 2 is incorrect.
- * If both parties to the marriage are willing to marry each other, that's enough.
- * No barrier: Caste, religion, race, etc. can't act as a barrier to their union here.
- * Process of marriage:
 - * Prior notice: For marriage under this Act, the parties must file with the district's Marriage Registrar a notice stating their intention to marry each other in which at least one of the parties to the marriage has lived for at least 30 days prior to the date on which such notice is filed.
 - * After the expiry of 30 days from the date that such notice was published, the marriage is then said to be solemnized.
 - * Objections: But if any person related to the parties objects to this marriage and the registrar finds that it is a reasonable cause of objection, on such grounds he can cancel the marriage.
 - * For a valid marriage, the parties must also give their consent to the marriage before the marriage officer and three witnesses.
 - * These are the basic requirements for a valid marriage under the Special Marriage Act that every Indian must know about.

100. **Answer : (d)**

Explanation :

- * Treasury bills are zero coupon securities and pay no interest. Instead, they are issued at a discount and redeemed at the face value at maturity.

Hence Statement 1 is correct.

- * The CMBs have the generic character of T-bills but are issued for maturities less than 91 days.

Hence Statement 2 is correct.

UPSC CIVILS MAIN TEST

TOPIC: GENERAL STUDIES

Time allowed: 180 Minutes Maximum Marks: 250

Question Paper Specific Instructions

Please read the following instructions carefully before attempting questions:

- ★ There are **TWENTY** questions printed in **ENGLISH**
- ★ All the questions are compulsory.
- ★ The number of marks carried by a question/part is indicated against it.
- ★ Answer must be written in the medium authorized in the Admission certificate which must be stated clearly on the cover of this Question-cum-Answer (QCA) booklet in the space provided. No marks will be given for answer written in medium other than the authorized one.
- ★ Answers to Questions No.1 to 10 should be in 150 words, whereas answers to Questions No.11 to 20 should be in 250 words.
- ★ Each question carries 12.5 marks.
- ★ Any page or portion of the page left blank in the Question-cum-Answer booklet must be clearly struck off.

MAINS QUESTION PAPER

1. More than ever before, Mahatma Gandhiji's teachings are valid today, when people are trying to find solutions to the rampant greed, widespread violence and runaway consumptive style of living. Elaborate.
2. Highlight the central Asian and Greco-Bactrian elements in the Gandhara art.
3. The 1857 Uprising was the culmination of the recurrent big and small local rebellions that had occurred in the preceding hundred years of British Rule. Elucidate
4. Examine the linkages between the nineteenth century's Indian renaissance and the emergence of national identity
5. Assess the impact of global warming on the coral life system with examples.
6. Discuss the causes of depletion of mangroves and explain their importance in maintaining coastal ecology.
7. Can the strategy of regional resource-based manufacturing help in promoting employment in India?
8. Discuss the factors for localisation of agro-based food processing industries of NorthWest India.
9. What makes the Indian society unique in sustaining its culture? Discuss.
10. "Empowering women is the key to control population growth". Discuss.
11. What are the challenges to our cultural practices in the name of secularism?
12. What is 'Quantum Supremacy'? Researchers called it a milestone towards full scale quantum computing.
13. "Climate change affecting world's ocean ecosystem." Discuss it in the context of recently released report of IPCC on Oceans and Cryosphere
14. Discuss the reasons behind the frequent number of floods in the Northern India
15. Critically discuss the issues and challenges related to NRC in Assam.
16. Cities, as engines of economic growth, continue to drive India's march into the 21st century. Will they turn out to be our biggest impediments because of inefficient planning? Critically discuss.
17. Though, India declared itself ODF on 2nd October 2019, but there are still miles to go to sustain the ODF status. Discuss.
18. What is 'principle of ethical egoism'? Do you agree with the statement that 'in general, nature of human society, if not properly regulated, would result in a chaos and a state of war? Why 'conflict' becomes a more natural outcome than 'cooperation' in modern societies?
19. You are professor as well as a social activist. There is an educated and well employed couple in your vicinity who often fight on their personal issues. One day they started fighting as usual, starting from arguments, turning loud, slamming doors and finally the male partner resorting to physical violence, the cry of wife and children started coming out. People come out, but do not dare to go to them citing that it is their personal matter, so any interference would be unethical and uncalled for. Answer the following questions based on the above case:
 - a. Would you agree to be a bystander on the advice of the people that it is a personal matter of the couple? Give reasons

- b.** Suppose you go to the flat of the couple and enquire what is wrong but the male member insists that they be left on their own as it is their personal matter and you should mind your own business. What would be your reaction?
 - c.** Can police help in curbing this social malady by using legal authority and provisions?
 - d.** What is your moral and ethical locus standi on intervention of neighbours to stop the domestic violence?
- 20. You are a civil servant and posted at a place with multi-cultural and multi-identity population with one dominant majority group and a big minority group. There arose a dispute on setting up statues of their respective icons in the area, cross claiming the same space. Any casual or delay will cost huge as past history indicates of big conflicts. Election is round the corner so different interest groups are eyeing to reap the benefits and has tensed the environment. Answer the following questions:
 - a.** What preventive steps would you take to stop flaring up of a brewing dispute?
 - b.** If the dispute flares up and turns violent, what would be your quick measures to contain it?
 - c.** How do you react when failure to pre-empt and contain such a situation leads to your suspension?

MAINS KEY PAPER

1. More than ever before, Mahatma Gandhiji's teachings are valid today, when people are trying to find solutions to the rampant greed, widespread violence and runaway consumptive style of living. Elaborate.

A: It has been seventy years since Mahatma Gandhi departed from our midst. But his life and soul continue to animate humanity transcending national and international boundaries. His contribution to human development is far too great and varied to have been forgotten or to be overlooked. The world today recognizes him as a far more compelling social innovator than humanity ever realized.

Gandhiji's philosophy of inclusive growth is fundamental to the building of a resurgent rural India. He believed in "production by the masses" rather than in mass production, a distinctive feature of the industrial revolution. Gandhi envisaged villages as self-sufficient republics. He knew that India lived in its villages, which is why he stressed on the growth of the rural economy such as khadi, handloom, handicraft and sericulture.

In recent years, we have witnessed terrorist violence affecting almost all countries. Even the so called advanced, affluent nations suffer from the menace of terrorist violence. Today, people are divided not only on economic basis but also on national, regional and religious basis. The situation demands that non-violent techniques as a means of social change are put into practice immediately. Gandhiji held that violence was wrong as a matter of principle.

The focus of 21st century is on sustainable development. By definition, sustainable development is the development of the present generation without compromising the abilities of future generations.

Though the concept of sustainable development was alien to Gandhi, his constructive programmes were the first expressions of such a development without destroying nature and natural environment.

2. Highlight the central Asian and Greco-Bactrian elements in the Gandhara art.

A: Gandhara School of art was the epitome of Cultural Revolution in present day's west Pakistan and east Afghanistan during Kushan rule, of which Gandhara sculpture was an important part, depicting sculpture of Buddha.

How geographical location of Gandhara art facilitated interaction of various artistic components:

- ★ Geographical position of the region was at the crossroads of cultural exchange which resulted into interaction of artistic components.
- ★ This area witnessed the advent of number of foreign powers and political configuration ranging from the Greek, Bactrian to Kushanas. Thus Gandhara style was amalgam of Hellenistic-Roman, Iranian and indigenous art.

The central Asian and Greco-Bactrian elements in the Gandhara art:

Greek Influence:

- ★ It can be observed in the form of Buddha's wavy hair, draperies covering both shoulders. Footwear, Buddha has been shown under the protection of Greek God Herakles standing with his club and so on. In fact, the very concept of man-God is attributed to the Greeks. The Buddha's mythological statue can also be related to Greeks.
- ★ Some examples of Gandhara art depict both Buddha and the Greek God Herakles from Greek Mythology. Stucco plaster, which was commonly observed in Greek art, was widely used in Gandhara artwork for the decoration of monastic and cult buildings.

Roman influence:

- ★ It is evident from the sculpture of Gautama Buddha, with a youthful Apollo-like face, dressed in garments resembling the scenes on Roman imperial statues.
- ★ Gandhara sculpture incorporated many motifs and techniques from classical Roman art too, as seen from vine scrolls, cherubs

bearing garlands, tritons and centaurs.

- ★ Additionally, the Gandhara art drew from the anthropomorphic traditions of Roman religions.
- ★ The realistic sculpture of Buddha is also associated with Romans.

Central Asian influence:

- ★ In Gandhâran art, specific types of Buddhist cult structures were elaborately constructed.
- ★ Paintings, bas-reliefs and sculpture richly decorated secular and especially cult buildings.
- ★ Columns, pilasters (mainly derived from the Corinthian order) and other architectural elements usually had magnificent plastic arrangement.
- ★ Temples built in the area influenced by Gandhâran art normally included central square structures with circumambulatory corridors (Haa, Swât, and Miran). The idea of circumambulatory corridors was undoubtedly of Iranian origin, since fire temples with such corridors appear in Iran from the Achaemenid time.
- ★ The Buddhist architects of Central Asia, where Buddhist shrines with circumambulatory corridors continued to be built down to the 7th-8th century accepted this pattern.
- ★ Schemes for the ground plans of monasteries display many varieties.
- ★ When the space was limited, 'glued' plans could be applied, combining two or three isolated parts with different functions: the sacred one (temple) with a large stupa in the middle; living quarters with monks' cells and a prayer-hall, etc.
- ★ This architectural pattern was widespread in Central Asia both in the Kushan period (as in Fayâ-y-tepe) and later (as in Ajina-tepa).

Conclusion:

The above influences can be well justified because of strategic location of Gandhara school. Thus in this regard it can be claimed that the art that flourished in the Gandhara valleys was a blend of different cultures.

3. The 1857 Uprising was the culmination of the recurrent big and small local rebellions that had occurred in the preceding hundred years of British Rule. Elucidate

A: Though many people consider 1857 revolt as the first major resentment against the British rule, however there were many incidents before 1857 revolt that indicated that there was a building resentment against the rule of Britishers.

Types of revolts occurred in the last 100 years from 1857:

In the last hundred (1757-1857) there were many revolts occurred that eventually led to uprising of 1857 revolt, which can be divided into 4 major parts:

- A. Civil revolts:** These were the first group of people who revolted against Britishers to secure their traditional and customary rights. For instance, sanyasi revolts (1763-1800), revolts in Midnapore and Dhalbhum during 1766-74, revolts of Moamarias in Ahom state 1769, revolt of Raja of Vijayanagaram 1794, and civil rebellion in Awadh 1799, Kuka 1840, Surat salt agitation of 1840s were some major civilian revolts with common causes of resentment, that were illegal tax demands and oppression by police, judiciary and revenue department.
- B. Tribal revolts:** Tribal movements under British rule were the most frequent militants and violent of all movements. Some of them were Chuar uprising of Midnapur, Bengal of 1770s, Kol of Chhota Nagpur during 1830s led by Buddho Bhagat, Khond uprising of Odisha 1835 to 1856 led by Chakra Bisnoi, Santhal uprising led by Siddhu and Kanu just before 1857 revolt, Bhil and Ramoshi uprising in western India. The resentment of tribal against Britishers were mainly due to imposition of forest rights Act, forcefully conversion of tribals by Christian missionaries, oppression by money lenders and zamindars after extension of permanent settlement in tribal areas.
- C. Peasant revolts:** Peasants uprising were protests against evictions, increase in rents of land, and moneylenders greedy ways and their demands was occupancy rights for peas-

ants. some major and minor peasants revolts were for instance : pagal panthis of Bengal led by Karamshah during 1825 to 35, Faraizi revolt in eastern Bengal led by Hazi Shariatullah and his son Dadu Milan, Mopillah uprising in Malabar during 1834 to 1854 and Paika revolt of Khurda, Odisha led by B Jagbandhu. The common provoking cause of resentment of these peasants were exorbitant demand of land revenue, oppression of officials and frequent occurrence of drought and famine etc.

D. Princely states revolts: With the expansion of Britishers in India some princely states were annexed on excuse of maladministration and use of diplomacy of subsidiary alliance and Doctrine of Lapse. For instance Mysore in 1831 by William Bantick, Jhansi in 1852, Awadh in 1856. They also revolted against Britishers.

Conclusion:

Thus, it can be said that these rebellions-which were localised in nature, lacking of efficient leadership and influenced by backward looking ideology were suppressed by Britishers with use of force but still they established a culture of resistance among natives and eventually prepared the way for 1857 revolt.

4. Examine the linkages between the nineteenth century's Indian renaissance and the emergence of national identity

A: The social and religious reforms movement's popularly termed as Indian renaissance which preceded the political struggles are considered a necessary precursor to origin of Indian nationality.

How renaissance facilitated the emergence of national identity:

- ★ Rediscovery of India's glorious past: The nineteenth century Indian Renaissance also created several avenues in the field of oriental studies. Western scholars like Max Muller, Sir William Jones, Alexander Cunningham, etc. translated several ancient Sanskrit texts of this land and established before the people the glorious cultural heritage of India. Inspired by them, the Indian scholars like R.D - Banerjee, R.G. Bhandarkar,

MahanMukhopadhyaya, Hara Prasad Astir, Bal Gangadhar Tilak etc. rediscovered India's past glory from the history of this land. This encouraged the people of India who felt that they were the ancestors of grand monarchs of this country and ruled by foreigners. This flared up the fire of nationalism.

- ★ Revivalist Movements: Under these movements Indian culture and civilisation were proclaimed superior. Swami Dayanand Saraswati, Swami Vivekanand etc were the leaders of these movements.
- ★ Reformists movements of that time such as Brahmo Samaj (led by Raja Ram Mohan Roy) etc condemned existing untouchability and tried to abolish the caste system. Their ideas of equality and brotherhood attracted the lower castes towards nationalism.
- ★ These reforms also focussed upon emancipation of women. They opposed the practice of sati, supported remarriage of widows and also promoted spread of education among women. All these helped women to join national movements.

Conclusion:

Apart from the progressive character of social religious reforms, role of press, English Education, result and reaction of colonial policies etc have also played a significant role in developing national identity in India.

5. Assess the impact of global warming on the coral life system with examples.

A: Destruction of coral reef can be induced by a variety of factors, alone or in combination. However, unprecedented global warming and climate changes combined with growing local pressures have resulted in destruction of coral reefs to a large extent.

Impact of global warming on the coral life system:

Coral Bleaching:

- ★ The impacts from coral bleaching are becoming global in scale, and are increasing in frequency and intensity.
- ★ Mass coral bleaching generally happens when temperatures around coral reefs exceed 1 degree Celsius above an area's historical norm

for four or more weeks. Sea surface temperature increases have been strongly associated with El Niño weather patterns.

- ★ However, light intensity, (during doldrums, i.e. flat calm conditions), also plays a critical role in triggering the bleaching response. If temperatures climb to more than 2°C for similar or longer periods, coral mortalities following bleaching increase.

Rising sea levels:

- ★ Observations since 1961 show that the average temperature of the global ocean has increased even at depths of 3000m (IPCC report), and that the ocean has been absorbing more than 80% of the heat added to the climate system. Such warming causes sea level rise and creates problems for low lying nations and islands.

Ocean acidification:

- ★ It refers to a change in ocean chemistry in response to the uptake of carbon dioxide from the atmosphere. The amount of carbon dioxide in the atmosphere is in equilibrium with that in seawater, so when atmospheric concentrations increase so do oceanic concentrations.
- ★ Carbon dioxide entering seawater reacts to form carbonic acid, causing an increase in acidity.
- ★ Each year, the ocean absorbs about one-quarter of the carbon dioxide emitted from the burning of fossil fuels (oil, coal, and natural gas).
- ★ Since the Industrial Revolution, ocean acidity has increased by about 30%, a rate that is more than 10 times what has previously occurred for millions of years. Further, ocean acidity levels are expected to increase by an additional 40% above present levels by the end of this century.

Conclusion: Coral reefs harbour the highest biodiversity of any ecosystem globally and directly support over 500 million people worldwide, mostly in poor countries. However, according to UNESCO, the coral reefs in all 29 reef-containing World Heritage sites would cease to exist by the end of this century if we continue to emit greenhouse gases. Limiting global average temperature

to well below 2°C above preindustrial levels in line with the Paris Agreement provides the only chance for the survival of coral reefs globally.

6. Discuss the causes of depletion of mangroves and explain their importance in maintaining coastal ecology.

- A:** Mangrove forests form a unique wetland ecosystem, inhabiting the edge of land and sea, thriving in seawater. Over the past four decades 35% of global mangrove forests have been destroyed. This degradation of mangrove forests has a knock-on effect on some of the world's most endangered species which rely on them for habitat such as the proboscis monkey and the Bengal tiger.

Causes of depletion of mangroves:

The natural causes:

- ★ Cyclones, typhoons and strong wave action especially in the geographically vulnerable Andaman and Nicobar Islands;
- ★ Browsing and trampling by wildlife (e.g. deer) and livestock (goats, buffaloes and cows), which are often left to graze freely, especially in areas close to human habitation;
- ★ Damage by oysters to the young leaves and plumules of Rhizophora and Ceriops plants; crabs, which attack young seedlings, girdle the root collars and eat the fleshy tissues of the propagules
- ★ Insect pests such as wood borers, caterpillars (which eat the mangrove foliage and damage the wood as well) and beetles;

Anthropogenic causes:

- ★ Anthropogenic activities such as construction of houses and markets causing soil erosion and soil sedimentation has led to their destruction. For example in Sunderbans collection of tiger prawn seeds for trade has greatly affected the other animals found in these forests.
- ★ Indiscriminate tree felling and lopping, mainly for fuel wood, fodder and timber, especially in areas close to human habitation.
- ★ Indiscriminate conversion of mangroves on public lands for aquaculture (e.g. for prawn culture at Chorao, Goa), agriculture, mining (e.g. along the Mapusa estuary in Goa), human habitation and industrial purposes.

- ★ Encroachment on publicly owned mangrove forest lands, e.g. cultivation of paddy observed on government land, which involved uprooting of natural and planted seedlings;
- ★ Lack of interest of private landowners (village communities and individuals) in conserving and developing the mangroves on their lands.
- ★ Illegal large-scale collection of mangrove fruits for production of medicines, which hinders their natural regeneration.
- ★ Discharge of industrial pollutants into creeks, rivers and estuaries, which is a major problem in some regions of the world.

Importance of mangroves in maintaining coastal ecology:

- ★ Mangrove plants have (additional) special roots such as prop roots, pneumatophores which help to impede water flow and thereby enhance the deposition of sediment in areas (where it is already occurring), stabilise the coastal shores, provide a breeding ground for fishes.
- ★ Provide a safe and favourable environment for breeding, spawning, rearing of several fishes.
- ★ They supply woods, firewood, medicinal plants and edible plants to local people.
- ★ Mangroves moderate monsoonal tidal floods and reduce inundation of coastal lowlands.
- ★ They prevent coastal soil erosion.
- ★ They protect coastal lands from tsunami, hurricanes and floods.
- ★ Mangroves enhance the natural recycling of nutrients.
- ★ Mangrove supports numerous flora, avifauna and wildlife.

Conclusion: Mangrove forests play a major role with more valuable ecological services. Therefore conservation of the same is the need of the hour not only for the coastal biodiversity but also for wellbeing of the mankind.

7. Can the strategy of regional resource-based manufacturing help in promoting employment in India?

A: A local resource-based approach applies a cost-effective use of local skills, enterprises, labour

and materials in the infrastructure delivery process. The process optimizes the social and economic impact of investments in Manufacturing by ensuring that these investments are channelled through the local economy, so creating job opportunities and stimulating local markets, entrepreneurship and industry while safeguarding cost effectiveness, quality and sustainable asset delivery.

Reason for Opting for local resource-based technologies:

- ★ Government development objectives aim to generate employment and income opportunities for the local population and domestic construction industry.
- ★ The infrastructure concerned requires relatively modest investments, e.g., rural roads, secondary and tertiary irrigation channels and small and medium-scale structures.
- ★ Local resources including labour, skills, enterprises and materials are available.
- ★ Scarcity of foreign exchange makes the use of imported inputs an economically unattractive option.
- ★ A significant proportion of the population is UN- or under-employed
- ★ Wage levels are low.

How it can help in promoting employment in India?

- ★ Local resource-based approach is to deliver public (and private) investments in infrastructure as a means of expanding employment opportunities for the unemployed, raising productivity, providing social and economic infrastructure assets and facilities, permitting trade and generally improving well-being.
- ★ Given the relative scarcity of capital and skilled labour, and the relative abundance of unskilled labour, countries with low incomes can rapidly achieve pro-poor growth by applying employment friendly technologies in as many sectors as possible. This would rapidly increase the demand for unskilled and low-skilled labour.
- ★ Several investment programmes have a huge employment creation potential if delivered via employment-friendly technology and local enterprises. Investment in public infrastruc-

ture accounts for as much as 40 to 60% of national public investment in most developing countries. Public investment programmes therefore represent one of the few remaining government policy instruments through which productive employment opportunities can be stimulated and more balanced economic and social development promoted.

- ★ Promotion of local resource-based approach in manufacturing is done in order to optimize their impact on poverty reduction in labour-surplus countries and provides technical assistance for this purpose.

Benefits of a local resource-based approach:

- ★ It enables higher delivery and maintenance rates of basic assets and services essential for socioeconomic development such as vital access roads, water supplies, markets and health facilities with the same level of investment and at comparable or better quality standards.
- ★ Creates jobs, particularly for the unskilled, poorer men and women within the community. This results in the injection of incomes into the local communities, with the immediate effect of increasing their purchasing power. This, in turn, results in improving living standards such as improved diets, ability to access socio-economic amenities such as schools, clinics, etc.
- ★ Stimulates local entrepreneurship, community participation and local economic development with important income distribution effects.
- ★ Enables the involvement of the local private sector and industry, that is, contractors, suppliers and manufactures of local materials, tools and equipment. Hence nurtures and develops the local construction and manufacturing industry, retains investment locally and saves on foreign exchange required for foreign imports.
- ★ Develops skills in the delivery process that can be used in other income generating activities, as well as in subsequent maintenance works.
- ★ Offers opportunities for employment creation, social reintegration, and the stimula-

tion of local socio-economic development in countries emerging from either man-made crises or natural disasters.

In such countries governments have few macro-economic tools at their disposal to revive their economies and to enable economic and social recovery. Public investment in infrastructure provides one such tool.

Conclusion: Thus, Regional Development leads to the distribution of employment opportunities on an equitable basis and they are not let to confine only to a handful of states which are creation-gaps in the per capital income among different regions.

8. Discuss the factors for localisation of agro-based food processing industries of North West India.

- A:** The agro-based industry depends on the raw material produced by the agricultural sector. It includes industries related to textiles, sugar, paper and vegetable oil. The products comprise mostly consumer goods. Agro-based industry is important from the point of view of contribution to industrial production and employment generation.

Factors affecting location of Agro-based food processing Industry in North-west India:

- ★ Location of port facilitated import of capital goods, chemicals, etc., and the export of finished goods.
- ★ In North-west India Mumbai got progressively well connected through rail and road links with cotton growing areas of Gujarat and Maharashtra in the interior.
- ★ Availability of raw cotton, market, transport including accessible port facilities, labour, moist climate, etc. contributed towards its localisation. This industry has close links with agriculture and provides a living to farmers, cotton boll pluckers and workers engaged in ginning, spinning, weaving, dyeing, designing, packaging, tailoring and sewing.
- ★ Development of chemical industry around North-West India made available the necessary inputs.
- ★ Availability of capital and financial resources helped the industry grow.
- ★ Availability of Cheap labour for the industry.

- ★ Inexpensive water transport, supported by a good network of railways, roadways and waterways to facilitate movement of raw material to the mills.
- ★ India stands second as a world producer of sugar. In recent years, there is a tendency for the mills to shift and concentrate in the western states, especially in Maharashtra; this is because the cane produced here has higher sucrose content. The cooler climate also ensures a longer crushing season. Moreover, the cooperatives are more successful in these states.

Challenges:

- ★ Agribusiness is characterized by raw materials that are mostly perishable, variable in quality and not regularly available.
- ★ The sector is subject to stringent regulatory controls on consumer safety, product quality and environmental protection.
- ★ Traditional production and distribution methods are being replaced by more closely coordinated and better planned linkages between agribusiness firms, farmers, retailers and others in the supply chains.

Conclusion: Agro-based industries have to set up at rural areas where raw material may be available in plenty - helps in the upliftment of the rural economy. It provides rural population an opportunity for employment. Generates income and thereby improves economic condition of people - which in turn creates potential for demand based industries. Thus, several factors govern the location of an industry.

But we have to remember that these factors are dynamic in nature. We can't say that an industry will always remain in a particular place. Availability of new raw materials, improvement in technology, development of new areas etc. influence the localization or location of industries.

9. What makes the Indian society unique in sustaining its culture? Discuss.

A: Culture is a way of life of people. It includes architecture, literature, art, science etc. Although Indian Society is multi cultural, plural, diverse having different religions, traditions, philosophies and lifestyles yet it is able to sustain its

diverse culture. The various aspects which result in the sustenance of culture are as follows:

Features of Indian Society which led to sustainability:

- ★ Principles of Tolerance and Respect: Indian society has been founded upon these which result in mutual respect and understanding for each other. The religions like Buddhism and Jainism have been founded upon these.
- ★ Assimilation process: The migrants from the times of Aryans to the Mughals have come and lived in India peacefully assimilating into the Indian way of life. Thereby sustaining the culture of the nation.
- ★ Spiritualism: The Indians have always been curious to find a unique way of life giving rise to spiritualistic elements in the way of life. The various philosophies have given way to a spiritual dimension in the living way of people.
- ★ Geographical: The monsoon makes the Indian subcontinent very suitable for the development of Agriculture. Thereby Agricultural way of life is lived by the people in various states still today. Agriculture gives way to tradition, festivals, interaction which over a long period turns into lifestyles of people.
- ★ Governance was basically based upon the Agricultural aspects, resulting in the Unified administration giving way to sustaining Indian way of life. This administration remains more or less similar from the times of Asoka to times of Akbar.
- ★ Political: The democratic threads have always been in the Indian polity though ruled by the King. Sabhas and Samitis in the Ancient to the Janapadas in the medieval have always been focused on the promotion of interests of the people.
- ★ Social: The tribals today also are living their unique life depicting that they have been able to sustain their culture irrespective of foreign dominations on the country. Various castes also have unique way of living.

Conclusion: Though the foreigners have come to India looking at her as Golden Bird, but they assimilated into the culture of the Indian people and interacted with the commoners in their

unique way and settled here as the Indians. Thereby giving rise to the Great Indian way of life depicting Unity in Diversity where everyone would live with dignity and fraternity. The villages in India are still based on the Harappan architecture which shows that the ancient wisdom is still used by the people of our country in the present times.

10. "Empowering women is the key to control population growth". Discuss.

A: Empowerment refers to measures designed to increase the degree of autonomy and self-determination in people and in communities in order to enable them to represent their interests in a responsible and self-determined way, acting on their own authority. It is the process of becoming stronger and more confident, especially in controlling one's life and claiming one's rights.

Problem of population growth:

- ★ The population growth is the big challenge which is being faced by India. It is affecting the polity, economy, society of the country. It is also affecting rate of Urbanization and Modernization. The Economic Survey (2018-19) has mentioned the steps to tackle Population Growth. How women empowerment will help in tackling population growth:
- ★ Political Empowerment would result in increase in women's participation in the political processes, structures, institutions. This would enhance the voice of women at different platforms. Hence, women will be able to raise awareness about need of small families and birth control. At the same time increased awareness will lead to spread of benefits of smaller families.
- ★ Economic Empowerment: This will lead to the participation of women in the economic activities. This will lead to the increase in the family income and also improve the situation of women in making financial decisions. Thus there will be less requirement of income generating options one of which is, giving birth to more children. Thus this would lead to population check.
- ★ Social Empowerment: This would result in the improved status and boost confidence of the women. This confidence would ultimately

affect the decision making ability of the women. They would be able to take decisions regarding number of children they want. Thus it can check the population growth.

- ★ Constitutional Empowerment: This would result in raise in awareness of the women about their constitutional rights including right to life and liberty, freedom, and equality. Hence women will be able to make choices in the family planning and number of children they want to have. Thus it would lead to tackling population growth.
- ★ Technological Empowerment: If women are able to use technology like mobile phones etc, they would be able to receive the information about the advantages of small families and right age of having children. Also this would lead to the improved reproductive and general health of women. As the women would be aware of the options of various birth control measures like pills, tablets, etc. Also the test tube baby option would lead to checking population growth by restricting no of children.
- ★ Educational steps would lead to better knowledge about the benefits of small families. Thus women would be inclined to have less children and thus checking population growth.

Conclusion: Hence there is a saying that if "You educate a man, you educate only a man, but if you educate a woman, you educate a whole generation". This is the kind of effect women have and hence population control can be achieved by the empowerment of women in various spheres. This would have multiplier effect on other institutions of the society and economy and lead to sustainable development.

11. What are the challenges to our cultural practices in the name of secularism?

A: Secularism in India is different from western concept. It stands for mutual respect, understanding and tolerance for all the religions, major or minor and accepting difference of opinions.

Context to the Challenges faced by Indian Society:

However, there are many incidents like Mob lynching in name of religion which questions this concept in India. The death and violence of peo-

ple in name of cow protection. The dilemma and abnormal behavior over conversion issues. Political violence especially at the time of elections. Communal violence, extremism and spread of hatred among the people. These affect the way of life of people in various parts of the country. Cultural practices are the living ways of life of people, individual or collective, in the political, economic, social spheres.

Various challenges faced by the cultural practices in name of secularism are:

- ★ Intolerance and Violence: This leads to lack of tolerance and respect for each other. Deaths and violence in name of cow protection are examples of this.
- ★ Majoritarianism: This reflect upon use of religion for political mobilization of the people and spreading hatred against the minorities may be it Muslims, like case of Muzaffarnagar, Sikhs as in 1984, Christians as in Kandhamal.
- ★ Radicalization: The people are taken into believing ideologies which are extreme and may harm unity and integrity of the country. Security situations can be faced by the expansion of terrorism and exploitation of the vulnerable masses.
- ★ Fundamentalism: The belief in the fundamentals can pave way to deviant behavior leading to disruption of normal life in the name of religion.
- ★ Alienation: The people get distanced away from their traditional roots and feel socially, psychologically distance from other people in name of religion. The people going to Middle east for ISIS etc is an example of this.

Moreover the various challenges may hamper the inclusiveness of Indian democratic culture by promoting the ideological alienation. The above can result in Distance from Education, Employability, Excellence, fraternity and dignity of individual.

Conclusion: Thus, the challenges to the cultural practices in the name of secularism are several, affecting the people's rights to life and liberty, dignity and fraternity. However, in essence, our cultural practices are founded upon the principles and philosophies of tolerance, non-violence, truth, Vasudhaiv Kutumbakam (world is one fam-

ily), etc, which in turn are reflected in our modern constitutional principles. Thus, following them in practice would act as an effective check and balance against the challenges of modern times.

12. What is 'Quantum Supremacy'? Researchers called it a milestone towards full scale quantum computing.

A: Quantum supremacy refers to a quantum computer solving a problem that cannot be expected of a classical computer in a normal lifetime. This relates to the speed at which a quantum computer performs.

In principle, even the simplest universal computer can solve anything that is computable given infinite time to do so. So, "supremacy" is a matter of how quickly and reliably a computer can solve a problem. The purpose is to built a quantum device that can do at least one thing which is outside the reach of classical machines.

It is generally believed that at least 49 qubits are required to cross the quantum supremacy line. Qubits behave very differently to bits in classical computers.

Bits represent either a "1" or a "0," and computers read and perform operations on one bit at a time. In contrast, qubits can represent a combination state made up of both "1" and "0," due to the peculiar quantum effects in which properties like particle position, direction, and momentum are not well-defined. This allows for a system to be in multiple states at the same time, called quantum indeterminacy.

It could take quite a few years for quantum computers to achieve their full potential. Universities and businesses working on them are facing a shortage of skilled researchers in the field-and a lack of suppliers of some key components. But if these exotic new computing machines live up to their promise, they could transform entire industries and turbocharge global innovation.

13. "Climate change affecting world's ocean ecosystem." Discuss it in the context of recently released report of IPCC on Oceans and Cryosphere.

A: Over the last decades, global warming has led to widespread shrinking of the cryosphere, with mass loss from ice sheets and glaciers, reduc-

tions in snow cover and Arctic sea ice extent and thickness, and increased permafrost temperature.

Global mean sea level (GMSL) is rising, cryospheric and associated hydrological changes have impacted terrestrial and freshwater species and ecosystems, coastal ecosystems are affected by ocean warming, including intensified marine heatwaves, acidification, loss of oxygen, salinity intrusion and sea level rise, in combination with adverse effects from human activities on ocean and land. <

Glaciers could lose a fifth of their mass this century if emissions are low, and more than 80% in regions such as Central Europe. < Warming could "drastically alter" migration flows. If emissions are high, some island nations are "likely" to become "uninhabitable" this century. <

The just-released IPCC special report on the ocean and cryosphere in a changing climate details the immense pressure that climate change is exerting on ocean ecosystems and portrays a disastrous future for most life in the ocean and for the billions of people who depend on it unless anthropogenic greenhouse gas (GHG) emissions are slashed.

14. Discuss the reasons behind the frequent number of floods in the Northern India.

A: Ganga and other rivers have swelled up due to heavy rains in the North Indian states. More than 100 people have died due to flooding caused by heavy rains in these states.

- ★ Meteorological causes: The characteristics of rainfall determine the characteristics of floods. High magnitude rainfall is the most common cause of flood.
- ★ Geomorphic causes: Geomorphic causes include channel migration, meandering growth, avulsion and natural changes in the elevation of channel bed. These factors may cause the flood to occur in unexpected areas. In addition to these, landslides and surging glaciers can block rivers that cause massive floods when they fail such floods are common in many parts of the Himalayan and sub-Himalayan regions.
- ★ Anthropogenic causes: Within the last century anthropogenic effects on riverine environ-

ment have become more intrusive. Construction of dams, barrages, embankments and other engineering works has not only modified the natural behavior of the rivers, but has also added a new dimension to the problem of flooding.

- ★ Deposition of silt washed down from bare and poorly covered hill slopes in the upper reaches of a river, man-made obstructions to the free flow of rivers like bridges, embankments, etc.
- ★ Improper agricultural practices like shifting cultivation etc. and failure of dams and artificial lakes created by advancing glacier tongues or land slides.

15. Critically discuss the issues and challenges related to NRC in Assam.

A: The much-awaited updated Final National Register of Citizens (NRC) in Assam was released on last month, excluding names of over 19 lakh applicants.

- ★ Several flaws have been identified in this process, from the lack of legal aid to ex parte orders declaring people foreigners without even a trial. Tribunal members are pressured to declare the maximum number of foreigners rather than clear people of the charge. In anticipation of a fresh rush of cases after the final list, 1,000 more tribunals are being set up across the state. Neither the state nor the Centre has clarified what happens to those who lose their cases in the FTs, whether they will be detained, deported or allowed to stay on without the rights and privileges of citizenship.
- ★ The Assam National Register Citizens is being seen as a stepping stone to more general NRC for the entire country. There are concerns and fears that such an NRC could end up targeting minorities in the country.
- ★ Pushing lakhs of individuals into the drudgery of appeals to FTs and courts, putting them in detention centres notorious for degrading conditions, and relegating them to secondary citizenship or statelessness are bound to bring extreme suffering to the people, the majority of whom are already living a marginalised existence.

16. Cities, as engines of economic growth, continue to drive India's march into the 21st century. Will they turn out to be our biggest impediments because of inefficient planning? Critically discuss.

A: India's leading megapolises face numerous challenges in providing their beleaguered citizens a better quality of life. If this is the scenario with two of our most vibrant global cities, the challenges for the rest of urban - and fast urbanising - India indeed seem daunting.

- ★ Notwithstanding such indices or the methodologies adopted for their preparation, it is true that the governance of Indian cities is besotted with basic and deeply entrenched flaws. So much so, that no particular city stands a chance of coming anywhere close to the global benchmarks in most of the above-mentioned parameters. Failed attempts made by successive governments in the past provide ample proof of the urban mess that India has created for itself.
- ★ It is possible to make modern cities affordable if policymakers make a concerted effort. In addition to formulating measures to address the existing issues, it is important to implement them in a holistic manner. In isolation, their intent may fall by the wayside, but together, they can successfully create poor cities.
- ★ Therefore, an overall strategy for crafting affordable cities must disincentivise the growth of mega cities and adopt a decentralised approach to urbanisation. Unless India takes up urban planning with the seriousness it deserves, the future of some of the mega projects of the incumbent government such as the 'Smart Cities Mission', 'Swachh Bharat Mission', 'HRIDAY' for heritage cities, 'Housing for All by 2022' and 'AMRUT' are bound to suffer from the same consequences.

17. Though, India declared itself ODF on 2nd October 2019, but there are still miles to go to sustain the ODF status. Discuss.

A: On the occasion of the 150th birth anniversary of Mahatma Gandhi, Prime Minister Narendra Modi has declared the country open defecation-free (ODF), claiming success for the government's ini-

tiative under which every household now apparently has access to a toilet.

- ★ In the past four years, India has built 100 million toilets in about 0.6 million villages, and another 6.3 million in its cities. By all accounts, it is an incredible feat. As per a 2019 report of the Joint Monitoring Programme (JMP) for water supply and sanitation, of UNICEF and the World Health Organization (WHO), between 2000 and 2014, open defecation decreased by some 3 percentage points a year, while between 2015 and 2019 it reduced at over 12 percentage points a year.

But is India really open defecation free? Several ground report found that several people in villages across India, including the national capital, were still forced to defecate in open due to lack of toilets, especially in impoverished colonies. < The Union Jal Shakti Ministry's Department of Drinking Water and Sanitation (DDWS), launched a 10-year national rural sanitation strategy to sustain India's 100 per cent Open Defecation Free (ODF) status.

- ★ The spirit of bidding farewell to open defecation as a gift to Gandhi deserves accolades. But we must not forget that there are still miles to go. India needs to have a pack of sustainable actions that focuses on reducing open defecation and sustain the ODF tag and also ensure that the pollution is checked. Further, most importantly, it should follow Gandhi's path of ahimsa and compassion.

18. What is 'principle of ethical egoism'? Do you agree with the statement that 'in general, nature of human society, if not properly regulated, would result in a chaos and a state of war? Why 'conflict' becomes a more natural outcome than 'cooperation' in modern societies?

A: Ethical egoism is a normative theory, which states that moral agents ought to do what is in their own self-interest. Ethical egoism holds that actions whose consequences will benefit the doer can be considered ethical.

- ★ Ethical egoism does not, however, require moral agents to harm the interests and well-being of others when making moral deliberation.

- ★ The human beings are both rational and social human being, but due to negative emotions the analytical and rational power of decision making reduces.
- ★ Thus rules and regulations are needed to govern the human beings otherwise they may end up in violating the basic human rights.
- ★ The self-interest should not lead to harming the interests of others. There should be disciplined freedom.
- ★ The dichotomy between cooperation and conflict in the present era is visible. In the present era ending up in conflict has become more difficult than following the path of cooperation.
- ★ Cooperation allows people and groups to work together to achieve a common goal or derive mutual benefits. Cooperation allows participants to exchange valuable information that helps both sides improve their knowledge bases and work in a time- and resource-efficient manner. But cooperation requires mutual understanding which due to less degree of cultural similarity within and between the same societies is leading to development of intolerance.
- ★ Further cooperation requires rational decision making rather than emotional and abstract decision making and the capability of that is decreasing among people.

19. You are professor as well as a social activist. There is an educated and well employed couple in your vicinity who often fight on their personal issues. One day they started fighting as usual, starting from arguments, turning loud, slamming doors and finally the male partner resorting to physical violence, the cry of wife and children started coming out.

People come out, but do not dare to go to them citing that it is their personal matter, so any interference would be unethical and uncalled for. Answer the following questions based on the above case:

- (a) Would you agree to be a bystander on the advice of the people that it is a personal matter of the couple? Give reasons
- (b) Suppose you go to the flat of the couple and enquire what is wrong but the male member

insists that they be left on their own as it is their personal matter and you should mind your own business. What would be your reaction?

- (c) Can police help in curbing this social malady by using legal authority and provisions?
- (d) What is your moral and ethical locus standi on intervention of neighbours to stop the domestic violence?

A: a) No, the crowd is falling into an argument, which is convenient but unethical. Small brawls between male and female counterparts in a family are indispensable and even add sweetness in relationship as made out in many popular fictions. But when things go out of proportion leading to violence and various abuses, the couples cross their limits to privacy, disturb and destabilise their neighbours and also cross the limits defining humane and civilised norms. The issue becomes social and ethical. And I would intervene to stop it from becoming uglier.

- b) Knowing that such bizarre argument would anger me and create a personal outrage, I would deliberately keep cool and calm because the purpose is not "winning the argument" but "winning the case." Secondly, I would try to cool down the person involved in the case and help them out with atleast a temporary reconciliation through various possible means- love and assurances, promises and offering help which they need.
- c) There is always a limit to effectiveness of "law and order" or "policing" in such cases. Such cases need proper ameliorative steps from elders in the family, civil society and counselling and psychiatric treatment. Also education and awareness about various "pressing situations" in family life and "how to tackle them" would go a long way. It is important to know that "first best option" may not be always available in life and so we must reconcile with the "second best options", based on reconciliation and adjustment. That is what pragmatic or relative ethics suggest.
- d) Normally, domestic issues are best left with the couples if it is not violent and abusive. The private space of couples is sacrosanct.

But the sanctity of private space is violated if things turn loud, violent and abusive. This becomes a "social issue" or "human issue".

- ★ Even if the couple is not ready to accept social intervention - consciously or unconsciously unaware or indifferent- the neighbourhood should come forward to stop domestic violence by legitimate and human means.
- ★ Vigilantism should be avoided at any cost and in "out of control" situations, help of police and law and order should be sought out immediately. However, in the long run family elders, civil society and counselling would be more effective.

20. You are a civil servant and posted at a place with multi-cultural and multi-identity population with one dominant majority group and a big minority group. There arose a dispute on setting up statues of their respective icons in the area, cross claiming the same space. Any casual or delay will cost huge as past history indicates of big conflicts.

Election is round the corner so different interest groups are eyeing to reap the benefits and has tensed the environment. Answer the following questions:

- (a) What preventive steps would you take to stop flaring up of a brewing dispute?
- (b) If the dispute flares up and turns violent, what would be your quick measures to contain it?
- (c) How do you react when failure to pre-empt and contain such a situation leads to your suspension?

A: a) I would take the information about such a dispute seriously and promptly without losing time will call all the leaders of the groups to amicably find a solution. If they are adamant to move for amicable solution then I will take

the disputed land into administration's custody till a solution is reached through negotiation or a law suit, and meanwhile I would assure the leaders of the respective communities to provide them suitable space for their icons if it would be legally tenable or failing which even by commercial procurement of land.

Even then if they continue agitation and there are chances of violence (intelligence information), I would detain the leaders who are known alongwith miscreants in the region. I would also implement Art 144.

- b) In a flared up situation, I would act from mild use to increased use of state power, especially from water cannons to tear gas or to fire in air or even firing at the lower parts of body if the need arises for deterrence.

In such situations permissible harm for greater public cause (to save life and property) needs to be resorted. While doing these, I would strictly ensure that agitators are controlled, not killed

- c) It is an imaginative outcome whose possibility could not be ruled out. Generally each of the steps taken would be recorded in writing and also I would apprise the people around in the administration as well as peaceful agitators about the actions being taken in a SOS situation. That may help me in proving that I followed due process of law and acted in careful manner, trying to save a situation rather than being rash and vengeful.

Even if I am suspended, my right and transparent approach would eventually absolve me proving my right intention for establishing peace and security.

RIGHT STRATEGY TO
CRACK CIVILS
IN FIRST ATTEMPT



ABHYASA



ANALOG IAS
Mr. Srikanth Vinnakota
Director of Analog IAS

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