

- Which of the following is a Parliamentary Committee relating to delegation of power to make rules and regulations to the Executive?
 - (a) Committee on Executive Legislation
 - (b) Committee on Subordinate Legislation
 - (c) Committee on Administrative Legislation
 - (d) Committee on Delegated Legislation
 - (e) None of the above/More than one of the above
- 2 Article 300 of the Indian Constitution deals with:
 - (a) suits and proceedings
 - (b) government contracts
 - (c) Attorney General
 - (d) restrictions on trade and commerce
 - (e) None of the above/More than one of the above
- 3 Judicial process in India is based on:
 - (a) the Constitution
 - (b) the due process of routine law
 - (c) conventions
 - (d) the procedure established by law
 - (e) None of the above/More than one of the above
- The first 'Lokayukta' was established in which of the following States?
 - (a) Odisha
- (b) Kerala
- (c) Maharashtra
- (d) Punjab
- (e) None of the above/More than one of the above
- **5** Which of the following posts was held by A. S. Anand in the late 1990s?
 - (a) Comptroller and Auditor General
 - (b) Chief Justice of India
 - (c) Chief Vigilance Commissioner
 - (d) Attorney General
 - (e) None of the above/More than one of the above
- Which of the following is *not* a part of the Eleventh Schedule of the Constitution?
 - (a) Libraries
- **(b)** Fuel and Fodder
- (c) Rural Sports
- (d) Technical Training
- (e) None of the above/More than one of the above
- How many (number) 'Demands for Grants' are put before the Parliament as a part of the Annual Budget in pursuance to Article 113 of the Constitution?
 - (a) 98
- **(b)** 96
- (c) 104
- (d) 109
- (e) None of the above/More than one of the above
- 8 In which year was the 'National Extension Service' launched?
 - (a) 1953
- **(b)** 1957
- (c) 1960
- (d) 1972
- (e) None of the above/More than one of the above

- **9** The members of a State Legislative Council are *not* chosen by which of the following categories of persons?
 - (a) Members of the local bodies/Panchayats
 - (b) Teachers
 - (c) Graduates
 - (d) Industrialists
 - (e) None of the above/More than one of the above
- 10 The 'split system' in the Indian administration relates to:
 - (a) Audit/Accounts
 - (b) Union/States
 - (c) Policy/Implementation
 - (d) All India Services/Central Services
 - (e) None of the above/More than one of the above
- With reference to the Finance Commission of India, consider the following statements:
 - 1. The Finance Commission is a statutory body.
 - **2.** The Finance Commission was set up under Article 280 of the Constitution.
 - **3.** The recommendations made by the Finance Commission are only advisory in nature.
 - 4. The first Finance Commission was set up in 1950.

Which of the above statements are correct?

- (a) 1 and 4 only
- (b) 3 and 4 only
- (c) 2 and 3 only
- (d) 2 and 4 only
- (e) None of the above/More than one of the above
- With reference to the Bare Necessities Index (BNI), consider the following statements:
 - **1.** The economic survey has come up with the Bare Necessities Index at rural and urban levels.
 - **2.** The BNI has been created for all states for 2018 only.
 - 3. The BNI is based on 26 indicators
 - 4. The BNI consists of six dimensions.

Which of the above statements are correct?

- (a) 1 and 3 only
- **(b)** 2 and 3 only
- (c) 1 and 4 only
- (d) 2 and 4 only
- (e) None of the above/More than one of the above
- Which type of banks is proposed to be established for agriculture and rural development in Bihar?
 - (a) Krishi Vigyan Banks
- (b) Krishi Yantra Banks
- (c) Krishi Vikas Banks
- (d) Krishi Utthaan Banks
- (e) None of the above/More than one of the above
- The value of Human Development Index of Bihar in 2019 was:
 - (a) 0.641 (b)
 - **(b)** 0.613
- (c) 0.596
- (d) 0.574
- (e) None of the above/More than one of the above

The fiscal deficit in Bihar during 2021-22 is estimated as:	24 Match List-I with List-II:
(a) ₹ 22,511 crores (b) ₹ 27,617 crores	List-I List-II
(c) ₹ 20,011 crores (d) ₹ 21,543 crores (e) None of the above/More than one of the above	(A) Sarkaria Commission (1) To Review the Methodology of Measurement of Poverty
Video Under Digital Bihar Programme, which students will receive computer education and training from 2021-22 onwards?	(B) C. Rangarajan (2) Infrastructure Financing Committee
(a) All students of Class V and above(b) All students of Class VI and above	(C) Parekh Committee (3) Central-State Relationship
(c) All students of Class VII and above (d) All students of Class VIII and above	(D) Narasimham Committee (4) Banking Sector Reforms
(e) None of the above/More than one of the above According to the 15th Finance Commission's recommendations, how much share will Bihar receive in divisible	Choose the correct answer from the options given below.
pool of Central taxes from 2021-26?	A B C D (a) 3 1 2 4
 (a) 4.12 percent (b) 4.23 percent (c) 4.89 percent (d) 4.06 percent (e) None of the above/More than one of the above 	(b) 2 1 3 4 (c) 4 3 2 1 (d) 1 2 4 3
Who among the following is <i>not</i> a member of the 15 th Finance Commission?	(e) None of the above/More than one of the above
(a) Ashok Kumar Lahiri (b) Sudipto Mundle (c) Ramesh Chand (d) Ajay Narayan Jha (e) None of the above/More than one of the above	 Consider the following States: Punjab Uttar Pradesh Andhra Pradesh West Bengal
In the recent Union Budget, the FM has increased the Foreign Direct Investment (FDI) limit in the insurance sector from the existing one to: (a) 50% (b) 62% (c) 74% (d) 100% (e) None of the above/More than one of the above	Choose the correct sequence of the above in ascending order as rice-producing States in India. (a) West Bengal, Punjab, Andhra Pradesh, Uttar Pradesh (b) West Bengal, Uttar Pradesh, Andhra Pradesh, Punjal (c) Andhra Pradesh, Uttar Pradesh, West Bengal, Punjal (d) Andhra Pradesh, Punjab, Uttar Pradesh, West Bengal (e) None of the above/More than one of the above
As per the Union Budget, 2021, the fiscal deficit is estimated to be how much percent of the GDP in 2021-22? (a) 8.8% (b) 7.8% (c) 7.6% (d) 6.8% (e) None of the above/More than one of the above	(a) Quit India Resolution (b) Arrival of the Cripps Mission (c) Arrival of Lord Wavell as the Governor General (d) Arrival of the Cabinet Mission
(e) None of the above/More than one of the above (a) growth in national income at current prices (b) growth in per capita real income from year to year (c) growth in savings ratio (d) improvement in balance of payments position (e) None of the above/More than one of the above	(e) None of the above/More than one of the above 27 Who was the President of the Lahore Session of the Indian National Congress held in 1929 AD? (a) Vallabhbhai Patel (b) Motilal Nehru (c) Jawaharlal Nehru (d) Rajendra Prasad (e) None of the above/More than one of the above
(c) 1 None of the above/More than one of the above (22) The second phase of the Swachh Bharat Mission (Grameen) is to be implemented during which time period? (a) 2020-21 to 2022-23 (b) 2020-21 to 2023-24 (c) 2020-21 to 2024-25 (d) 2020-21 to 2025-26	Who is <i>not</i> related to the Champaran Satyagraha of 1917 AD? (a) J. B. Kripalani (b) Raj Kumar Shukla (c) Rajendra Prasad (d) Ram Manohar Lohia (e) None of the above/More than one of the above
(e) None of the above/More than one of the above Who among the following is <i>not</i> a part of the National Development Council?	29 One of the leaders of the Revolt of 1857 AD, Kunwa Singh was related to which place? (a) Gwalior (b) Jagdishpur (c) Jhansi (d) Meerut
(a) The Secretary of the NITI Aayog(b) The Secretary of the Planning and Programme	(e) None of the above/More than one of the above 30 During Ouit India Movement, who among the

Implementation Ministry

(c) The Vice Chairman of the NITI Aayog

(d) The Chairman of the Finance Commission of India

(e) None of the above/More than one of the above

30 During Quit India Movement, who among the

(a) Sachchidananda Sinha (b) Jayaprakash Narayan

(e) None of the above/More than one of the above

(d) Rafi Ahmed Kidwai

following escaped from the Hazaribagh Jail?

(c) Jagjivan Ram

52 Select the incorrect statement out of the following.

(b) Polycarbonate is used for making CDs.

because it absorbs moisture.

(a) Cotton is suitable for use as clothing in summer

Who was the President of Gaya Session of the Indian National Congress held in 1922 AD? (a) Chittaranjan Das (b) Hakim Ajmal Khan (c) Mahatma Gandhi (d) Maulana Abul Kalam Azad (e) None of the above/More than one of the above What portfolio Rajendra Prasad held in the Interim Government established in 1946 AD? (a) Finance (b) Defence (c) Home (d) Food and Agriculture (e) None of the above/More than one of the above	A clock is set right at 8 a.m. The clock gains 10 minutes in 24 hours. What will be the true time when the clock indicates 1 p.m. on the following day? (a) 12 noon (b) 48 minutes past 12 noon (c) 1 p.m. (d) 2 p.m. (e) None of the above/More than one of the above 44 The value of the continued fraction $2 - \frac{1}{2 - \frac{1}{1 - $
(a) Germany (b) United States of America (c) France (d) England (e) None of the above/More than one of the above Who established the Servants of India Society in 1905 AD? (a) Surendranath Banerjee (b) Bipin Chandra Pal (c) Mahadev Govind Ranade (d) Correl Wrights College.	 (a) 1 (b) -1 (c) 2 (d) 0 (e) None of the above/More than one of the above 45 How many numbers between 200 and 600 are divisible by 4, 5 and 6? (a) 4 (b) 5 (c) 6 (d) 8 (e) None of the above/More than one of the above 46 If n is any positive integer, then (3⁴ⁿ - 4³ⁿ) is always divisible by:
 (d) Gopal Krishna Gokhale (e) None of the above/More than one of the above 35 Who has written the book, Unhappy India? (a) Bal Gangadhar Tilak (b) Annie Besant (c) Lala Lajpat Rai (d) A. O. Hume (e) None of the above/More than one of the above 36 Who participated in all the three Round Table Conferences? 	(a) 7 (b) 17 (c) 112 (d) 145 (e) None of the above/More than one of the above The difference between the squares of two numbers is 256000 and the sum of the numbers is 1000. The numbers are: (a) 600, 400 (b) 640, 360 (c) 628, 372 (d) 650, 350 (e) None of the above/More than one of the above
 (a) Maulana Abul Kalam Azad (b) Madan Mohan Malaviya (c) B. R. Ambedkar (d) Mahatma Gandhi (e) None of the above/More than one of the above Who established Indian Association in 1876 AD? (a) Surendranath Banerjee (b) Chittaranjan Das (c) W. C. Banerjee (d) Aurobindo Ghosh (e) None of the above/More than one of the above 	 The value of log √2 (32) is: (a) 5/2 (b) 5 (c) 10 (d) 1/10 (e) None of the above/More than one of the above By selling 45 lemons for ₹40, a man loses 20%. How many should he sell for ₹24 to gain 20% in the transaction?
(a) In which country was the honorific 'Netaji' applied to the name of Subhas Chandra Bose? (a) India (b) Italy (c) Germany (d) Japan (e) None of the above/More than one of the above Who is related to 'Chittagong Armoury Raid'? (a) Rash Behari Bose (b) Chandra Shekhar Azad (c) Batukeshwar Dutt (d) Surya Sen	 (a) 16 (b) 18 (c) 20 (d) 22 (e) None of the above/More than one of the above 50 A train 110 m long is travelling at a speed of 58 kmph. The time in which it will pass a passer-by walking at 4 kmph in the same direction is: (a) 6 second (b) 7 1/2 seconds
(e) None of the above/More than one of the above 10 In Anandamath of Bankim Chandra Chatterjee, which revolt is mentioned? (a) Sannyasi (b) Kuka (c) Santhal (d) Neel (Indigo) (e) None of the above/More than one of the above 11 The perimeter of a rhombus is 52 m and its shorter diagonal is 10 m. The length of the longer diagonal is:	 (c) 7¹/₃ seconds (d) 8 seconds (e) None of the above/More than one of the above 51 Which among the following is an incorrect option? (a) Atom is electrically neutral due to presence of protons and electrons inside the nucleus. (b) Electrons are negatively charged and have negligible mass. (c) Atomic number is the number of protons in an atom of an element.
(a) 12 m (b) 18 m (c) 10 m (d) 24 m (e) None of the above/More than one of the above [42] In a 100 m race, A runs at a speed of 8 kmph. If A gives B a start of 4 m and still heats him by 15 seconds, what is	of an element. (d) Isotopes are useful as nuclear fuel, in medical field, in carbon dating, etc. (e) None of the above/More than one of the above

the speed of *B*?

(a) 5 kmph (b) 5.76 kmph (c) 6 kmph (d) 6.34 kmph

(e) None of the above/More than one of the above

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- (c) Acrylic is also called artificial silk as it is prepared from cotton but has shine like silk.
- (d) Teflon is used for coating non-stick kitchenware.
- (e) None of the above/More than one of the above

53 Which of the following statements about graphite and diamond is true?

- (a) They have the same crystal structure.
- **(b)** They have the same hardness.
- (c) They have the same electrical conductivity.
- (d) They can undergo the same chemical reaction.
- (e) None of the above/More than one of the above

54 Which of the following is the major constituent of the liquefied petroleum gas?

- (a) Methane (b) Ethane (c) Propane (d) Butane
- (e) None of the above/More than one of the above

55 Water passes from the soil into the roots by a physical process called:

- (a) diffusion
- (b) transpiration
- (c) absorption
- (d) osmosis
- (e) None of the above/More than one of the above

56 Biodegradable wastes can usually be converted into useful substance with the help of:

- (a) bacteria
- (b) viruses
- (c) nuclear proteins
- (d) radioactive substances
- (e) None of the above/More than one of the above

57 In the night time, it is advised not to sleep under trees because:

- (a) they liberate less amount of oxygen
- (b) they liberate harmful gases in night
- (c) they liberate carbon dioxide in night
- (d) they liberate carbon monoxide in night
- (e) None of the above/More than one of the above

\58) Insectivorous plants grow in soil deficient in:

- (a) water
- **(b)** magnesium
- (c) nitrogen
- (d) calcium
- (e) None of the above/More than one of the above

59 Stem of a plant helps in distributing food to all parts of the plant. It also helps in:

- (a) storing the food
- **(b)** shaping the plant
- (c) respiration
- (d) photosynthesis
- (e) None of the above/More than one of the above

60 In transfusion, blood must be compatible not only in blood type but also in:

- (a) Rh factor
- (b) the number of white cells
- (c) the number of red cells
- (e) None of the above/More than one of the above

61 Pituitary gland is located in:

- (a)intestine
- (b) liver
- (c) kidney
- (d) brain
- (e) None of the above/More than one of the above

62 Which of the following rays/waves are used to know the growth of the foetus in the womb?

- (a) X-rays
- (b) Microwaves
- (c) Ultrasonic waves
- (d) Ultraviolet rays
- (e) None of the above/More than one of the above

63 The universal acceptor blood group is:

- **(b)** B (a) A
- (c) AB
 - (d) O
- (e) None of the above/More than one of the above

64 Pneumonia is an infection of:

- (a) nerve
 - (b) blood
- (c) skin (d) lungs
- (e) None of the above/More than one of the above

65 A person standing in front of a mirror finds his image larger than himself. This implies that the mirror is:

(c) convex

- (a) concave (b) plane
- (d) cylindrical with bulging side outwards
- (e) None of the above/More than one of the above

66 A fan produces a feeling of comfort during the hot weather because:

- (a) fan supplies cool air
- (b) our body radiates more heat into air
- (c) conductivity of air increases
- (d) our perspiration evaporates rapidly
- (e) None of the above/More than one of the above

67 Twinkling of stars in clear sky during night time can be explained with:

- (a) refraction of light
- (b) reflection of light
- (c) polarization of light
- (d) interference of light
- (e) None of the above/More than one of the above

68 Hydrogen bomb is based on the principle of:

- (a) controlled fusion reaction
- (b) uncontrolled fusion reaction
- (c) controlled fission reaction
- (d) uncontrolled fission reaction
- (e) None of the above/More than one of the above

69 Food gets cooked faster in a pressure cooker because:

- (a) water starts boiling at low temperature due to high
- (b) water starts boiling at high temperature due to high pressure
- (c) water starts boiling at low temperature due to low pressure
- (d) water starts boiling at high temperature due to low pressure
- (e) None of the above/More than one of the above

70 If the doors of a refrigerator are left open for few hours, then the room temperature will:

- (a) decrease
- (b) increase
- (c) remain the same
- (d) decrease only in the area in the vicinity of the refrigerator
- (e) None of the above/More than one of the above

7 A piece of ice is floating in a beaker containing water up to its brim. When whole of the ice melts:

- (a) the water will spill on the floor
- (b) the level of water will come down in the beaker
- (c) the level of water will first fall and then it will spill out of the beaker
- (d) the water level will not change
- (e) None of the above/More than one of the above

72 Which of the following is *not* correctly matched?

- (a) Voltmeter Potential difference
- (b) Ammeter Electric current
- (c) Potentiometer Electromotive force
- (d) Galvanometer Electric resistance
- (e) None of the above/More than one of the above

73 If a feather, a rubber ball, and a wooden ball are	Who was the foreign Chief Guest in the Republic Day
falling freely simultaneously from the same height in	parade in 2021?
vacuum, then:	(a) Boris Johnson (b) Vladimir Putin
(a) the feather will reach at the ground first	(c) Barack Obama (d) Sheikh Hasina
(b) the rubber ball will reach at the ground first	(e) None of the above/More than one of the above
(c) the wooden ball will reach at the ground first	85 Who is the Permanent Representative of India in
(d) all the three will reach at the ground together	the UN?
(e) None of the above/More than one of the above	(a) Tarun Bajaj (b) T. S. Tirumurti
When a soap film on the water is seen in the daytime, it	(c) Ajay Seth (d) Harsh Vardhan Shringla
shows beautiful colours. This phenomenon is due to:	(e) None of the above/More than one of the above
(a) diffraction of light (b) refraction of light	
(c) polarization of light (d) interference of light	86 According to 2011 Census, which district of Bihar has more women than men?
(e) None of the above/More than one of the above	
75 The mass number of a nucleus is:	(a) Gopalganj (b) Begusarai (c) Patna (d) Siwan (e) None of the above/More than one of the above
(a) the sum of the numbers of neutrons and protons	
(b) the total mass of neutrons and protons	\\\ 87\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
(c) always more than the atomic weight	Legislative Council convened?
(d) always less than its atomic number	(a) 1911 (b) 1913 (c) 1914 (d) 1919
(e) None of the above/More than one of the above	(e) None of the above/More than one of the above
76 Which of the following is the main ingredient of	88 Rashmi Kumari from Bihar is a/an:
cement?	(a) international cricketer
(a) Limestone (b) Silica clay	(b) international carrom champion
(c) Gypsum (d) Ash	(c) football player
(e) None of the above/More than one of the above	(d) chess player
	(e) None of the above/More than one of the above
(a) the number of protons (b) the mass number	89 The 'Digital India Award, 2020' was given to the Bihar
(c) the number of electrons (d) the atomic number	Government for:
(e) None of the above/More than one of the above	(a) establishing technical institutes in Bihar
	(b) bringing IT revolution in Bihar
78 The temperature point at which solid, liquid and	(c) facilitating e-administration in Bihar
gaseous states may stay together is known as:	(d) providing services to people stranded outside Bihar
(a) boiling point (b) melting point	during COVID-19 lockdown
(c) freezing point (d) triple point	(e) None of the above/More than one of the above
(e) None of the above/More than one of the above	90 How many seats are reserved for the SC candidates in
79 The most important ore of aluminium is:	the Bihar Legislative Assembly?
(a) bauxite (b) calamine	(a) 38 (b) 40 (c) 44 (d) 46
(c) calcite (d) galena	(e) None of the above/More than one of the above
(e) None of the above/More than one of the above	91 In which year was 50% reservation to women in
80 Which among the following solutions has pH value	Panchayat bodies provided in Bihar?
more than 7?	(a) 2005 (b) 2006 (c) 2009 (d) 2014
(a) Buffer solution (b) Basic solution	(e) None of the above/More than one of the above
(c) Acidic solution (d) Neutral solution	92 In which year was Bihar divided to create Jharkhand?
(e) None of the above/More than one of the above	(a) 2000 (b) 2001 (c) 2004 (d) 2005
81 On which date did India begin its two-year term as a	(e) None of the above/More than one of the above
Non-Permanent Member of the UN Security Council?	93 The new ministry proposed in the Bihar Budget for
(a) 1 October, 2020 (b) 1 November, 2020	the year 2021-22 focuses on:
(c) 1 January, 2021 (d) 1 July, 2021	(a) child care
(e) None of the above/More than one of the above	(b) women empowerment
	(c) infrastructure development
Which country exported Sputnik V COVID vaccine to	(d) skill and entrepreneurship development
India?	(e) None of the above/More than one of the above
(a) America (b) Russia (c) UK (d) France	
(c) UK (d) France (e) None of the above/More than one of the above	194 How many departments are covered under the Human
	Development Sub-Mission in Bihar? (a) 6 (b) 7 (c) 8 (d) 10
Joe Biden has assumed office as the:	(a) 6 (b) 7 (c) 8 (d) 10 (e) None of the above/More than one of the above
(a) 46 th President of America	
(b) 47 th President of America	95 From which district of Bihar was the Garib Kalyan
(c) 48 th President of America	Rojgar Abhiyan launched by the Prime Minister
(d) 49 th President of America	in 2020?

(a) Patna

(b) Banka

(e) None of the above/More than one of the above

(c) Madhepura (d) Khagaria (e) None of the above/More than one of the above	On which date did India take over the Chairmanship of the UN Security Council?
96 Covishield, the COVID vaccine of India which is	(a) 1 January, 2021 (b) 1 March, 2021
approved by WHO, is manufactured by:	(c) 1 April, 2021 (d) 1 August, 2021
(a) Serum Institute (b) Bharat Biotech	(e) None of the above/More than one of the above
(c) Panacea Biotec (d) Zydus Cadila (e) None of the above/More than one of the above	When the US evacuated its troops from Afghanistan, who was the last American soldier to leave Kabul?
97 What is the length of the Atal Tunnel, Rohtang,	(a) General Frank McKenzie
Himachal Pradesh? (a) 8.02 km (b) 9.02 km	(b) David Brunnstrom
(c) 10.02 km (d) 11.02 km	(c) Major General Chris Donahue
(e) None of the above/More than one of the above	(d) Ross Wilson
98 In which year was the Railway Budget merged with	(e) None of the above/More than one of the above
the General Budget in India? (a) 2015 (b) 2016 (c) 2017 (d) 2018	Which French company supplied Rafale fighter jets to
(a) 2015 (b) 2016 (c) 2017 (d) 2018 (e) None of the above/More than one of the above	India?
99 What is the purpose of the Citizenship Amendment	(a) LH Aviation(b) Dassault Aviation(c) Issoire Aviation(d) Humbert Aviation
Act, 2019?	(e) None of the above/More than one of the above
(a) To remove illegal Bangladeshi immigrants	109 When did the clash between the soldiers of India and
(b) To identify genuine Indian citizens	China take place in the Galwan Valley?
(c) To check border infiltration by foreigners(d) To grant citizenship to persecuted minority groups of	(a) December 2019 (b) April 2019
Afghanistan, Bangladesh, and Pakistan	(c) January 2020 (d) June 2020
(e) None of the above/More than one of the above	(e) None of the above/More than one of the above
The Central Vista Project refers to the:	\frac{110}{10} In which country, the Pegasus spyware has been developed?
(a) construction of an IT park in New Delhi(b) construction of a new Parliament, the Prime Minister,	(a) Israel (b) Brazil
and Vice President's residences along with a common	(c) Russia (d) China
Central Secretariat	(e) None of the above/More than one of the above
(c) construction of a commercial area in New Delhi	The Forward Bloc was founded by:
(d) construction of residences for all ministers(e) None of the above/More than one of the above	(a) Sardarsinhji Rana (b) Subhas Chandra Bose (c) Jayaprakash Narayan (d) Lakshmi Sahgal
101 Which Union Territory formed after division of Jammu	(e) None of the above/More than one of the above
and Kashmir State does <i>not</i> have a legislature of its own?	Who was the Finance Minister in the Interim Government?
(a) Jammu (b) Kashmir	(a) Liaquat Ali Khan (b) Sardar Patel
(c) Ladakh (d) Both Kashmir and Ladakh (e) None of the above/More than one of the above	(c) M. A. Jinnah (d) Jawaharlal Nehru
102 Who is the Indian footballer who won the All India	(e) None of the above/More than one of the above
Football Federation(AIFF) Men's Player of the Year	Who took the lead of the Santhal Rebellion of 1855 AD?
Award for 2021?	(a) Sidhu and Kanhu(b) Budhu Bhagat and Teja Bhagat
(a) Suresh Singh Wangjam (b) Sandesh Jhingan	(c) Mulu Manek and Jodha Manek
(c) Aniket Jadhav (d) Arindam Bhattacharya (e) None of the above/More than one of the above	(d) Madari Pasi and Sahadev
103 On which date was the Pradhan Mantri Kisan	(e) None of the above/More than one of the above
Samman Nidhi Yojana started?	Who invited Gandhiji to come to Champaran?
(a) 1 November, 2017 (b) 1 January, 2018	(a) Raj Kumar Shukla (b) Rajendra Prasad (c) Jayaprakash Narayan (d) Krishna Sahay
(c) 1 February, 2019 (d) 1 April, 2020 (e) None of the above/More than one of the above	(e) None of the above/More than one of the above
104 In which game was the Gold Medal for India won in	Who had attained enlightenment in Bodh Gaya?
the Olympics, 2021?	(a) Mahavira Swami (b) Gautama Buddha
(a) Gymnastics (b) Javelin Throw	(c) Simandhar Swami (d) Parshvanath Swami
(c) Boxing (d) Shooting	(e) None of the above/More than one of the above
(e) None of the above/More than one of the above	Who established a branch of Anushilan Samiti in
Tolars Paralympies 20212	Patna in 1913 AD? (a) Ramananda Sinha (b) Satish Jha
Tokyo Paralympics, 2021? (a) 19 (b) 21 (c) 22 (d) 18	(c) Sachindra Nath Sanyal (d) Bipin Jha
(e) None of the above/More than one of the above	(e) None of the above/More than one of the above

\141) The theory of continental drift was developed by:

(b) A. Wegener

(a) J. J. Wilson

Who had formed the Bihar Socialist Party in 1931 AD? 130 Who started the journal, Bahishkrita Bharat? (a) Phulan Chand Tiwari and Rajendra Prasad (a) Jyotiba Phule (b) Karsandas Mulji (b) Phulan Prasad Varma and Jayaprakash Narayan (c) Bal Gangadhar Tilak (d) Babasaheb Ambedkar (c) Raj Kumar Shukla and Swami Agnivesh (e) None of the above/More than one of the above (d) Swami Sahajananda and Swami Yogananda 131 Pattiseema Project is associated with the integration (e) None of the above/More than one of the above of which of the following rivers? Where is Sher Shah's tomb located? (a) Krishna and Kaveri (b) Krishna and Godavari (a) Sasaram (b) Maner (c) Godavari and Mahanadi (d) Ganga and Brahmaputra (c) Sitamarhi (d) Pavapuri (e) None of the above/More than one of the above (e) None of the above/More than one of the above 132 Which of the following statements are concerned with 119 Which one of the following Harappan sites is in eskers and drumlins? Gujarat? 1. Eskers are ridges of crudely bedded gravels and sands. (a) Lothal (b) Dabarkot 2. Drumlins are constituted mostly of boulder and clay. (c) Kalibangan (d) Rakhigarhi 3. Basket of eggs topography is the characteristic of terrains (e) None of the above/More than one of the above 120 Who was the founder of the Chola Dynasty? 4. While eskers are built by glacier streams, drumlins (a) Vijayalaya (b) Karikala result from glacier action. (c) Aditya I (d) Rajaraja I Choose the correct answer from the options given below. (e) None of the above/More than one of the above (a) 1, 2 and 3 only **(b)** 1, 2 and 4 only (c) 3 and 4 only (d) 1 and 2 only Who was the President of the First Buddhist Council? (e) None of the above/More than one of the above (a) Vasumitra (b) Mahakashyapa (c) Sangharaksha (d) Parshvaka \lambda Combustion of underground coal occurs in the state of: (e) None of the above/More than one of the above (a) West Bengal (b) Bihar (c) Jharkhand (d) Odisha Who wrote the book, Kiratarjuniya? (e) None of the above/More than one of the above (a) Bhatti (b) Shudraka (c) Kalidasa (d) Bharavi (e) None of the above/More than one of the above (a) Rohtas (b) Patna (c) Gaya (d) Saran 123 The Qutub Minar was completed by: (e) None of the above/More than one of the above (a) Iltutmish (b) Outb-ud-din Aibak 135 The confluence of the rivers Son and Ganga is located (c) Ulugh Khan (d) Raziya Sultana in which district of Bihar? (e) None of the above/More than one of the above (a) Buxar (b) Patna (c) Bhojpur (d) Nalanda 124 Who was the founder of the Vijayanagara Empire? (e) None of the above/More than one of the above (a) Deva Raya I (b) Krishnadeva Raya 136 The rivers Damodar, Koel and Subarnarekha originate (c) Harihara-Bukka (d) Vira Narasimha Raya from which of the following? (e) None of the above/More than one of the above (a) Deccan Plateau (b) Central Highland 125 During the time of which Mughal Emperor did Sir (c) Chota Nagpur Plateau (d) Meghalaya Plateau Thomas Roe come to India? (e) None of the above/More than one of the above (a) Babur (b) Akbar 137 Which is the first Ramsar Site in Bihar? (c) Jahangir (d) Shah Jahan (a) Kaimur Range (b) Kharagpur Lake (e) None of the above/More than one of the above (c) Kanwar Lake (d) Rajgir Hill 126 Ain-i-Akbari was written by: (e) None of the above/More than one of the above (a) Abdul Qadir **(b)** Akbar 138 Brahmayoni Hill is located in which district of Bihar? (c) Khwaja Nizamuddin (d) Abul Fazl (a) Gaya (b) Rohtas (c) Nalanda (d) Nawada (e) None of the above/More than one of the above (e) None of the above/More than one of the above 127 The Ryotwari system was first implemented in: 139 Which agroclimatic region of Bihar has the highest (a) Gujarat (b) Madras number of districts? (d) Orissa (c) Bombay (a) Northern East **(b)** Northern West (e) None of the above/More than one of the above (c) Southern East (d) Southern West 128 The Uprising of 1857 was described as the 'First (e) None of the above/More than one of the above Indian War of Independence' by: 140 Geodesy is the science that deals with: (a) V. D. Savarkar (b) Bal Gangadhar Tilak (a) dating of terrestrial rock (c) R. C. Majumdar (d) Dadabhai Naoroji (b) measurement of dimension of the earth (e) None of the above/More than one of the above (c) measurement of elevation and depression of the earth 129 The first woman President of the Indian National (d) recording of the changes undergone by the crust Congress was: (e) None of the above/More than one of the above (a) Sarojini Naidu (b) Annie Besant

(c) Kasturba Gandhi

(d) Aruna Asaf Ali

(e) None of the above/More than one of the above

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- (c) Du Toit
- (d) H. Hess
- (e) None of the above/More than one of the above

142 Sunda Trench lies parallel to the island of:

- (b) Maldives (c) Sumatra (d) Mauritius (a) Java
- (e) None of the above/More than one of the above

143 An effective Coriolis force results from:

- (a) solar system
- **(b)** earth rotation
- (c) interior of the earth (d) Colorado and Gulf Streams
- (e) None of the above/More than one of the above

Which of the following countries does not have a land border with the Dead Sea?

- (a) Lebanon (b) Jordan
- (c) Israel
 - (d) Palestine
- (e) None of the above/More than one of the above

145 Ilmenite, which is widely distributed along the Indian coastline, is a mineral of:

- (a) tungsten
- (b) titanium
- (c) gallium
- (d) tin
- (e) None of the above/More than one of the above

146 Compare the Himalayan river with the Peninsular river based on the following comparisons:

1. Most of the Himalayan rivers are perennial, whereas most of the Peninsular rivers are rain fed.

- 2. The gradient of the Himalayan river is steeper than Peninsular river.
- 3. The Peninsular river causes more erosion on its way in comparison to the Himalayan river.

Choose the correct answer from the options given below.

- (a) 1 and 2 only
- **(b)** 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3
- (e) None of the above/More than one of the above

147 Ganga Plain has been described as a:

- (a) pediplain
- **(b)** peneplain
- (c) geosyncline
- (d) karst plain
- (e) None of the above/More than one of the above

148 Which of the following is a freshwater lake?

- (a) Chilika (b) Sambhar (c) Wular
- (d) Loktak
- (e) None of the above/More than one of the above

149 Which of the following planets has the least density?

- (a) Earth
 - (b) Mars
- (c) Venus (d) Saturn
- (e) None of the above/More than one of the above

150 What is the most famous feature of Chiria located in West Singhbhum?

- (a) Iron Ore Mining
- (b) Dam
- (c) Bird Sanctuary
- (d) National Park
- (e) None of the above/More than one of the above

ANSWERS WITH EXPLANATION

1 Option (b) is correct.

Explanation:

- The Subordinate Legislative Committee gives delegated power to the executive to make rules and regulations. It was constituted in 1953.
- The Committee on Subordinate Legislation consists of 15 members. The term of office of members of the Committee shall not exceed one year.
- This committee examines whether the powers conferred by the Constitution or delegated by the Parliament to make rules, regulations, by-laws, etc. are being properly exercised by the executive under that delegation.

2 Option (a) is correct.

Explanation: Article 300 of the Constitution of India deals with suits and proceedings in which the Government of India may sue or be sued in the name of the Union of India.

3 Option (e) is correct.

Explanation:

- In India, both procedure established by law and due process of law is followed.
- The judicial process is a set of interrelated procedures and roles for deciding disputes by an authoritative person or persons whose decisions are regularly obeyed. It is based on the various provisions of Constitution, conventions, due process of law as well as the procedure established by law.
- The scope of Article 21 of the Indian Constitution was broadened in the Maneka Gandhi case. In the Maneka Gandhi case of 1978, the Supreme Court of India widened the scope of Article 21 by stating that the due process of law is one of the basic and essential components of all legal processes.

4 Option (c) is correct.

Explanation:

- The institution called Lokpal and Lokayukta is a citizen's grievance redressal institution which is based on the 'Ombuds Man' concept of Sweden. The Ombuds Man is the oldest body for citizens' complaints in the world. The institution of Ombudsman was first constituted in 1809
- The institution of Lokayukta was first established in Maharashtra in 1971. Though the Act was passed in Odisha in 1970, it came into force in 1983.

5 Option (b) is correct.

Explanation: Adarsh Sein Anand was the 29th Chief Justice in the late 1990s. He was born in Jammu and Kashmir in 1936. He was appointed as the 29th CJI by President 'K. R. Narayanan'. He served as the Chief Justice of India from 1998 to 2001.

6 Option (c) is correct.

Explanation:

- Panchayati Raj was given constitutional status under the 73rd Constitutional Amendment, under which 29 subjects have been placed in the 11th Schedule.
- Rural sports are not included in this schedule, but many topics related to rural development have been kept, in which the main ones are:
- o Fuel and Feed
- Library
- Technical Training
- o Public Distribution System
- o Family Welfare and Women and Child Development
- Health and Hygiene
- o Markets and Fairs

- o Poverty Alleviation
- o Drinking water
- Khadi, village industry, and cottage industry, minor forest produce, agriculture irrigation etc.

7 Option (e) is correct.

Explanation:

- The Demands for Grants are presented to the Lok Sabha along with the Annual Financial Statement in pursuance of article 113 of the Constitution.
- Generally, one Demand for Grant is presented in respect of each Ministry or Department. However, more than one Demand may be presented for a Ministry or Department depending on the nature of expenditure.
- Hence, there is no exact number of 'Demands for Grants' that are put before the Parliament as a part of the Annual Budget in pursuance to Article 113 of the Constitution.

8 Option (a) is correct.

Explanation: In the year 1953 AD, the National Extension Service was started to support the community development programme. It covered almost all the activities of rural development, which were to be implemented with the help of Gram Panchayats with people's participation.

9 Option (d) is correct.

Explanation:

- Election of the members of the State Legislative Council: About one-third of the members of the Council are elected by the members of the Legislative Assembly from among persons who are not its members.
- 1/3rd electorates, including members of municipalities, district boards, and other authorities in the state, are chosen by them.
- 1/12th of the members are elected by electorates who have been engaged in studies in educational institutions (not below secondary schools) within the state for at least three years.
- 1/12th are elected by registered graduates who have completed their studies more than three years ago.
- The rest of the members are appointed by the Governor from amongst persons of excellence in literature, science, art, co-operation, and social service. Thus the members of the State Legislative Council are not elected from the industrialist category.

10 Option (d) is correct.

Explanation: The divisional system in Indian administration pertains to All India Services/Central Services. This system has been adopted to keep the Indian administration under hierarchical system.

Option (c) is correct.

Explanation:

- The Finance Commission is a constitutional body. Under Article 280 of the Indian Constitution, the President of India constitutes a Finance Commission every five years to define the financial relations between the Central Government and the State Governments.
- The first Finance Commission was constituted in 1951. Its president was K. C. Niyogi. The Finance Commission consists of a chairman and four members. The recommendation of the Finance Commission is advisory, which is generally accepted by the government.

12 Option (a) is correct.

Explanation:

Basic needs index

- The Basic Needs Index (BNI) is based on the Large Annual Household Survey data.
- It is designed for all target districts at the district level using appropriate indicators or methodology. The BNI provides information on 26 indicators across five dimensions access to water, sanitation, housing, the surrounding environment, and other facilities.
- BNI index for all states for the year 2012 and 2018 has been prepared using NSO data.
- The index classifies areas on the basis of three levels of access to basic necessities high, medium, and low.

13 Option (b) is correct.

Explanation:

- There is a proposal to set up Krishi Yantra Banks for agriculture and rural development in Bihar.
- According to the 2021 announcement of the Agriculture Department, 328 agricultural machinery banks will be set up by the government in 13 districts of the state.

Option (d) is correct.

Explanation:

- According to the Human Development Index 2019, the rank of Bihar was 36th in India and the Human Development Index value was 0.574.
- The Human Development Index is measured on the basis of life expectancy, education, and per capita income.

15 Option (a) is correct.

Explanation: The fiscal deficit of Bihar during 2021-22 is estimated at ₹ 22511 crore, which is equal to 2.97% of GSDP. According to the revised estimates, the fiscal deficit in 2020-21 is 6.77% of GSDP, which is much higher than 2.97%.

Option (b) is correct.

Explanation:

- Under the Digital Bihar programme, students of classes six and above will get computer education and training from 2021-22.
- The state government is taking steps to implement the National Education Policy 2020 and increase the Gross Enrollment Ratio in higher education to 50% by 2035.

17 Option (a) is correct.

Explanation: As per the recommendations of the 15th Finance Commission, Bihar's share in the divisible pool of central taxes is 4.12% by 2021-26.

18 Option (b) is correct.

Explanation: Chairman of the 15th Finance Commission is N. K. Singh and other members are Ashok Kumar Lahiri, Ramesh Chand, Ajay Narayan Jha, and Anoop Singh. Sudipto Mundle is not its member.

19 Option (c) is correct.

Explanation:

■ The Finance Ministry has clarified the final rules for higher FDI in insurance by amending the Indian Insurance Companies (Foreign Investment) Rules, 2015.

■ Parliament passed the Insurance Amendment Bill, 2021 to increase the FDI limit in the insurance sector from 49% to 74%.

20 Option (d) is correct.

Explanation:

■ Fiscal deficit is projected to be 6.8% of GDP in 2022-23, which is in line with the fiscal consolidation path announced last year to bring the fiscal deficit down to 4.5% by 2025-26. Additionally, the revised fiscal deficit for the current year is estimated at 6.9% of GDP, as against 6.8% in the Budget Estimates.

Option (b) is correct.

Explanation:

- The concepts of economic development and economic growth are different. The concept of economic development is wider than the concept of economic growth.
- The best index of development is the year-on-year increase in per capita national product i.e. per capita real income. It is obtained by dividing the GDP of a country by its population.

22 Option (c) is correct.

Explanation:

- The second phase of the Swachh Bharat Mission (Gramin) is to be implemented in a mission mode from 2020-21 to 2024-25, with a focus on sustainability of ODF status.
- Under this programme, with a focus on ODF Plus, the Open Defecation Free campaign will be continued and solid and liquid waste management will also be promoted.

Option (e) is correct.

Explanation:

- With the abolition of the Planning Commission and the establishment of the NITI Aayog (January 1, 2015), the National Development Council came to an end.
- The National Development Council was established on August 6, 1952. It was an apex body for decision making and deliberations on matters of development in India. Its last meeting was held on October 22, 2011 and this was its 56th meeting.
- The following members were included in the National Development Council:
- o Prime Minister of India (Chairman)
- o All Union Cabinet Ministers
- O Chief Ministers of all states or their substitutes
- o Representatives of Union Territories and
- o Members of the erstwhile Planning Commission

24 Option (a) is correct.

Explanation: The correctly matched list is:

List-I		List-II	
(A)	Sarkaria Commission	(1)	Centre-State Relations
(B)	C. Rangarajan	(2)	to review the
	Committee		methodology of poverty
			measurement
(C)	Parekh Committee	(3)	Infrastructure Financing
			Committee
(D)	Narasimham	(4)	Reforms in Banking
	Committee		Sector

25 Option (d) is correct.

Explanation: The top rice producing states in India in ascending order are — Andhra Pradesh, Punjab, Uttar Pradesh and West Bengal.

26 Option (b) is correct.

Explanation: The Cripps Mission was the first to arrive in the given events.

Incidence	Associated Date
Arrival of Cripps Mission	March 23, 1942
Quit India Movement Resolution	August 7, 1942
Wavell became the Viceroy of India in place of Linlithgow	October, 1943
Arrival of the Cabinet Mission	March 29, 1946

27 Option (c) is correct.

Explanation:

- The historic Lahore session of the Congress was presided over by Pandit Jawaharlal Nehru. Indian National Congress passed the resolution of Poorna Swaraj or complete independence.
- Independence Day was celebrated for the first time on January 26, 1930, on the banks of the Ravi River. Jawaharlal Nehru hoisted the tricolor on this day.

28 Option (d) is correct.

Explanation:

- Ram Manohar Lohia is not related to the Champaran Satyagraha of 1917 AD.
- Champaran Satyagraha took place in 1917 in Champaran district of Bihar under the leadership of Gandhiji. This was the first Satyagraha done in India under the leadership of Gandhiji. Other prominent leader in the movement Dr. Rajendra Prasad, Shrikrishna Singh, Anugrah Narayan Singha, Janakdhari Prasad, and Brajkishore Prasad.

29 Option (b) is correct.

Explanation: Kunwar Singh, the leader of the Revolt of 1857, belonged to a place called Jagdishpur (Ara district).

Option (b) is correct.

Explanation:

- Jayaprakash Narayan had escaped from Hazaribagh Jail during the Quit India Movement.
- Rajendra Prasad was arrested and kept in Hazaribagh Central Jail while Jaiprakash Narayan was sent to Bankipur Jail in Patna.

Option (a) is correct.

Explanation:

- C. R. Das was the president of the Gaya session of the Indian National Congress (1922 AD).
- Chittaranjan Das was fondly called 'Deshbandhu' (friend of the country). He was a great nationalist and famous jurist. Chittaranjan Das was the defense lawyer for the defense of Arvind Ghosh, accused in the 'Alipur Conspiracy Case' (1908 AD).

32 Option (d) is correct.

Explanation: In the interim government formed on September 2, 1946, Rajendra Prasad held the Food and Agriculture Department.

33 Option (b) is correct.

Explanation:

- The Ghadar Party was founded in 1913 AD in San Francisco, USA. The Ghadar Party established the Yugantar Ashram in San Francisco.
- It was a political party declaring armed struggle against imperialism and demanding complete independence of India. Its founding president was Sardar Sohan Singh Bhakna.

34 Option (d) is correct.

Explanation: 'Servants of Indian Society' was founded by Gopal Krishna Gokhale in Pune (Maharashtra). Gokhale considered Ranade his spiritual and political guru. The purpose of this institution was to prepare patriots.

35 Option (c) is correct.

Explanation:

- Lala Lajpat Rai is the author of the book 'Unhappy India' (1928). He has also authored the following books:
- o The Story of My Disposition, 1908
- o Arya Samaj, 1915
- o The United States of America: A Hindu's Impression, 1916 England Debt to India, 1917
- Bal Gangadhar Tilak Kesari, Maratha, Geeta Rahasya
- Annie Besant Commonweal, New India

36 Option (c) is correct.

Explanation: B. R. Ambedkar was invited and attended all the three Round Table Conferences held in London as a Dalit. Tej Bahadur Sapru was also involved in all the three conferences.

37 Option (a) is correct.

Explanation: The Indian Association was founded in 1876 by Surendra Nath Banerjee.

38 Option (c) is correct.

Explanation: The first honorific 'Netaji' to the name of Subhash Chandra Bose was added by the Indian soldiers of the Indische Legion and by the German and Indian officials in the Special Bureau for India in Berlin. It is now used throughout India.

Option (d) is correct.

Explanation:

- Surya Sen is associated with the 'Chittagong Armory Raid'. Surya Kumar Sen was executed on January 12, 1934, by the British authorities at Chittagong Jail.
- Pritilata Wadekar was killed while raiding the Railway Institute at Pahartali (Chittagong).
- Krilpana Dutt was arrested along with Surya Sen.

40 Option (a) is correct.

Explanation:

- Bankim Chand has mentioned Sanyasi Vidroh (1760s-1800s AD) in Anandmath.
- Anandamath is a Bengali fable written by Bankim Chandra Chattopadhyay and published in 1882. It is inspired and set against the backdrop of the Sanyasi rebellion in the late 18th century.

41 Option (d) is correct.

Explanation:

Perimeter of the rhombus = 52 m

$$side = \frac{perimeter}{4} = \frac{52}{4} = 13m$$

Smaller diagonal = 10m

at right angle AAOB

$$AB = 13$$

$$OB = 5$$

By Pythagoras theorem

$$OA = \sqrt{(13)^2 - (5)^2}$$
$$= \sqrt{169 - 25} = \sqrt{144} = 12m$$

L of long diagonal = $12 \times 2 = 24$ m

42 Option (b) is correct.

Explanation:

$$Time = \frac{distance}{speed}$$

$$\frac{100}{8} \left(\frac{5 \times 1000}{60 \times 60} \right) = \frac{1800}{40} = 45 \text{ sec onds}$$

Time of B = 45 + 15 = 60 seconds

Speed of
$$B = \frac{96}{60}$$
 m/s

Speed of B =
$$\frac{96}{60}$$
 m/s

$$\frac{16}{10} \left(\frac{60 \times 60}{1000} \right) = 5.76 \text{ km/h}$$

43 Option (b) is correct.

Explanation:

8 AM to 1 PM next day = 29 hours

extended time, correct time

 $24h\ 10m\ of\ this\ clock = 24h$

Hence, 29 Hour – 28 Hour $\frac{4}{5} \times 60$ Hour 29 hours – 28 hours 48 minutes (12 minutes will be less than 1 o'clock) = 12 o'clock 48 minutes

44 Option (a) is correct.

Explanation:

$$2 - \frac{1}{2 - \frac{1}{2 - \frac{1}{\dots}}}$$

$$x = 2 - \left(\frac{1}{x}\right)$$
$$x^2 - 2x + 1 = 0$$

$$(x-1)^2=0$$

$$x = 1$$

45 Option (c) is correct.

Explanation: (Number divisible by 4, 5, 6 = LCM of 4,

LCM of 4, 5, 6 = 60

First number greater than 200 which is divisible by 60 = 240

Such numbers are 240, 300, 360, 420, 480, 540

Hence, there are 6 numbers between 200 and 600 are exactly divisible by 4, 5 and 6.

46 Option (b) is correct.

Explanation: $3^{4n} - 4^{3n} [a^n - b^n]$ always divisible by a - b

$$= (3^4) - (4^3) = 3^4 - 4^3$$

$$= 81 - 64 = 17$$

47 Option (c) is correct.

Explanation: According to the question,

$$a^2 - b^2 = 256000$$
 ...(i)
 $a + b = 1000$...(ii)

$$a^2 - b^2 = (a + b)(a - b)$$

From equation (i) and (ii),

$$\Rightarrow (a+b)(a-b) = 256000$$

$$\Rightarrow (1000)(a - b) = 256000$$

$$\Rightarrow a - b = 256000 \div 1000 = 256$$

$$\Rightarrow a - b = 256$$

$$\Rightarrow a + b = \frac{1000}{2a} = 1256$$
$$\Rightarrow a = 628$$

From equation (ii), b = 1000 - 628 = 372

So the number is 628, 372

48 Option (c) is correct. **Explanation:**

$$\log_{\sqrt{(2)}} 32 = \log_{\sqrt{(2)}} (2^5)$$

$$= 5 \log_{\sqrt{(2)}} (2)$$

$$= 5 \log_{\sqrt{(2)}} (\sqrt{(2)})^2$$

$$= 5 \times 2 \log_{\sqrt{(2)}} (\sqrt{(2)})$$

$$= 10 \times 1 = 10$$

49 Option (b) is correct.

Explanation:

Selling price of 1 lemon = $\sqrt[3]{\frac{40}{45}}$

cost price of 1 lemon =
$$loss\% = \frac{(CP - SP)}{CP}$$

= $\frac{10}{9}$
if there is a profit of $gain\% = \frac{(SP - CP)}{CP}$ 20%

Selling price of 1 lemon = cost price x (100 + profit%/100)

Selling price =
$$\frac{4}{3}$$

Since sells 3 lemons for ₹4.

Hence sells ¾ lemon for ₹1.

So
$$\frac{3}{4}$$
 × 24 = 18 lemons in ₹24

50 Option (c) is correct.

Explanation:

Speed of train = 58 km/hr

Speed of man = 4 km/h

Relative speed = 58 - 4 = 54 km/h

$$Speed = \frac{\left(54 \times 1000\right)}{\left(60 \times 60\right)\left(\text{in m/s}\right)}$$

Time =
$$\frac{\text{Distance}}{\text{Speed}} = \frac{110}{15}$$

= $7\frac{1}{3}$ seconds
51 Option (a) is correct.

Explanation:

■ Every atom is made of nucleus. The nucleus is generally composed of one or more neutrons and an equal number of protons. Protons and neutrons are called nucleons.

■ Electrons have a negative electric charge, and revolves around the nucleus.

52 Option (e) is correct.

Explanation:

- To reduce the thermal energy generated due to physical process and to keep the body temperature constant, we sweat more in summer. Heat energy equal to the latent heat of vaporization is absorbed by our body, thereby cooling the body. Cotton made clothes have high water absorption, so our sweat gets absorbed into it and evaporates easily into the atmosphere. Thus, therefore in summer we find cotton clothes suitable.
- A CD (Compact Disc) is an optical disc that stores data digitally. Polycarbonate is used to make it.
- Acrylic is also called synthetic fibre.
- Teflon is used for coating non-stick cookware.

53 Option (d) is correct.

Explanation: Diamond and graphite both are made up of carbon and have same chemical properties as that of carbon and they both undergo same type of chemical reactions.

54 Option (e) is correct.

Explanation:

- The main components of liquefied petroleum gas are propane and butane gases. It is more commonly known as LPG. Nowadays, it is increasingly being used as a refrigerant in place of chlorofluorocarbons, because there is no harm to the ozone layer by its use.
- The gas that smells like LPG is a chemical added separately called 'ethyl mercaptan' which gives the gas its characteristic pungent odour.

55 Option (d) is correct.

Explanation:

■ The physical process by which water moves from the soil to the roots is called osmosis. Water is transported in plants by a special type of tissue called xylem.

Role of osmosis in plants:

- Absorption of water from the soil by root hairs takes place in plants by osmosis.
- Absorption of water leads to the formation of a swollen state in the plant cell by osmosis.
- Water is distributed in different parts and cells of plants by osmosis.
- Newborn cells grow by osmotic pressure and inflation pressure.

56 Option (a) is correct.

Explanation: Biodegradable waste can generally be converted into useful substances with the help of bacteria. Those substances which are easily decomposed by micro-organisms (bacteria) are called biodegradable substances.

57 Option (c) is correct.

Explanation:

- At night it is advisable not to sleep under trees, as trees release carbon dioxide at night.
- The carbon dioxide gas released during the day is used by plants in the process of photosynthesis. Therefore, instead of carbon dioxide gas, oxygen comes out through

the stomata. Since the process of photosynthesis does not take place at night, carbon dioxide gas comes out of the stomata during respiration. This is the reason why one should not sleep under trees at night.

58 Option (c) is correct.

Explanation:

- The soil in which insectivorous plants grow is deficient in nitrogen. They fulfill their nitrogen requirement by catching and digesting insects. For this purpose special nutrition methods are developed in them. Hence these plants are partially heterotrophic.
- Some examples are Pitcher plant, Drosera, *Dionaea*, *Serocenia utricularia* etc.

59 Option (a) is correct.

Explanation: The stem of the plant helps in distribution of food to all the parts of the plant and also helps in the storage of food. The above ground part of the plant is called stem.

Stem functions

- o Gives support to the plant.
- $\circ\;$ Transports water and minerals absorbed by the roots to the leaves.
- Transports food prepared by leaves to different parts of the plant.
- Some stems also store food.

60 Option (a) is correct.

Explanation:

- The blood in transfusion should be compatible not only in blood type but also in 'Rh' factor.
- In the year 1940, Landsteiner and Wiener detected another type of antigen in blood which was found in Rhesus monkey. This antigen was named 'Rh' factor. People in whose blood this element is found, their blood is called Rh positive and those whose blood is not found, their blood is called Rh negative.

61 Option (d) is correct.

Explanation: Pituitary gland is located in the brain. It is the smallest endocrine gland of the human body. It is also known as the 'master gland'. It is said because it controls the secretion of the endocrine glands as well as stimulates the nature, health, growth, and sexual development of the person.

62 Option (c) is correct.

Explanation:

- Ultrasound waves are used to know the development of the fetus in the womb. Other uses of ultrasonic waves can be seen in the following form:
- o In the treatment of nervous and rheumatic diseases.
- Small particles of dust and coal etc. present in the air can be coagulated by ultrasonic waves.
- Washing of clothes, watches and internal parts of planes are also done by these waves.
- In the medical world it is used for bloodless operation, detection of tumor etc., tooth extraction etc.

63 Option (c) is correct.

Explanation:

- The universal acceptor blood group is AB.
- Blood group 'AB' is called universal recipient because it does not contain any antibodies. Blood group AB was discovered by DeCastello and Sturle in 1902.

64 Option (d) is correct.

Explanation:

- Pneumonia is an acute respiratory infection of the lungs.
- It is also a pneumococcal disease caused by bacteria called *Streptococcus pneumoniae or pneumococcus*.

65 Option (a) is correct.

Explanation: Concave mirror forms an erect, virtual and enlarged image when the object is between focus and pole of mirror.

66 Option (d) is correct.

Explanation: In hot summer days, the sweat evaporates faster due to fan's air. In this process, sweating absorbs heat from the body, which gives a feeling of coolness.

67 Option (a) is correct.

Explanation:

- When a light ray traveling from one homogeneous medium enters another homogeneous medium, it deviates from its path i.e. it either bends towards the normal or moves away from the normal. This phenomenon is called refraction of light.
- The twinkling of stars is due to atmospheric refraction of light.

68 Option (b) is correct.

Explanation: It is a nuclear fusion bomb based on the uncontrolled fusion of heavy hydrogen nuclei. The hydrogen bomb is an extremely powerful bomb whose destructive power derives from the rapid generation of enormous energy during nuclear fusion of isotopes of hydrogen (deuterium and tritium) using the atomic bomb as a trigger.

69 Option (b) is correct.

Explanation: Due to high vapor pressure in the pressure cooker, the boiling point of water increases due to which the food gets cooked quickly in the pressure cooker.

- Inside a pressure cooker, the temperature rises significantly above the boiling point of water at standard atmospheric pressure. The sealed environment allows the temperature to reach levels between 115°C to 121°C. This elevated temperature speeds up the cooking process by providing more intense and rapid heat transfer to the food.
- As the pressure inside the pressure cooker increases, it prevents the water within the cooker from boiling at its normal boiling point. Instead, the water remains in a superheated state, which means it can reach higher temperatures before vaporizing. This elevated pressure further accelerates the cooking process.

70 Option (b) is correct.

Explanation:

When refrigerator doors are left open:

■ Warm room air enters, increasing the workload on the compressor. The compressor runs continuously, consuming more electricity and generating extra heat. Heat is released from condenser coils, adding to the room temperature.

71 Option (d) is correct.

Explanation: When a piece of ice floating on water in a glass melts, the water level in the glass remains unchanged. This is because ice displaces an amount of water equal to its volume and when ice melts, it takes up the same amount of space as water according to Archimedes principle.

72 Option (d) is correct.

Explanation:

- **Voltmeter:** It is a measuring instrument, which is used to measure the potential difference between any two points in a circuit.
- **Ammeter:** An instrument for measuring the current flowing in a branch of a circuit.
- **Potentiometer:** It is used to measure the potential of an electric circuit or cell.
- Galvanometer: The instrument which detects the presence/absence of electric current in an electric circuit is called a galvanometer.

73 Option (d) is correct.

Explanation: Gravitational acceleration of a freely falling object in a vacuum does not depend on its mass. Hence the feather, the rubber ball, and the wooden ball will fall down together.

74 Option (d) is correct.

Explanation: The phenomenon of soap films displaying beautiful colors in the daytime is due to a process called "interference of light." This occurs when light waves reflect off the top and bottom surfaces of a thin, transparent film (in this case, the soap film) and then interfere with each other.

75 Option (a) is correct.

Explanation: Mass number: It is equal to the sum of the number of protons and neutrons in the nucleus of an atom

76 Option (a) is correct.

Explanation:

- The main component of cement is limestone. It is a sedimentary rock that is found naturally in the earth.
- The main constituents of cement include lime, silica, calcium sulphate, iron oxide, magnesia, sulphur, etc.

77 Option (b) is correct.

Explanation: Isotopes are defined as atoms of the same element that have the same atomic number but different mass numbers.

78 Option (d) is correct.

Explanation:

- The fixed temperature point at which solid, liquid, and gas states can exist together is called the triple point.
- At the triple point, water exists in all its three forms, namely ice, water, and water vapour.

79 Option (a) is correct.

Explanation:

- Aluminum is the most abundant metal in the Earth's crust. It is a reactive metal. The primary ore of aluminum is bauxite.
- Other major ores of aluminum are cryolite, corundum, and feldspar.

80 Option (b) is correct.

Explanation:

- In general, a solution with a pH value greater than 7 is basic and one with a pH value less than 7 is acidic.
- The pH value of a neutral solution is always 7.

81 Option (c) is correct.

Explanation: India assumed the presidency of the United Nations Security Council on January 1,2021.

82 Option (b) is correct.

Explanation: The 'Sputnik-V' vaccine has been developed by the 'Gamlaya Research Institute of Epidemiology and Microbiology' in Russia.

83 Option (a) is correct.

Explanation: On January 20, 2021, Joe Biden was sworn in as the 46th President of the United States. Biden, 78, is the oldest president in US history and also the second Roman Catholic president.

84 Option (a) is correct.

Explanation: Britain's Prime Minister Boris Johnson was invited as the chief guest at India's Republic Day celebrations in New Delhi on January 26, 2021, but the hospitality visit was canceled due to Corona (COVID-19).

85 Option (b) is correct.

Explanation:

■ Indian Foreign Service officer TS Tirumurti has been appointed as the next Ambassador or Permanent Representative of India to the United Nations. He took over on May 19, 2020, replacing Syed Akbaruddin.

86 Option (a) is correct.

Explanation:

- According to the 2011 census, the population of females in Gopalganj district is more than that of males.
- While Bhagalpur and Munger have the lowest sex ratio.

87 Option (b) is correct.

Explanation:

- On April 1, 1912, 'Charles Stuart Bailey' became the Lieutenant Governor of the state of Bihar and Orissa.
- In 1912, the Bihar Legislative Council was formed, in which 3 ex-officio members, 21 elected members and 19 nominated members were kept. After this, the first meeting of the Legislative Council was held on January 20, 1913 in the auditorium of Patna College (Bankipur).

88 Option (b) is correct.

Explanation: Rashmi Kumari (Patna, Bihar) is an International Carrom Champion from India. She won the World Carrom Championship held in Colombo, Sri Lanka in the year 2012.

89 Option (d) is correct.

Explanation: Bihar's Chief Minister's Secretariat, National Informatics Center and Disaster Management Department have been jointly selected as winners in the 'Pandemic Category' at the Digital India Awards, 2020. Earlier the Uttar Pradesh Food and Civil Supplies Department had won the Digital India Award, 2020 under the category 'Excellence in Digital Governance'.

90 Option (a) is correct.

Explanation: Out of total 243 seats in the Bihar Legislative Assembly, 38 seats are reserved for Scheduled Castes and 2 seats for Scheduled Tribes.

91 Option (b) is correct.

Explanation:

- In the year 2006, 50% reservation was given to women in the Panchayati Raj system established by the Bihar Government under the 73rd Constitutional Amendment so that women could be brought into the mainstream of politics.
- Bihar was the first state in the country, where 50% reservation was given to women in Panchayati Raj.

92 Option (a) is correct.

Explanation: Jharkhand was separated/partitioned from Bihar on November 15, 2000, on the occasion of the birthday of Bhagwan Birsa Munda.

93 Option (d) is correct.

Explanation: The new ministry proposed in the budget presented in Bihar for the year 2021-22 was related to skill and entrepreneurship development. Industrial Training Institutes (I.T.I.), Polytechnics will be included under this.

94 Option (b) is correct.

Explanation:

- Manav Vikas Mission was started in the year 2011 in Bihar. Its objective is the all-round development of the state. A total of seven departments are included under the Human Development Sub-Mission in Bihar. These are the main departments:
- Health Department
- o Education Department
- Social Welfare Department
- Scheduled Castes and Scheduled Tribes Welfare Department
- Backward Classes and Extremely Backward Classes Welfare Department
- o Minorities Welfare Department
- o Disaster Management Department

95 Option (d) is correct.

Explanation: Garib Kalyan Rozgar Abhiyan was launched by Prime Minister Narendra Modi on June 20, 2020 from Telihar village in Beldaur block of Khagaria district of Bihar.

96 Option (a) is correct.

Explanation: Oxford EstroZeneca COVID-19 vaccine (code name — AZD1222) manufactured by Serum Institute Pune (Maharashtra) is marketed under the name 'Covishield'.

97 Option (b) is correct.

Explanation:

- The strategically important 'Atal Tunnel' is a 9.02 km long single-tube tunnel located at Rohtang in Himachal Pradesh at an altitude of about 3,000 meters above sea level in the eastern Pirpanjal range of the Himalayas.
- It is the longest highway tunnel in the world.

98 Option (c) is correct.

Explanation:

■ The Government of India approved the merger of the Railway Budget with the General Budget on 21 September 2016 and the first joint budget (with Railways) was presented in Parliament on 01 February 2017 by the then Finance Minister Arun Jaitley. ■ The practice of a separate budget for the Railways was started in 1924 on the recommendation of the Acworth Committee.

99 Option (d) is correct.

Explanation:

- The Citizenship (Amendment) Act, 2019 was brought in to amend the Citizenship Act, 1955.
- The Act seeks to provide citizenship eligibility to minority migrants Hindu, Sikh, Buddhist, Jain, Parsi and Christian who came to India from Afghanistan, Bangladesh and Pakistan on or before December 31, 2014.

100 Option (b) is correct.

Explanation: Government buildings built around Rajpath from Rashtrapati Bhavan to India Gate are to be reconstructed or renovated under the Central Vista Project, started in 2019.

101 Option (c) is correct.

Explanation: The Jammu and Kashmir Reorganization Act, 2019 reorganized the state of Jammu and Kashmir into the Union Territory of Jammu and Kashmir with a legislature. Along with this, a new Union Territory of Ladakh was formed without a legislature. It was implemented from 31 October 2019.

Option (b) is correct.

Explanation: Indian footballer Sandesh Jhingan has won the All India Football Federation Men's Player of the Year award for 2021.

103 Option (c) is correct.

Explanation: Pradhan Mantri Kisan Samman Nidhi Yojana was launched on February 1, 2019. This scheme is a Central Sector Scheme launched by Prime Minister Narendra Modi with the objective of providing financial assistance to small and marginal farmers.

104 Option (b) is correct.

Explanation: In the Olympics 2021 (official name - Tokyo Olympics, 2020), India's Neeraj Chopra won the first gold medal in the javelin throw event of track and field.

105 Option (a) is correct.

Explanation: India won a total of 19 medals (5 gold, 8 silver and 6 bronze) in the Tokyo Paralympics 2021. India finished 24th in the medal tally.

106 Option (d) is correct.

Explanation:

- India took over the Presidency of the United Nations Security Council (UNSC) on August 1, 2021. India's two-year tenure as a non-permanent member of the Security Council began on January 1, 2021.
- There are a total of 15 countries in the United Nations Security Council. Among these five (US, Russia, France, UK and China) are permanent members. While every year the UN General Assembly elects five non-permanent members (out of a total of 10) for a term of 2 years.

\107 Option (c) is correct.

Explanation: After a long war that lasted for more than two decades, all its troops were withdrawn from Afghanistan on August 30, 2021, on the instructions of US President Joe Biden.

108 Option (b) is correct.

Explanation:

- French company 'Dassault Aviation' has supplied Rafale fighter jets to India.
- The Rafale is a twin-engine multi-role fighter aircraft designed and manufactured in 2001 by Dassault Aviation. India is the fourth country after France, Egypt and Qatar to induct Rafale into its fleet.

Option (d) is correct.

Explanation: The skirmish between Indian and Chinese soldiers in the Galwan Valley of Lakh took place on the intervening night of June 15-16, 2020. In this skirmish, 20 soldiers of the Indian Army were martyred.

110 Option (a) is correct.

Explanation: Pegasus Spyware is an electronic malware developed in Israel. It is a military grade spyware provided by Israeli firm 'NSO Group' to various governments.

Option (b) is correct.

Explanation: On May 3, 1939, Subhash Chandra Bose founded the Forward Bloc. Subhash Chandra Bose was elected president for the Haripura (Gujarat) Congress session in 1938. Again in 1939, in Tripuri Session (Jabalpur, Madhya Pradesh) he was elected the President of the Congress.

Option (a) is correct.

Explanation: On August 24, 1946, the formation of India's first interim government was announced under the leadership of Pandit Nehru. Liaquat Ali Khan was the Finance Minister in the Interim Government.

Option (a) is correct.

Explanation: The armed rebellion of the Santhals against the foreign rule took place in 1855 AD under the leadership of Sidhu and Kanhu, residents of Bhognadih. The root cause of this rebellion was the exploitation of the Santhals by the Bengali and Punjabi moneylenders.

Option (a) is correct.

Explanation:

- Rajkumar Shukla had given invitation to Gandhiji to come to Champaran. In 1916, Gandhiji had come to attend the annual session of the Congress in Lucknow. There Gandhiji met Neel Kisan of Champaran. Where Rajkumar Shukla informed Gandhiji about the Tinkathia system (where poor farmers were forced to grow indigo on 3/20th of the fields) of Champaran.
- After the successful leadership of Champaran Satyagraha, Rabindranath Tagore gave Gandhi the title of 'Mahatma' for the first time.

115 Option (b) is correct.

Explanation:

- Gautam Buddha had attained enlightenment in Bodh Gaya.
- In Sarnath (Rishi Pattanam and Mrigavan), he gave his first sermon to five Brahmin monks, which is called 'Dharmachakrapravartan' in Buddhist texts.

116 Option (c) is correct.

Explanation:

■ In 1913 AD, Shachindranath Sanyal established a branch of Anushilan Samiti in Patna.

■ In 1906, Babaji Thakurdas established the Ramakrishna Society in Patna and started publishing a newspaper with revolutionary thoughts called 'Motherland'.

Option (b) is correct.

Explanation:

- The Bihar Samajwadi Party was formed in 1931 by Jayaprakash Narayan, Phoolan Prasad Verma and some others. Its goal was that the process of development should be controlled by the state and the kings and landlords should be abolished without compensation.
- In the year 1948, Jayaprakash Narayan led the Socialist Party of the Congress and later founded the Samajwadi Socialist Party in association with the members of Gandhian Party.

118 Option (a) is correct.

Explanation:

- The tomb of Sher Shah Suri is located in Sasaram, Bihar. Its construction was completed on August 16, 1545.
- The mausoleum is a beautiful example of Indo-Islamic architecture, it was designed by the architect Mir Muhammad Alibaz Khan. It is made of red sandstone which is almost square.

Option (a) is correct.

Explanation:

- The Harappan site Lothal is located in the Ahmedabad district of Gujarat. The excavator of Lothal is Ranganatha Rao. This place is situated on the banks of the Bhogava River in Gujarat.
- Dabarkot: The Harappan site is located in the Zhob valley near Loralai in Balochistan.
- Kalibanga: This place is located in Ganganagar district of Rajasthan.
- Rakhigarhi: It is situated on the banks of the dying Saraswati river in the Hisar district of Haryana. It is also called 'Saraswati Civilization'.

120 Option (a) is correct.

Explanation: The Chola dynasty was founded in the 9th century on the ruins of the Pallavas. The founder of the Chola dynasty was Vijayalaya (850-87 AD). His capital was Tanjore or Thanjavur. Vijayalaya had assumed the title of 'Narkesari'.

121 Option (b) is correct.

Explanation:

- The first Buddhist Council was organized in 483 BC.
- It took place in Rajagriha under the chairmanship of Mahakashyap during the period of Ajatashatru. Sutta Pitaka and Vinaya Pitaka were compiled in this council.

122 Option (d) is correct.

Explanation: The author of the book 'Kiratarjuniya' is 'Bharavi'. Bharavi used to beautify the Pallava-era court. He lived in the court of the Pallava king Simhavishnu. Singhvishnu laid the foundation of the Pallava dynasty in 575 AD. He was a follower of both Buddhism and Vaishnavism.

123 Option (a) is correct.

Explanation: The foundation of Qutub Minar was laid by Qutubuddin Aibak in honor of the Sufi saint Qutubuddin Bakhtiyar Kaki. The credit for completing

the construction of Qutub Minar goes to Iltutmish. During the time of Qutubuddin Aibak, only the first floor of Qutub Minar could be constructed. But, later Iltutmish made it 225 feet high with five storeys.

124 Option (c) is correct.

Explanation: The Vijayanagara Empire was founded in 1336 AD by two brothers named Harihara and Bukka. The literal meaning of Vijayanagara is 'City of Victory'.

Option (c) is correct.

Explanation: Sir Thomas Roe' came to India during the reign of Jahangir. Sir Thomas Roe reached Jahangir's court in 1615 AD as the ambassador of Emperor James-I.

Option (d) is correct.

Explanation: Ain-i-Akbari (Laws of Akbar) is the work of Abul Fazl. This is an important work of Mughal India composed in Persian language.

Option (b) is correct.

Explanation: Thomas Munro and Captain Reid are considered to be the founders of the Ryotwari system. In 1792 AD, the Ryotwari system was first implemented in the 'Baramahal' district of Tamil Nadu (Madras) with the efforts of Captain Read. Apart from Tamil Nadu, this system was implemented in Bombay, East Bengal, Assam and parts of Coorg in Karnataka. This system was applicable to 51% of the total British land.

128 Option (a) is correct.

Explanation:

- The Revolt of 1857 was called the 'First Indian War of Independence' by V. D. Savarkar.
- Historians' opinion on the Revolt of 1857:
- o First Indian freedom struggle V. D. Savarkar
- o Neither was the First, nor the National, nor the Freedom Struggle Ramesh Chandra Majumdar
- This rebellion was a freedom struggle in the absence of nationalism – Dr. S. N. Sen
- o It was a national rebellion Benjamin Disraeli
- o There was a Hindu-Muslim conspiracy against the British James Outram and W. Taylor

Option (b) is correct.

Explanation:

- Annie Besant was the first woman president of the Indian National Congress.
- The first Indian president of the Indian National Congress was Womesh Chand Banerjee.
- The first Indian woman president of the Indian National Congress was Sarojini Naidu.
- Badruddin Tyabji was the first Muslim President of the Indian National Congress.

130 Option (d) is correct.

Explanation:

- 'Bahishkrit Bharat' magazine was started by Babasaheb Ambedkar which was a fortnightly magazine.
- BR Ambedkar is known all over the world for his books and degrees. Babasaheb was declared the world's number one scholar by Columbia University.

Option (b) is correct.

Explanation:

■ The Pattiseema Lift Irrigation Project is a river linking project that connects the Godavari River with the Krishna River.

■ This project became the first such irrigation project in the country which has been completed on time without any budget increase. Its name is also recorded in 'Limca Book of Records'.

132 Option (b) is correct.

Explanation:

- Esker is a typical topography, which is not completely layered. It is evidence of high glacial river flow and developed from glacial alluvial deposits.
- It is composed of gravel, sand, and pebble stone. This is a topography developed after the end of glaciation.
- Drumlin is the major depositional topography. It is an inverted boat shaped topography which is developed before the last glaciation. It is a deposit of boulder-clay itself in the form of small mounds. It looks like an upside down boat.
- Egg-basket topography is characteristic of drumlins and not of eskar-rich areas. Where flocks of drumlins are found, the landforms look like a basket of eggs.
- Drumlins are produced by the action of glaciers.

133 Option (c) is correct.

Explanation:

- Coal is a solid organic material, which is used as a fuel. Coal is very important as a source of energy.
- Underground coal burning is happening in Jharia of Jharkhand state for the last 100 years, now this fire has reached Jharia city.

Option (c) is correct.

Explanation:

- Gaya district of Bihar has deposits of mica.
- Mica is a light mineral, which is found as a layer in igneous and metamorphic rocks.
- Mica is an insulator of electricity due to which it is used in electrical equipment, computer, aircraft, and wireless industry.

135 Option (b) is correct.

Explanation:

- Son and Ganga rivers meet near Maner in Patna. The river Ganga flows in Bihar from west to east, enters the state at Chausa in Buxar district of Bihar and forms the boundary between Saran and Bhojpur districts.
- Son river is also known as Hiranyavaha and Sonbhadra. It is the main river of South Bihar. It originates from Amarkantak in Madhya Pradesh.

Option (c) is correct.

Explanation:

- The Damodar, Koel, and Subarnarekha rivers originate from the Chhotanagpur plateau. Damodar river originates from a place called Tori in Latehar district of Jharkhand.
- The Damodar River is called the Sorrow of Bengal.
- The Subarnarekha River originates from Nagdi village near Ranchi in the Chhotanagpur plateau. This river is the only river of Jharkhand which freely flows into the Bay of Bengal.

\137 Option (c) is correct.

Explanation: Kanwar Tal Lake is the first Ramsar site in the state of Bihar. It is located in Begusarai district of Bihar. This is the country's 39th (2020) Ramsar site.

138 Option (a) is correct.

Explanation:

■ Brahmayoni Hill is situated in Gaya district of Bihar.

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■ This Brahmayoni mountain situated in the south of Gaya is the highest mountain of Gaya. It is named after a natural fission on the top of this mountain (which is believed to be a symbol of female power or Brahmayoni) which is worshipped.

Option (b) is correct.

Explanation: Bihar has the maximum number of 13 districts in the North-West agro-climatic zone.

140 Option (b) is correct.

Explanation: Geodesy is the science of accurately measuring and understanding the Earth's shape (geometric shape), orientation in space, and gravity.

141 Option (b) is correct.

Explanation: The famous German scholar Alfred Wegener presented this theory in 1912. He found that a geographical uniformity could be given by joining the present continents. He called it the Jigsaw fit. According to him, all the landmasses of the earth were connected together in the Carboniferous era. He named this large continent as 'Pangaea'. Around it there was an expanse of a great ocean called "Panthalassa".

142 Option (c) is correct.

Explanation:

- The Sunda Trench is located parallel to the island of Sumatra. Trenches are the deepest parts of the oceans. They are most commonly found in the Pacific Ocean.
- The Mariana Trench, in the Pacific Ocean, is the deepest location in the Indian Ocean.
- The Sunda Trench, in the Indian Ocean, is the deepest location on India.

Option (b) is correct.

Explanation:

- The apparent force due to the rotation of the Earth is called the Coriolis force. The direction of the winds flowing on the surface is determined by the air pressure and the rotation speed of the earth.
- The winds rising above the equatorial low pressure area flow towards the poles in the upper atmosphere. But due to the rotation force of the earth, it starts getting deflected towards the east. This force was first described by the French scientist Coriolis. For this reason this force is named Coriolis force.
- Due to the Coriolis force, the wind is deflected to its right in the northern hemisphere and to its left in the southern hemisphere. This effect is least at the equator and maximum at the poles.

144 Option (a) is correct.

Explanation: The Dead Sea is also called the Salt Sea. It is located in western Asia. It is bordered by Jordan in the east, Israel and Palestine in the west. It is located in the Rift Valley of Jordan, its tributary being the Jordan River. Lebanon does not share a land border with the Dead Sea.

145 Option (b) is correct.

Explanation: Ilmenite is a titanium-iron oxide mineral with the formula FeTiO₂. It is a weakly magnetic black or steel-gray solid. Ilmenite is an important ore of titanium and the main source of titanium dioxide, which is used in

paints, printing inks, fabrics, plastics, paper, sunscreens, food, and cosmetics.

146 Option (a) is correct.

Explanation:

■ The comparison of Himalayan and Peninsular rivers can be seen in the following form.

■ Himalayan River

- o **Origin:** Himalayan mountains covered with snow rivers
- o Getting water from perennial glaciers and rain
- Antecedents and successors: arboreal forms in the plains
- o Very large basin
- Young & active and
- Deepening of valleys

■ Peninsular river

- o **Origin:** Peninsular plateau and central highlands
- o **Seasonality:** Dependent on monsoon rains
- o Superimposed, rejuvenated rivers, radial and rectangular patterns
- o Relatively small basin
- Rivers with sloping cross-sections that have reached their bedrock.

Option (c) is correct.

Explanation:

- The Gangetic plain is described as a geosyncline.
- The Ganga plain is basically an earthquake trough, which was formed mainly in the third phase of the Himalayan range formation process about 60 million years ago.
- **Peniplain:** The type of plain formed by rivers in the last stage of their erosion cycle. It is also called Neniplain or Sampraya Maidan.
- **Pediplane:** In arid and semi-arid regions, the ground formed as a result of wind erosion is called pediplane.
- **Karst Plains:** The plains formed as a result of the action of rain water or underground water in limestone areas are called karst plains.

148 Option (e) is correct.

Explanation:

- The largest lake in India is Chilka Lake in Odisha, which is a salt water lagoon lake.
- Sambhar is the largest lake located on the mainland of India. It is a salt water lake.
- The largest fresh (sweet) water lake in India is the Wular Lake (Jammu and Kashmir). Loktak (Manipur) is the largest fresh water lake in Northeast India.

(149) Option (d) is correct.

Explanation: Saturn has the lowest density among the given options. Ascending order of planets according to density - Saturn, Uranus, Jupiter, Neptune, Mars, Venus, Mercury, Earth.

150 Option (a) is correct.

Explanation: Chiriya situated in West Singhbhum is famous for iron ore mining.

