

 Nizamuddin Auliya was not obliged to meet him one of the following Sultans. Who was he? (a) Jalaluddin Khilji (b) Alauddin Khilji 	I
 (c) Ghiyasuddin Tughlaq (d) Muhammad Bin Tughlaq 2 Who among the following Sultans had adopted the title first as 'Hazrat-e-Ala' and then 'Sultan'? (a) Bahlul Lodi (b) Sikander Lodi (c) Sher Shah Suri (d) Islam Shah Suri 	1
 Who among the following Sultans had made an effort to improve the quality of fruits? (a) Muhammad Bin Tughlaq (b) Firoz Tughlaq (c) Sikander Lodi (d) Sher Shah Suri 	ľ
 Which of the following was also known as the chalco-lithic age? (a) Paleolithic age (b) Neolithic age (c) Copperlithic age (d) Iron age 	V
 Which of the following kings of Magadha was a contemporary of Alexander, the Great? (a) Mahapadma Nanda (b) Dhanananda (c) Sukalpa (d) Chandragupta Maurya 	ſ
 After the Maurya dynasty which dynasty established its rule? (a) Saka (b) Kushan (c) Satvahana (d) Shunga 	ſ
 Which of the following facts is not common in Buddhism and Jainism? (a) Self-infliction (b) Neutral towards Vedas (c) Non-violence (d) Rejection of rituals 	ľ
 Which of the following kings established Patliputra? (a) Shishunaga (b) Bimbisara (c) Ajatshatru (d) Udayin 	ſ
 9 In which of the following cities did the first Buddhist council took place? (a) Nalanda (b) Gaya (c) Rajgir (d) Bodhgaya 	V
 Who among the following Sultans had established a city, where Agra is at present? (a) Muhammad Bin Tughlaq (b) Firoz Tughlaq (c) Bahlul Lodi (d) Sikander Lodi 	7
 Who among the following Mughal Emperors was not allowed to enter Delhi by Wazir Ghaziuddin? (a) Alamgir II (b) Shah Alam II (c) Akbar II (d) Bahadur Shah II 	1

12 Who among following	English officials defeated
Portuguese at Swally? (a) William Hawkins	(b) Thomas West
(c) Thomas Roe	(d) Josiah Child
13 Which of the following	
the first carnatic war?	
(a) The rivalry between the	e English and the French
(b) War over throne in Aust	tria
(c) Issue of throne	
(d) Capture of French ships	
14 Through which of the	
Council?	to veto the decisions of the
(a) Regulating Act 1773	(b) Act of 1786
(c) Charter Act of 1793	
15 Who among the followin	
in the First Round-Table Co	
(a) Maulana Mohammad A	li
(b) Maulana Abul Kalam	
(c) Mahatma Gandhi	
(d) Jawaharlal Nehru	
16 Which of the following le	
the Congress Session of 19 (a) Bal Gangadhar Tilak	
(c) Aurobindo Ghosh	
17 Which of the following I	Indians was appointed 'Naib
diwan' of Bihar by Robert	
(a) Omichund (c) Rai Durlabh	(h) Manik Chand (d) Shitab Rai
	. ,
(a) Vinoba Bhave	(b) Jawaharlal Nehru
(c) Sardar Patel	(d) Shaukat Ali
19 Who opined that Crisp	Mission was a "post-dated
cheque of a shattering bank	
(a) Mahatma Gandhi	(b) Maulana Azad
	(d) Jayaprakash Narayan
20 "Quit India Movement" s (a) 1940 (b) 1941 (c	started in: c) 1942 (d) 1945
21 Who founded 'Forward B	
(a) Subhash Chandra Bose	
(c) Bhagat Singh	(d) B.R. Ambedkar
22 'Dandi March' started in:	:
(a) 1932 (b) 1931 (c	c) 1929 (d) 1930
23 Sachchidananda Sinha w (a) Ouit India Movement	as associated with:

2001

(b) Dandi March

(c) Civil Disobedience Movement(d) None of these	Who is the supreme Executive in India?(a) President
24 Who was associated with the Peasants' Movement in	(b) Prime Minister
Bihar? (a) Rajendra Prasad (b) C.R. Das	(c) Leader of Opposition(d) Cabinet Secretary of the Government of India
(c) Swami Sahajanand (d) Bhagat Singh	42 In India, the election of the President is done by:
 The first sitting of Congress Socialist Party was held in: (a) Delhi (b) Nasik 	(a) Direct election(b) Single Transferable vote system
(c) Patna (d) Lahore	(c) Proportional vote system
26 The song 'Vande Mataram' was written by:	(d) Open Ballot system
(a) Jayprakash Narayan(b) Rajendra Prasad(c) Birsa Munda(d) None of these	43 Which is the Upper House of the State Legislatures in India:
27 "Swaraj is my birthright and I will have it". This statement is related with:	(a) Legislative Council(b) Legislative Assembly(c) Office of the Governor(d) None of these
 (a) Birsa Munda (b) Anugraha Narayan Sinha (c) Sachchidanand Sinha (d) None of these 	44 By which Constitutional Amendment Act did the Panchayati Raj Institution get Constitutional status?
 Who was the founder of the Indian National Congress? (a) A.O. Hume (b) Mahatma Gandhi 	(a) 73^{rd} (b) 71^{st} (c) 74^{th} (d) None of these
(c) Annie Besant (d) Lala Lajpat Rai	45 Under which articles of the Constitution of India are given the Fundamental rights for the citizens?
29 Partition of Bengal occurred in:	(a) Articles 112 to 135 (b) Articles 12 to 35
(a) 1905 (b) 1909 (c) 1906 (d) 1919	(c) Articles 222 to 235 (d) None of these
 (30) Where was the first session of the Indian National Congress held? (a) Delhi (b) Lahore (c) Mumbai (d) Patna 	46 By 42 nd Amendment Act (1976) of the Constitution of India, a new chapter is added:
31 Who among the following was not an extremist?	(a) Administration of the Federal areas(b) Formation of Inter-State Council
(a) Bal Gangadhar Tilak(b) Madanlal Dhingra(c) Udham Singh(d) Gopal Krishna Gokhale	(c) Fundamental Duties(d) None of these
32 From where was Mahatma Gandhi returned with	47 Who advises the Government of India on legal aspects?
empty hands in December 1931? (a) London (b) Moscow	(a) Attorney General(b) Chief Justice of India
(c) Washington (d) Tokyo	(c) Chairman of Law Commission
 Gandhi-Irwin Pact was signed in: (a) 1931 (b) 1935 (c) 1942 (d) 1919 	(d) None of these
34 Non-Cooperation Movement was started in:	48 Who appoints the member of Union Public Service Commission?
(a) 1920 (b) 1930 (c) 1917 (d) 1921	(a) Parliament (b) President (c) Chief Justice of India (d) Standing Committee
 (a) Uttar Pradesh (b) Bihar 	(c) Chief Justice of India(d) Standing CommitteeWhich has the power to increase the number of judges
(c) Madhya Pradesh (d) None of these	in the Supreme Court?
36 With which Movement was Jayprakash Narayan was related?	(a) Prime Minister(b) President(c) Parliament(d) Ministry of Law
related? (a) Champaran Movement	50 Which subject is not included in the Panchayati Raj
(b) Non-Cooperation Movement(c) Individual Satyagraha	Institution of India? (a) Implementation of Land Reforms
(d) Quit India Movement	(b) Judicial Review
37 Birsa Munda was in favour of:	(c) Implementation of Poverty Alleviation Programmes(d) None of these
(a) Jharkhand(b) Uttaranchal(c) Chhattisgarh(d) None of these	51 In India, the Panchayati Raj represents:
38 In India, the first railway line was ready in:	(a) Decentralization of Powers(b) Participation of people
(a) 1853 (b) 1854 (c) 1855 (d) 1859	(c) Community development
39 In which year did Bihar get the status of a separate province in the reign of British administration?	(d) All of these
(a) 1905 (b) 1912 (c) 1936 (d) 1946	 (a) Moon (b) Ocean (c) Sun (d) Air
40 Who has the power to appoint the Anglo-Indian Com- munity in the Lok Sabha?	53 The process of making of camphor vapour from solid
(a) Minority Commission (b) The President of India	camphor is called: (a) Evaporation (b) Freezing
(c) The Prime Minister (d) Vice-President	(c) Melting (d) Sublimation

		inerals is found in Bihar?	69 Which of the following i	
		 Iron Petroleum 	(a) Vegetable Oil	(b) 1
	0	4. retroleum	(c) Kerosene	(d) (
	ect the correct code: Only 1	(b) 1 and 2	$\sqrt{70}$ The gas used for cooking	
• • •	5	(d) 1, 2 and 4	(a) Carbon Dioxide (c) Methane	(b) [(d)]
55 R	egur Soil is maximum in			. ,
		(b) Tamil Nadu	(a) Carbon Dioxide	-
(c)	Andhra Pradesh	(d) Jharkhand	(c) Nitrous Oxide	(b) 1 (d) 1
56 K	orba Coal field is situate	d in:	72 The polluted gas emitted	. ,
()		(b) Chhattisgarh	(a) Carbon Dioxide	(b) (
(c)	West Bengal	(d) Assam	(c) Marsh gas	(d) I
	addi tribes are inhabitar		73 Which is used in preserv	. ,
• •		(b) Himachal Pradesh	(a) Citric acid	(b) I
		(d) Meghalaya	(c) Sodium Benzoate	(d) 5
		by plants and trees is called:(b) Metabolic Synthesis	74 Which metal is used as a	filan
• •		(d) Photosynthesis	(a) Iron	(b) I
		miconductor in a transistor?	(c) Silver	(d)]
		(b) Germanium	75 When was the first Ind	ian sa
• •		(d) Silver	launched?	
60 W	which is responsible for	r catalysing the process of	(a) 10 July 1992	(b) 1
	mical reaction in biotic s		(c) 1 November 1966	(d) 3
()		(b) DNA	76 International Date Line	
		(d) Proteins	(a) Africa	(b) A
	-	for diabetes in humans?	(c) Pacific Ocean	(d) /
	, 0	(b) Haemoglobin	(a) Igneous mountain	(b) I
		(d) Insulin	(c) Peak	(d) I
	itamin which is found i health of skin is:	n citrus fruits and vital for	78 The percentage of literac	. ,
		(b) Vitamin B		c) 52.5
()		(d) Vitamin D	79 Which river is notorious	for sh
63 T	he process of purification	n of blood in a human body	(a) Son	(b) (
	alled:	5	(c) Kosi	(d) (
(a)	Dialysis	(b) Haemolysis	80 'Pat' region is situated in	
(c)	Osmosis	(d) Paralysis	(a) Bihar (c) Madhya Pradesh	(b) J (d) I
		ed by a turbine and dynamo,		
	ich energy is converted i		(a) 4 February, 1975	(b) 1
	0,	(b) Solar energy(d) Magnetic energy	(c) 10 July, 1992	(d) 1
		(d) Magnetic energy	82 Manas river is a tributary	
	/ hich type of lens is usec Concave	00	(a) Godavari	(b) I
()		(b) Convex (d) Both (a) and (b)	(c) Krishna	(d) I
			83 Which state has the max	
	perature?	metals is liquid at normal	(a) Kerala	(b) (
	Lead (b) Mercury (c)	Nickel (d) Tin	(c) West Bengal	(d) 1
	which of the following is		(a) Kaveri	samud (b) I
	Diamond	(b) Glass	(c) Godavari	(d)
. ,	Quartz	(d) Platinum	85 On the bank of the Gang	
68 W	hich is known as dry ic	e?	(a) Varanasi	(b) I
	Dehydrated Ice		(c) Kanpur	(d) /
	Natural ice falling over n	nountains	86 The urban population of I	ndia is
()	Solid Carbon Dioxide		population. (a) 25.72 (b) 31.86 (c)	a)))'
(d)	Solid Carbon Monoxide		(a) 25.72 (b) 31.86 (c) 22.2

69	Which of the following is	used in making soap?
	(a) Vegetable Oil	(b) Mobil Oil
	(c) Kerosene	(d) Cooking Oil
70	The gas used for cooking	purpose is primarily:
	(a) Carbon Dioxide	(b) Nitrogen Oxide
	(c) Methane	(d) Nitrogen Dioxide
71	J	doctors in anaesthesia is:
	(a) Carbon Dioxide	(b) Nitrogen Oxide
	(c) Nitrous Oxide	(d) Nitrogen Dioxide
72		hrough vehicles is primarily:
	(a) Carbon Dioxide	(b) Carbon Monoxide
	(c) Marsh gas	(d) Nitrogen Oxide
73		
	(a) Citric acid	(b) Potassium chloride
	(c) Sodium Benzoate	(d) Sodium chloride
74	Which metal is used as a	÷
	(a) Iron(c) Silver	(b) Molybdenum (d) Tungston
	_	(d) Tungsten
/5	When was the first India	an satellite 'Aryabhata' was
	(a) 10 July 1992	(b) 19 April 1975
	(c) 1 November 1966	(d) 3 December 1985
76		
	(a) Africa	(b) Asia
	(c) Pacific Ocean	(d) Atlantic Ocean
77	Kilimanjaro is a:	
	(a) Igneous mountain	(b) Island
	(c) Peak	(d) River
78	J IJ	
) 52.51 (d) 43.56
79		-
	(a) Son (c) Kosi	(b) Gandak(d) Ganga
30		(u) Ganga
	(a) Bihar	(b) Jharkhand
	(c) Madhya Pradesh	(d) Meghalaya
81	When was the 'INSAT2A'	
	(a) 4 February, 1975	(b) 18 May, 1974
	(c) 10 July, 1992	(d) 19 April, 1975
B2	Manas river is a tributary	of:
	(a) Godavari	(b) Mahanadi
~~	(c) Krishna	(d) Brahmaputra
55	Which state has the maximum (a) Kerala	num density? (b) Uttar Pradesh
	(c) West Bengal	(d) Maharashtra
34		mudram Waterfall situated?
	(a) Kaveri	(b) Krishna
	(c) Godavari	(d) Mahanadi
85	On the bank of the Ganga	a the biggest city is:
	(a) Varanasi	(b) Patna
	(c) Kanpur	(d) Allahabad
56		dia is% of the total
	population. (a) 25.72 (b) 31.86 (c) 22.28 (d) 22.52
	(u) <u>20.7</u> (b) <u>51.00</u> (C	, <u>22.20</u> (u) <u>22.52</u>

87 Saran irrigation canal emerges from: (a) Son (d) Gandak (b) Ganga (c) Kosi **88** Malacca Strait provides communication to: (a) Indian Ocean to China Sea (b) Red Sea to Mediterranean Sea (c) Atlantic Ocean to Pacific Ocean (d) Mediterranean Sea to Black Sea **89** India's largest producer of cotton is: (a) Maharashtra (b) Gujarat (c) Punjab (d) Haryana 90 What percentage of land is taken from the old Bihar to create Iharkhand? (a) 38.40% (b) 45.85% (c) 42.35% (d) 55.72%**91** Which river flows through fault trough? (b) Son (a) Narmada (c) Godavari (d) Cauverit **92** The Son, Narmada and the Mahanadi originate from: (a) Palamu hills (b) Amarkantak (c) Eastern Ghat (d) Aravalli **93** Paradip is situated on: (a) Kerala (b) Maharashtra (d) Andhra Pradesh (c) Orissa **94** Which district of Bihar is the biggest? (a) Patna (b) Gaya (c) Darbhanga (d) Samastipur **95** Hirakud Dam is built on: (a) Narmada (b) Mahanadi (c) Godavari (d) Chambal **96** Jharkhand state was established in: (a) 1997 (b) 1998 (c) 1999 (d) 2000 **97** Maximum forest area in percentage is: (b) Himachal Pradesh (a) Arunachal Pradesh (c) Mizoram (d) Nagaland **98** Descending order of states in production of sugarcane: (a) Uttar Pradesh, Maharashtra, Andhra Pradesh, Punjab (b) Maharashtra, Uttar Pradesh, Bihar, Andhra Pradesh (c) Uttar Pradesh, Maharashtra, Tamil Nadu, Karnataka (d) Maharashtra, Uttar Pradesh, Bihar, Tamil Nadu **99** The total population of the new state of Bihar is: (a) 64.434 Million (b) 86.374 Million (d) 70.562 Million (c) 72.325 Million **100** The urban population of Bihar is_ % of the total population. (d) 21.56 (a) 10.76% **(b)** 13.14% **(c)** 12.86 **101** Which of the following state receives winter rainfall? (b) Tamil Nadu (a) Kerala (c) West Bengal (d) Orissa **102** Fiji island is situated in: (a) Atlantic Ocean (b) Pacific Ocean (c) Indian Ocean (d) Arabian Sea **103** 'Planet' which has no any satellite is: (a) Mars (b) Mercury (c) Neptune (d) Uranus 104) 'Gulf-Stream' is a /an: (a) River in a bay (b) Oceanic current (c) Second name of Jet Stream (d) Surface wind

105 The Oil and Natural Gas Commission was established in: (b) 1914 (a) 1856 (c) 1936 (d) 1956 106 How many constellations are there in our space? (c) 89 **(b)** 88 (d) 90 (a) 87 **107**) The time taken by Saturn to revolve around the Sun is: (a) 18.5 years (b) 36 years (c) 29.5 years (d) 84 years 108) In Maharashtra and Karnataka, the Western Ghats are called: (a) Nilgiri Mountain (b) Sahvadri (c) Deccan Plateau (d) None of these 109 When was the Damodar Valley Corporation been established? (a) 1950 (b) 1954 (c) 1948 (d) 1947 10 Which planet is known as the 'Evening Star'? (a) Mars (b) Jupiter (c) Venus (d) Saturn **III**) The 'Cycle of Erosion' is transformed by this scientist: (a) Penck (b) Davis (c) Hutton (d) Dutton **112** Oil-refinery plant in Bihar is at: (a) Singhbhum (b) Rudrasagar (c) Barauni (d) Ranchi An Eskimo is an inhabitant of: (a) Canada (b) Mongolia (c) Malaya (d) Sri Lanka 114 Which is known as the 'Roof of the World'? (a) Aravalli (b) Satpura (c) Pamir (d) Myanmar 115 Which is known as 'Ragur'? (a) Red Soil (b) Alluvial Soil (c) Black Soil (d) Laterite Soil **116**) If a 13, b = 14 and c = 15, then the value of tan c/2 is: (a) 1/2 **(b)** 2/3 (c) 4/7 (d) 1/7 117) Which of the following statements is false? (a) Every negative number has a square (b) No square root of negative number (c) $-\infty$ is a negative number (d) -p is a non-algebraic number 118 For the data (1, 6) (2, 9), (3, 6), (4, 7), (5, 8), (6, 5), (7, 12), (8, 3), (9, 17), (10, 1) covariance is: (a) 0.4 (d) 6 **(b)** 0.6 (c) 4 **119** If y = |x| ($x \neq 0$) then dy/dx is: (a) |x|/x**(b)** 1 (c) s/|x|(d) -1 120 Which of the following statement is false? (a) Mathematical work Laghu Bhaskraiya was written by Bhaskar I (b) Patigonit is also in Vakshali inscription (c) Decimal System is invented by the European (d) Ganit tilak is a creation of Eleventh Century **121** Find the value of 13°12′ from following: (d) 11/45 (a) 11/150 (b) 13/150 (c) 6/125 122) 'Pygmies' are the inhabitants of: (a) Africa (b) Asia (c) Australia (d) South Africa **123** Which is not the source of agriculture finance in India? (a) Co-operation Boards (b) Commercial Banks (c) Regional Rural Banks (d) None of these

 Which is not the source of industrial finance in India? (a) Indian Industrial Finance Corporation (b) NABARD (c) State Financial Corporation (d) Unit Trust of India 	 Which sector of Indian economy contribution, maximum in gross Domestic products? (a) Primary Sector (b) Secondary Sector (c) Tertiary Sector (d) Public Sector
 (d) Unit Trust of India 125 In which year was Indian currency devaluated two times in a month? 	 Which is the highest bank in the banking system of India? (a) SBI (b) RBI (c) CBI (d) IDBI
 (a) 1990 (b) 1991 (c) 1994 (d) 1999 (d) 1999 (d) 1999 (e) 126 (f) 126 (f) 1991 (g) 1991 (h) 1994 (h) 1999 (h) 1994 (h) 1999 (h) 1991 (h) 1991 (h) 1991 (h) 1991 (h) 1991 (h) 1991 (h) 1994 (h) 1999 (h) 1999 (h) 1991 (h) 1994 (h) 1999 (h) 1991 (h) 1991<td>141 Which tax is levied and collected by the Union Government but distributed between Union and the Sates?</td>	141 Which tax is levied and collected by the Union Government but distributed between Union and the Sates?
(a) First Plan(b) Second Plan(c) Fourth Plan(d) Annual Plan	(a) Import Duty(b) Central Excise Duty(c) Export Duty(d) None of these
127The highest mountain peak of India is:(a) Mt. Everest(b) Kanchenjunga(c) Godwin Austin(d) Nanga Parbat	 In India, National Account estimates are collected by: (a) Indian Statistical Institute (b) Central Statistical Organisation
128 The earth is surrounded by envelope of gases, it is known as:	(c) Planning Commission(d) Federation of Indian Chambers of Commerce and
(a) Lithosphere(b) Water particles(c) Atmosphere(d) Hydrosphere	Industries 143 From which country does maximum bilateral aid
 (a) 84 years (b) 36 years (c) 18 years (d) 48 years 	come for India? (a) USA (b) Japan (c) OPEC (d) England
130 Palamu (Ranchi) is famous for this mineral:	144 Equation $x = 5 + 3 \cos \alpha$ and $y = 7 + 3 \sin \alpha$, jointly
(a) Iron-ore(b) Copper-ore(c) Manganese-ore(d) Bauxite-ore	is: (a) Parabola (b) Circle (c) Humanhala (d) Pained lines
 As under farming area in India, which crop is most important? (a) Wheat (b) Maize (c) Barley (d) Rice 	 (c) Hyperbola (d) Paired lines
132 The percentage of total forest area as compared to geographical area of Bihar is:	complementary (b) The diagonals of a rhombus are bisect each other at right angle.
(a) 32% (b) 21% (c) 19% (d) 31%	(c) The diagonals of any quadrilateral are bisect each other, the shape is of parallelogram
(a) 95 lakh hectare(b) 85 lakh hectare(c) 89 lakh hectare(d) 89.9 lakh hectare	(d) In every triangle there should be one acute angle at most. 146 Set $\{x : x = x + 1\}$ is:
134 Which of the following districts is not located in Jharkhand?	(a) Set of real numbers (b) Set of mixed number
(a) Godda (b) Ranchi	(c) Set of prime numbers (d) Empty (null) set
(c) Bokaro (d) None of these	147 Select the correct statement:
135 What was the percentage of urban population in Bihar as per the 1991 Census?	(a) $ Z_1 + Z_2 \le Z_1 + Z_2 Z_1, Z_2 \in C$ (b) $ x = \{x, x, \ge 0, -x, x < 0, X \in R\}$
(a) 13.14% (b) 14.13% (c) 10.03% (d) 23.17%	(c) $i = \sqrt{-1}$ is a real number
(c) 10.03% (d) 23.17% 136 Which is the main cash crop of Bihar?	(d) 0.1234567is a rational number
(a) Tea (b) Rubber	148 Surya Temple is situated in which of the following
(c) Sugarcane (d) Coconut and coffee	cities?
137 Which town of Bihar is famous for wildlife sanctuary and national park?	(a) Gaya(b) Bodhgaya(c) Deo(d) Ranchi
(a) Hazaribagh (b) Nalanda (c) Gaya (d) Jamshedpur	149 In which of the following cities did Japanese build a World Peace Stupa?
 (138) In India, the issuing of notes is based on: (a) Proportional Reserve System 	(a) Deo(b) Rajgir(c) Gaya(d) Bodhgaya
(b) Minimum Reserve System	150 The birth rate in Indian Economy given by 1991
(c) Constant Exchange System	(a) 30 per thousand (b) 27 per thousand
(d) Full Convertibility System	(c) 19 per thousand (d) 10 per thousand (d) 10 per thousand

ANSWERS WITH **EXPLANATION**

1 Option (c) is correct.

Explanation:

• Sheikh Nizamuddin Auliya, also known as Hazrat Nizamuddin, was a renowned Sufi saint belonging to the Chishti order during the time when Gaiyasuddin Tughlaq ruled.

• It is well-known that Sheikh Nizamuddin Auliya and Ghiyasuddin Tughlaq had a strained relationship.

2 Option (c) is correct.

Explanation: Sher Shah, the founder of the Sur Empire in the northern region of the Indian subcontinent, played a significant role in shaping the history of the era.

• After successfully defeating Nusrat Shah, the Sultan of Bengal, during an attack on south Bihar, Sher Shah established his authority as the de facto ruler of the region. In recognition of his accomplishments, he assumed the esteemed title of Hazrat-e-Ala.

3 Option (b) is correct.

Explanation:

• Firoz Shah Tughlaq has lots of intrest in gardening. Due to his interest in gardening he has planted 1200 new gardens near Delhi. He introduced measures for improving the quality of fruits.

• He also renovated atleast 30 gardens planted by Allauddin Khilji.

4 Option (c) is correct.

Explanation:

• The Chalcolithic Age, often referred to as the Copper Age, serves as a transitional period connecting the Neolithic era to the Bronze Age.

• It is typically recognized as commencing in the mid-5th millennium BC and concluding with the onset of the Bronze Age in the late 4th to 3rd millennium BC.

• During this time, various farming communities, such as Kayastha, Ahar or Banas, Malwa, and Jorwe, emerged, representing the Chalcolithic culture.

• In the Indian context, this age is believed to have existed between approximately 2000 BC and 700 BC.

5 Option (b) is correct.

Explanation:

• During the period when Alexander the Great sought to confront rulers in the northwestern region of India, the Nanda Dynasty held dominion over India.

• It was Dhanananda, the final ruler of this dynasty, who was engaged in conflict with Alexander.

• Finally, along with Chanakya, he was overthrown by Chandragupt Maurya, leading to the establishment of the Maurya Dynasty in Magadha.

6 Option (d) is correct.

Explanation:

• After the Maurayan dynasty, the Shunga dynasty was founded by Pushyamitra Shunga and held control over the region of Magadha from 185 BCE to 73 BCE.

- This dynasty was characterized by three notable rulers: Pushyamitra Shunga, Agnimitra, and Devabhuti.
- The capital city of the Shunga dynasty was Pataliputra.

7 Option (a) is correct.

Explanation:

- Self-infiction is also known as self-mortification.
- Buddhism and Jainism are both ancient religions that originated in ancient India.
- Buddhism revolves around the teachings of Gautama Buddha, while Jainism is centered on the teachings of Mahavira.

8 Option (d) is correct.

Explanation:

• King Udayin, a ruler of the Haryanka dynasty, governed the region of Magadha in India from 460 BCE to 440 BCE.

• He was the son of Ajatashatru and played a significant role in establishing Pataliputra as the capital of Magadha.

9 Option (c) is correct.



• A first Buddhist council took place in the Sattapani cave located at Rajgriha. It was led by Mahakasyapa, a respected monk, and had the support of King Ajatashatru.

• The main objective of this council was to safeguard the teachings (Sutta) and rules for disciples established by Buddha. As part of this council, Buddha's teachings were organized into three Pitakas.

10 Option (d) is correct.

Explanation:

• Sikandar Lodi, reigning from 1489 to 1517, held the position of Sultan of Delhi. During his rule, he successfully expanded the Lodi territory to encompass regions such as Gwalior and Bihar.

 In 1503, Sikandar Lodi commissioned the construction of the city of Agra, thus establishing its foundation under his leadership.

11 Option (b) is correct.

Explanation:

• In 1759, Shah Alam II assumed control of the Mughal Empire. He was a leader of notable capability and possessed considerable courage.

• However, during the early years of his reign, Shah Alam II lived in constant apprehension of his own wazir Gaziuddin, which led him to wander far from his capital city. This fear caused him to spend a significant amount of time relocating from place to place.

12 Option (b) is correct.

Explanation: The Battle of Swally, also called the Battle of Suvali, was a sea battle that happened on November 29, 1612, near the village of Suvali, which is near the city of Surat in the Indian state of Gujarat. Both the British East India Company, led by Captain Thomas Best, and the Portuguese fought in the fight.

13 Option (b) is correct.

Explanation:

• The First Carnatic War, occurring from 1746 to 1748, involved two primary factions: on one side, there was the Governor of France, Duple ix, and the Nawab of Karnataka, while on the other side, there was the Governor of the English East India Company.

• The root cause of this conflict in India was the larger war of succession for Austria in Europe between England and France.

• Following the war, the Treaty of Aix-la-Chapelle was signed in 1748.

14 Option (b) is correct.

Explanation:

• The Act of 1786, introduced by Pitt and successfully passed in the same year, served as a supplementary bill.

• This act led to the appointment of Lord Cornwallis as the inaugural Governor-General, granting him the position of the de facto ruler of British India under the jurisdiction of the Board of Control and the Court of Directors.

15 Option (a) is correct.

Explanation:

• The initial Round Table Conference, led by Prime Minister Ramsay MacDonald of the Labour Government, took place from 12th November 1930 to 19th January 1931 in London. The conference was formally inaugurated by His Majesty George V on 12th November 1930 in the Royal Gallery House of Lords in London.

• The Indian National Congress and many business leaders chose to boycott the conference. While several organizations, including the Muslim League (Maulana Mohammad Ali), the Hindu Mahasabha, the Liberals, and princely representatives, participated in it.

16 Option (d) is correct.

Explanation: During the Calcutta session of 1906, under the guidance of Dadabhai Naoroji, the Indian National Congress adopted 'Swaraj' as the ultimate goal for the Indian people.

17 Option (d) is correct.

Explanation:

• Raja Shitab Rai was appointed as the Deputy Diwan of Bihar (also known as Naib Diwan of Bihar) by the British East India Company under the supervision of Robert Clive.

• In order to carry out the administrative functions of the Diwani, the British East India Company appointed two individuals as deputy Diwans: Mohammad Raza Khan for Bengal and Raja Sitab Roy for Bihar.

18 Option (a) is correct.

Explanation:

• On October 17, 1940, Mahatma Gandhi, revered as the Father of the Nation, selected Acharya Vinoba Bhave as

the first satyagrahi, advocating the practice of satyagraha, followed by Jawaharlal Nehru as the second participant.

• The British Colonial government had unilaterally involved India in the Second World War, disregarding the consent of the Indian populace. In response to this decision made by the foreign government, the Congress party made the decision to initiate individual satyagraha as a means of opposition.

19 Option (a) is correct.

Explanation:

 In March 1942, a delegation led by Stafford Cripps was dispatched to India to present constitutional proposals to garner Indian support for the war effort.

• The mission put forth the proposition that India as a whole would become a Dominion, and following the war, its constitution would be formulated by an elected body, subject to approval by the British Government.

• Gandhi, however, criticized Cripps' offer of Dominion Status after the war, comparing it to a "post-dated cheque drawn on a failing bank."

20 Option (c) is correct.

Explanation:

• The Quit India Movement, alternatively referred to as the India August Movement or Bharat Chodo Andolan, was inaugurated during the Bombay session of the All India Congress Committee.

• On 8 August 1942, Mahatma Gandhi led the launch of this movement with the primary objective of demanding an end to British colonial rule in India.

21 Option (a) is correct.

Explanation:

 The All India Forward Bloc (AIFB) is a political party with left-wing nationalist ideology that was founded by Subhas Chandra Bose in West Bengal in 1939.

• Subhas Chandra Bose established the Forward Bloc within the Indian National Congress (INC) on May 3, 1939.

22 Option (d) is correct.

Explanation: On 12 March 1930, Mahatma Gandhi initiated the historic Dandi March, embarking on a journey that covered a distance of approximately 385 km from his Sabarmati Ashram in Ahmedabad to Dandi, a coastal town in Gujarat.

23 Option (d) is correct.

Explanation:

 Dr. Sachchidananda Sinha, often hailed as Architect of Modern Bihar, played a pivotal role in shaping the state's modern landscape.

• He served as the inaugural President of the Indian Constitutional Assembly responsible for crafting the Constitution of India.

• In the year 1910, Dr. Sinha secured a seat in the Bengal Legislative Council, where he vehemently advocated for the establishment of a distinct province for Bihar. His impassioned pleas and unwavering commitment eventually convinced Ali Imam to join the Governor General's Executive Council, enabling them to present a compelling case for Bihar's separate identity.

24 Option (a) is correct.

Explanation: Dr. Rajendra Prasad was associated with the Kisan Movement in Bihar. He was the President of the Constituent Assembly.

25 Option (c) is correct.

Explanation:

• The first sitting of Congress Socialist Party was held in Patna.

• Jai Prakash Narayan, Ram Manohar Lohia, and Acharya Narendra Deva were the founding members of this party, which operated as a socialist faction within the Congress Party. Its formation stemmed from ideological divergences with Mahatma Gandhi, prompting its members to pursue independence and socialism as their dual objectives.

26 Option (d) is correct.

Explanation:

• The renowned national song of India, 'Vande Mataram,' holds its origins in the creative genius of Bankim Chandra Chatterjee. This patriotic song was extracted from his literary work called "Anand Math", which also portrays the Sanyasi revolt. Bankim Chandra Chatterjee composed the song in the Bengali language in the year 1882.

• It was first publicly sung during the Congress session held in Calcutta in 1896, with Rahimtulla M. Sayani served as the President of the session.

27 Option (d) is correct.

Explanation:

• Tilak fervently declared, "Swaraj is my birthright, and I will attain it", during the Lucknow session of the Indian National Congress in 1916.

• The session marked the reintegration of the Extremists into the Congress, leading to the signing of the "Lucknow Pact" through the collaborative efforts of Tilak and Annie Besant.

28 Option (a) is correct.

Explanation:

• The inaugural session of the Indian National Congress took place in Bombay from December 28 to 31, 1885. This significant event was initiated by Allan Octavian Hume, a retired Civil Service officer.

• Womesh Chandra Banerjee assumed the role of the first the President of the Congress.

29 Option (a) is correct.

Explanation:

• The concept of dividing Bengal was proposed during Lord Curzon's tenure as a means of improving administrative efficiency. The British government justified the partition by claiming that smaller states could be governed more effectively. However, the true motive behind the partition was to disrupt the unity between Hindus and Muslims.

• The partition of Bengal was implemented on October 16, 1905.

30 Option (c) is correct.

Explanation: In 1885, the Indian National Congress convened its inaugural session in Bombay, which was organized under the leadership of Allan Octavian Hume, a retired Civil Service Officer.

31 Option (d) is correct.

Explanation:

• Gopal Krishna Gokhale was born on May 9, 1866, in Kotluk village, located in present-day Maharashtra, which was part of the Bombay Presidency at the time. He hailed from a Brahmin family.

• Gokhale aligned himself with the Moderate Group within the Indian National Congress and joined the party in 1889. His notable achievement came in 1905 when he assumed the presidency of the Indian National Congress during the Benaras session.

32 Option (a) is correct.

Explanation: In March 1931 Mahatma Gandhi suspended the Civil Disobedience Campaign and agreed to attend the Second Round Table Conference in London, from where he returned empty-handed to India.

33 Option (a) is correct.

Explanation:

• The Gandhi-Irwin Pact was formally signed on March 5, 1931, between Mahatma Gandhi and Viceroy Lord Irwin. This significant agreement marked a turning point in the Indian freedom struggle.

• Under the terms of the pact, Gandhi pledged to cease the civil disobedience movement, a powerful nonviolent resistance campaign against British rule in India. In exchange for Gandhi's commitment to end the movement, the British government agreed to allow him to participate in the second Round Table Conference.

34 Option (a) is correct.

Explanation: The Non-Cooperation Movement was initiated in 1920 as a significant chapter in India's struggle for independence. The leader of this movement was Mahatma Gandhi, who played a pivotal role in mobilizing the masses. The movement gained widespread support from nationalists and the general public alike.

• It was founded on the principle of non-violence, urging Indians to relinquish their titles, boycott government educational institutions, refrain from participating in government service, avoid purchasing foreign goods, and eventually refuse to pay taxes.

35 Option (b) is correct.

Explanation: Dr. Rajendra Prasad, born on December 3, 1884, in Ziradei, Siwan district of Bihar, was the first President of Independent India, serving from 1950 to 1962.

36 Option (d) is correct.

Explanation: During the Quit India Movement of August 1942, Jayaprakash Narayan, together with Ram Manohar Lohia and Aruna Asaf Ali, assumed leadership of the ongoing protest in the absence of the senior leaders who had been arrested.

37 Option (d) is correct.

Explanation:

• Birsa Munda was born on November 15, 1875, in the Munda tribe residing in the Chotanagpur Plateau region. As the British rule intensified, Birsa Munda developed a deep resentment towards the British administration.

• He voiced his demand for the establishment of Munda Raj, aiming to expel missionaries, moneylenders, Hindu landlords, and the government from the region.

38 Option (a) is correct.

Explanation:

• In 1853, the inaugural journey of the first passenger train between Bori Bandar (Mumbai) and Thane marked a significant milestone in India's railway history.

• The development of this railway line connecting Bombay to Thane took place during the tenure of Lord Dalhousie (1848-1856), who served as the Governor-General of India. It was under his administration that the foundation for this railway project was laid, resulting in the commencement of regular train services between these two locations.

39 Option (b) is correct.

Explanation:

• On March 22, 1912, the province of Bihar and Orissa was established as a separate entity following the enactment of The Bengal, Bihar and Orissa and Assam Laws Act, 1912. This significant event led to the celebration of March 22 as the Foundation Day of Bihar.

• Later, on April 1, 1936, Bihar and Orissa became distinct provinces under the provisions of the Government of India Act, 1935.

• Furthermore, in the year 2000, the region of Jharkhand was carved out of Bihar, leading to the formation of a separate state.

40 Option (b) is correct.

Explanation: The president has the power to nominate members from the Anglo-Indian community in the Lok Sabha. In the article 331, 2 Anglo-Indian members nominated by President in Lok Sabha. By the 31st amendment act, a total of 545 members in the parliament is fixed.

• In January 2020, the Anglo-Indian reserved seats in the Parliament and State Legislatures of India were discontinued by the 126th Constitutional Amendment Bill of 2019, when enacted as the 104th Constitutional Amendment Act, 2019.

41 Option (b) is correct.

Explanation: The Prime Minister of India, as addressed in the Constitution of India, is the chief executive of the government and the leader of the majority party that holds a majority in the Lok Sabha. The Prime Minister leads the executive of the Government of India.

• The Prime Minister serves as the principal advisor to the President of India and holds the position of the head of the Union Council of Ministers.

42 Option (b) is correct.

Explanation:

• The President is chosen through an indirect election process. This involves an electoral college comprising

elected members from both houses of Parliament, elected members from the State Legislative Assemblies of all States, and elected members from the legislative assemblies of two Union Territories (Puducherry and Delhi).

• To elect the President, a proportional representation system is utilized, specifically the single transferable vote method. The Constitution outlines the procedure for the election of the President in Article 55.

43 Option (a) is correct.

Explanation: In the context of India, the upper house of the State Legislatures is known as the Legislative Council. At the state level, the equivalent of the Lok Sabha is the Vidhan Sabha or Legislative Assembly; that of the Rajya Sabha is the Vidhan Parishad or Legislative Council.

• Legislative Council is in those states with bicameral legislatures.

• At present, only six states of our country have a legislative council. They are Andhra Pradesh, Telangana, Karnataka, Maharashtra, Bihar, and Uttar Pradesh.

44 Option (a) is correct.

Explanation:

• The Panchayati Raj Institutions were granted Constitutional status through the 73rd Constitutional Amendment Act of 1992, also referred to as the Constitution (Amendment) Act, 1992.

• This amendment introduced Part IX to the Indian Constitution, which encompasses provisions pertaining to Panchayati Raj Institutions (PRIs).

45 Option (b) is correct.

Explanation:

• The Constitution of India grants Fundamental Rights to its citizens, which are outlined in Part III of the Constitution. These rights are protected and enumerated in Articles 12 to 35.

• The Fundamental Rights encompass various essential entitlements for citizens, crucial to the well-being and safeguarding of individuals within the nation.

• These rights are considered foundational in a democratic system, playing a vital role in ensuring the protection and welfare of citizens in India.

46 Option (c) is correct.

Explanation:

• In 1976, the Indian Parliament established the Sardar Swaran Singh Committee to provide recommendations on the inclusion of Fundamental Duties within the Indian Constitution.

• The urgency to introduce Fundamental Duties arose during the period of the internal emergency (1975-1977).

• The committee proposed the addition of a distinct chapter on Fundamental Duties to the Constitution. Consequently, the Congress-led government at the Center accepted these recommendations and enacted the 42nd Constitutional Amendment Act in 1976.

• This amendment introduced a new part, known as Part IVA, which incorporated the Fundamental Duties into the Constitution.

47 Option (a) is correct.

Explanation:

• As per Article 76 of the Indian Constitution, the President shall appoint a person who is qualified to be appointed a Judge of the Supreme Court to be Attorney-General for India.

• He is the highest law officer of the country and is responsible for providing legal advice to the government.

• The President of India appoints the Attorney General based on the recommendations of the Council of Ministers.

48 Option (b) is correct.

Explanation:

• According to Article 316 of the Indian Constitution, the President is responsible for appointing the Chairman and other members of the Union Public Service Commission (UPSC).

• In the event of a vacancy in the position of the Chairman, one of the other members of the Commission may be appointed by the President to fulfil the Chairman's duties temporarily.

49 Option (c) is correct.

Explanation: The judges of Supreme Court are appointed by the President after consultation with the Chief Justice and such other judges of the supreme court and the high courts.

• The Parliament has authority to decide the number of Judges in the Supreme Court.

50 Option (b) is correct.

Explanation: Judicial Review is a power exclusively held by the Judiciary and is not vested in the Panchayati Raj Institution.

51 Option (d) is correct.

Explanation:

• Panchayati Raj in India signifies the decentralization of powers, active participation of people, and the promotion of community development.

• It is a system aimed at empowering local self-government at the grassroots level. The Panchayati Raj institutions act as a platform for local governance, allowing citizens to actively engage in decision-making processes and take charge of their own development.

52 Option (c) is correct.

Explanation: Solar energy is generated through the process of nuclear fusion occurring within the sun. This form of energy is crucial for sustaining life on Earth and can be harnessed to fulfil various human needs, including electricity production.

53 Option (d) is correct.

Explanation:

• Sublimation is the scientific phenomenon where a solid substance directly converted into a vapor state without undergoing the intermediate liquid phase.

■ Some examples of substances that exhibit sublimation include Naphthalene, Ammonium Chloride (NH₄Cl), Camphor, Iodine, etc.

54 Option (b) is correct.

Explanation: Bihar is known for its abundant reserves of coal and iron ore. However, with the formation of Jharkhand as a separate state, many of the iron ore and

coal mines that were previously located in Bihar now fall within the borders of Jharkhand.

55 Option (a) is correct.

Explanation:

• Black soil is predominantly found in the plateaus of Saurashtra and Malwa, but it is also present in other states such as Chhattisgarh, Gujarat, Madhya Pradesh and Andhra Pradesh.

• This type of soil is commonly referred to as Regur soil or black cotton soil due to its dark color and high fertility.

56 Option (b) is correct.

Explanation:

• The Korba Coalfield is situated in the state of Chhattisgarh, India. It is specifically located in the Korba district, adjacent to the Hasdeo River. The Hasdeo River is a tributary of the Mahanadi River.

• The coal mining operations in Korba commenced in 1941, and the production significantly increased following the establishment of the Champa-Korba rail link in 1955.

57 Option (b) is correct.

Explanation:

• The Gaddi Tribe is an Indo-Aryan semi-pastoral ethno-linguistic group.

• Primarily residing in the Indian states of Himachal Pradesh and Jammu and Kashmir, the tribe derives its name from the native word "Garden" in Himachal Pradesh, which translates to "the home of the Gaddis".

• The Gaddi Tribe, considered a scheduled tribe, is predominantly found in Bharmouri of the Chamba district. They possess a distinct culture, language, attire, cuisine, marriage customs, and religious celebrations.

58 Option (d) is correct.

Explanation:

• Photosynthesis is a vital biological process in which green plants utilize sunlight, carbon dioxide, and water to synthesize carbohydrates or food.

• During this process, oxygen is released as a by product, originating from the splitting or hydrolysis of water within the green plants. In the presence of sunlight, green plants employ water as a hydrogen donor to convert carbon dioxide into carbohydrates.

59 Option (b) is correct.

Explanation:

• Germanium is the metalloid that is commonly used as a semiconductor material in transistors. It is particularly suited for this purpose due to its unique electrical properties.

• Germanium is a crystalline element with four valence electrons, making it an ideal element for controlling the flow of electric current in transistors.

60 Option (c) is correct.

Explanation:

• Enzymes are responsible for catalyzing chemical reactions in biotic systems. Enzymes are biological catalysts that facilitate and accelerate chemical reactions within living organisms.

• Enzymes play a crucial role in various biological processes, including metabolism, digestion, DNA replication, and many other essential biochemical reactions that occur within living organisms.

61 Option (d) is correct.

Explanation:

• The loss or dysfunction of insulin-producing cells in the pancreas is primarily responsible for diabetes in humans. In diabetes, the immune system mistakenly attacks and destroys the insulin-producing beta cells in the pancreas.

• This results in a significant reduction or complete loss of insulin production. As a result, the body is unable to regulate blood sugar levels effectively.

62 Option (c) is correct.

Explanation:

• The vitamin found in citrus fruits that is vital for the health of the skin is vitamin C. Citrus fruits such as oranges, lemons, grapefruits, and limes are excellent sources of vitamin C.

• This vitamin plays a crucial role in the synthesis of collagen, a protein that helps maintain the elasticity and integrity of the skin. Vitamin C also acts as an antioxidant, protecting the skin from damage caused by free radicals and promoting overall skin health.

63 Option (a) is correct.

Explanation:

• Dialysis is a medical procedure utilized for patients experiencing kidney dysfunction or failure. It involves the use of a machine to filter and purify the blood. Dialysis is essential to maintain the balance of fluids and electrolytes when the kidneys are unable to perform their function adequately.

• This treatment has been employed since the 1940s as a means to address kidney-related issues.

• Hence, dialysis serves as the process through which blood is purified in the human body.

64 Option (c) is correct.

Explanation: The energy converted into electrical energy in the process of generating electricity using a turbine and dynamo is primarily mechanical energy. In a turbine generator, a moving fluid—water, steam, combustion gases, or air—pushes a series of blades mounted on a rotor shaft. The force of the fluid on the blades spins/ rotates the rotor shaft of a generator.

65 Option (b) is correct.

Explanation:

• The type of lens commonly used in reading glasses is a convex lens. A convex lens is thicker in the middle and thinner at the edges, causing it to converge light rays towards a focal point. This design helps in correcting presbyopia.

• By using a convex lens in reading glasses, the lens helps to focus light onto the retina, allowing for clearer vision when reading or viewing objects up close.

66 Option (b) is correct.

Explanation:

• The metal that is liquid at normal temperature is Mercury.

• Mercury is the only metal that is typically found in a liquid state at room temperature. It has a low melting point of -38.83 degrees Celsius (-37.89 degrees Fahrenheit), which allows it to remain in a liquid form under normal conditions.

67 Option (a) is correct.

Explanation:

• Diamond is renowned for its exceptional hardness and is considered the hardest naturally occurring substance on Earth.

• It ranks as a 10 on the Mohs scale of mineral hardness, which is a standard scale used to measure the relative hardness of minerals.

68 Option (c) is correct.

Explanation:

• Dry ice is known as Solid Carbon Dioxide. It is called "dry ice" because it does not melt into a liquid like regular ice. Instead, it sublimates, transitioning directly from a solid to a gas without going through the liquid phase.

• Dry ice is commonly used for cooling purposes, in the transportation of perishable goods, in creating special effects in the entertainment industry, and in various scientific applications.

69 Option (a) is correct.

Explanation:

• Vegetable oil, such as coconut oil, palm oil, or olive oil, is commonly used in the production of soap.

• The process of making soap, known as saponification, involves combining fats or oils with an alkali, such as sodium hydroxide to produce soap molecules and glycerin through a chemical reaction.

• Vegetable oils are often chosen for their fatty acid composition and the desirable qualities they impart to the soap, such as lathering, cleansing, and moisturizing properties.

70 Option (c) is correct.

Explanation:

• The gas primarily used for cooking purposes is Methane. Methane is a hydrocarbon gas and the primary component of natural gas, which is widely used as a fuel for cooking, heating, and other domestic applications.

• It is highly combustible and releases a significant amount of heat energy when burned, making it suitable for cooking purposes.

71 Option (c) is correct.

Explanation:

• The laughing gas used by doctors in anaesthesia is Nitrous Oxide.

Nitrous oxide, also known as laughing gas, is a colourless and odourless gas that is used as an anaesthetic during medical procedures. It has both anesthetic and analgesic properties, providing pain relief and inducing a state of relaxation.

72 Option (b) is correct.

Explanation:

• The polluted gas emitted primarily through vehicles is Carbon Monoxide. Carbon Monoxide is a colourless and odourless gas that is produced by incomplete combustion of fossil fuels, such as gasoline, diesel, and natural gas, in vehicle engines.

• It is a harmful pollutant as it binds to haemoglobin in the bloodstream, reducing the oxygen-carrying capacity and potentially leading to carbon monoxide poisoning. Carbon monoxide emissions from vehicles are a significant contributor to air pollution and can have detrimental effects on both human health and the environment.

73 Option (c) is correct.

Explanation:

• Sodium Benzoate is a commonly used food preservative that helps inhibit the growth of bacteria, yeast, and fungi in various edible products. It is effective in extending the shelf life of foods and preventing spoilage.

• Sodium Benzoate works by reducing the pH level, making the environment less favorable for microbial growth. It is widely used in various food and beverage products, including sauces, dressings, carbonated drinks, pickles, and jams.

74 Option (d) is correct.

Explanation: The metal used as a filament in a light bulb is Tungsten. Tungsten has a very high melting point and is highly resistant to heat, making it ideal for use as a filament in incandescent light bulbs.

75 Option (b) is correct.

Explanation:

• The first Indian satellite, 'Aryabhata,' was launched on April 19, 1975. It was India's first satellite in space and was named after the ancient Indian mathematician and astronomer, Aryabhata.

 It was built by the Indian Space Research Organisation, and launched by the Soviet Union as a part of the Soviet Interkosmos programme which provided access to space for friendly states.

76 Option (c) is correct.

Explanation:

• The International Date Line crosses over the Pacific Ocean.

• The International Date Line is an imaginary line that roughly follows the 180 - degrees longitude line in the Pacific Ocean. It serves as the demarcation between two consecutive calendar days.

• When crossing the International Date Line from east to west, it typically results in moving the clock back by one day, while crossing from west to east moves the clock forward by one day. This line helps to maintain uniformity in timekeeping and prevent discrepancies caused by the Earth's rotation.

77 Option (c) is correct.

Explanation:

 Mount Kilimanjaro, located in Tanzania, is a dormant volcano with three volcanic cones: Kibo, Mawenzi, and Shira. • It holds the distinction of being the highest mountain in Africa as well as the highest single free-standing mountain globally, reaching an elevation of 5,895 meters (19,341 feet) above sea level and approximately 4,900 meters (16,100 feet) above its plateau base.

78 Option (b) is correct.

Explanation:

• According to the 2001 census, literacy rate of Bihar was 47.25 percent.

• According to the Census of India in 2011, the literacy rate in Bihar was recorded as 61.80 percent. The male literacy rate in Bihar stood at 70.32 percent, while the female literacy rate was 53.57 percent.

• These figures indicate a lower literacy rate in Bihar compared to the national average, which was reported at 72.9 percent overall.

79 Option (c) is correct.

Explanation:

• The river Kosi, renowned for its ever-changing course, originates from Gosai Dham in the Himalaya Mountains.

• It is formed by the convergence of seven streams in the Himalayan region. The primary stream of Koshi, called Arun, originates north of Mount Everest in Tibet. The river is also known by the name Kaushiki.

• Its tendency to frequently change its course has earned it the nickname "the sorrow of Bihar".

80 Option (b) is correct.

Explanation:

• In the Chotanagpur plateau of Jharkhand, mesas are commonly referred to as "pats" or patland. The region is home to several examples of lava-capped mesas, such as Jamira Pat, Netarhat Pat, Bagru Pat, Khamar Pat, Raldami Pat, and Lota Pat.

• Mesas are distinctive hills with a flat and uniform top surface, surrounded by steep slopes on all sides.

81 Option (c) is correct.

Explanation:

• INSAT 2A was the first Indian multipurpose satellite. It was built in India launched on 10th July 1992 and came into operation in August 1992.

The mission of the satellite was meteorology, Satellite
 based search and rescue, and Multipurpose Communication such as telecommunication, broadcasting of television and disaster warnings.

82 Option (d) is correct.

Explanation:

• Manas River is a significant right-bank tributary of the Brahmaputra River. It flows through the Himalayan foothills, forming a trans-boundary river between southern Bhutan and India.

• Manas River valley is home to the Royal Manas National Park in Bhutan and the Manas Wildlife Sanctuary in India. After traversing through Bhutan and Assam in India, Manas River joins the Brahmaputra River on its right bank.

83 Option (c) is correct.

Explanation:

• West Bengal is the state in India with the highest population density. According to the 2001 census, West Bengal had a population density of 903 individuals per square kilometer.

• As per the 2011 census, the overall population density of India was reported as 382 persons per square kilometer.

• In more recent data, West Bengal's population density was recorded as 1028 persons per square kilometer.

84 Option (a) is correct.

Explanation: Shivanasamudra is a magnificent waterfall located in the Chamarajanagar district of Karnataka, India. It is positioned along the course of the Kaveri River, serving as the boundary between the Mandya district and Chamarajanagar district.

85 Option (c) is correct.

Explanation:

• Kanpur is a city situated on the right bank of the Ganga River and is often referred to as the "Manchester of the East." It holds significant importance as the primary industrial hub in Uttar Pradesh.

• Kanpur is the largest city situated on the banks of the river Ganga. Its geographical location and large population make it a significant city in the Ganga river basin.

86 No option is correct. (Bonus)

Explanation:

• According to the 2001 Census, approximately 285.1 million people, accounting for 27.8 percent of the total population, resided in urban areas in India. The 2011 Census revealed that the total urban population in the country surpassed 377 million, making up 31.16 percent of the total population.

• Tamil Nadu emerges as the most urbanized state, followed by Kerala, surpassing Maharashtra in terms of urbanization.

87 Option (d) is correct.

Explanation:

 The saran irrigation canal has been taken out from the Gandak River. This canal irrigates Saran Gopalganj and Siwan districts.

Triveni canal also emerges from Gandak river.

88 Option (a) is correct.

Explanation:

 Malacca Strait, also known as the Strait of Malacca, serves as a vital link between the Andaman Sea located in the Indian Ocean and the South China Sea situated in the Pacific Ocean.

• The Malacca Strait acts as a convergence point for trade, cultures, ideas, and knowledge between the Eastern and Western hemispheres.

89 Option (a) is correct.

Explanation:

- As per data of the year 2000–01, Maharashtra was the largest producer of cotton that year.
- In the cotton season of 2022–23, the three largest cotton producers in terms of state-wise production are:
- Maharashtra
- Gujarat
- And Telangana

90 Option (b) is correct.

Explanation: Jharkhand separated from Bihar on 15 November 2000 and about 46% of land was taken from old Bihar to Jharkhand

91 Option (a) is correct.

Explanation:

• In India, the Narmada and the Tapi rivers are prominent water bodies that traverse through rift valleys.

• Narmada River flows within a rift valley situated between the Satpura range in the south and the Vindhyan range in the north. Along its course, the river creates a scenic gorge characterized by marble rocks and the notable Dhuandhar waterfall near Jabalpur.

92 Option (b) is correct.

Explanation:

• The Narmada River and the Son River are the major rivers that have their origin in the Amarkantak Plateau.

• Amarkantak, located in the state of Madhya Pradesh, is a mountain range that stretches from north to south. It is the meeting point of Vindhya, Satpura and Maikala ranges.

• The farthest headwaters of the Mahanadi river are located approximately 6 kilometers away from Pharsiya village in Nagri Sihawa, at an elevation of 442 meters above sea level. This area is situated about 11 kilometers south of Sihawa town in the Dhamtari district of Chhattisgarh, within a dense forest. The hills in this region are an extension of the Eastern Ghats.

93 Option (c) is correct.

Explanation:

• Paradip, situated in the Jagatsinghpur district of Odisha, is a natural deep-water port.

• It is strategically located at the meeting point of the Mahanadi River and the Bay of Bengal. Paradip serves as a significant and prominent major port.

94 Option (a) is correct.

Explanation:

• Patna, in terms of population, is the largest district in Bihar. With a total area of 3,202 square kilometers, Patna is home to approximately 5,838,465 people (approximately). In contrast, West Champaran is the largest district in Bihar in terms of area, covering an expansive 5,229 square kilometers.

• When it comes to cities within these districts, Gaya takes the title of the largest city in terms of area.

95 Option (b) is correct.

Explanation:

• The Hirakud Dam is a significant structure built across the Mahanadi River, near the city of Sambalpur in Odisha, India.

• The Mahanadi River system is the third largest in peninsular India, following the Godavari and Krishna rivers, and it is the largest river in the state of Odisha.

• The Hirakud Dam holds the distinction of being the longest dam in India and the fourth longest dam in the world.

96 Option (d) is correct.

Explanation:

• In the year 2000, three new states were established in the Union of India, as mentioned below:

1. Jharkhand: Jharkhand was formed by carving out a separate state from Bihar on 15th November 2000.

2. Chhattisgarh: Chhattisgarh became a separate state after its separation from Madhya Pradesh on 1st November 2000.

3. Uttarakhand: Uttarakhand was created as a distinct state after being separated from Uttar Pradesh on 9th November 2000.

97 Option (a) is correct.

Explanation:

• At that time, Mizoram has the highest forest cover in India, with 85.4% of its total geographical area under forest cover. This is followed by Arunachal Pradesh (83.7%), Meghalaya (80.3%), and Nagaland (79.4%).

• However, Arunachal Pradesh has the maximum forest area in terms of percentage of India's total area.

98 Option (c) is correct.

Explanation: At that time, Uttar Pradesh was the largest producer of sugarcane followed by Maharashtra, Tamil Nadu, Karnataka and Bihar.

State	Production (in lakh tonnes)
Uttar Pradesh	12990
Maharashtra	7712
Tamil Nadu	4177
Bihar	5667

99 No option is correct. (Bonus)

Explanation:

• According to the 2001 Census of India, the state of Bihar was the third most populated state of India with total population of 82,998,509 of which 43,243,795 were male and 39,754,714 were female.

• According to the Census of India 2011, the total population of the state of Bihar in 2011 was 104,099,452. This is an increase of 22.8% from the population of Bihar in 2001.

100 Option (a) is correct.

Explanation:

• The percentage of urban population of Bihar to the total population as per 2001 Census was 10.76%. This means that for every 100 people in Bihar in 2001, 10.76 of them were living in urban areas.

• As per the census 2011, out of the entire population of the state, Bihar 11.29% of people reside in urban areas.

101 Option (b) is correct.

Explanation: Tamil Nadu receives winter rainfall, also known as the northeast monsoon. This rainfall is caused by the northeast trade winds that blow from the Bay of Bengal towards the Indian subcontinent. The northeast monsoon brings about 48% of the annual rainfall in Tamil Nadu.

102 Option (b) is correct.

Explanation:

• Fiji is an archipelago country located in Melanesia, part of Oceania in the Pacific Ocean.

• It is situated in the South Pacific Ocean, northeast of Australia.

103 Option (b) is correct.

Explanation:

• Mercury and Venus are the only planets in our solar system which do not have any natural satellites. Earth has one natural satellite while Mars has two natural satellites. Jupiter has 79 known moons, Saturn has 62 moons, Uranus has 27 moons, and Neptune has 14 moons.

104 Option (b) is correct.

Explanation:

• The Gulf Stream is a powerful oceanic current that flows in the Atlantic Ocean. It is one of the most significant and well-known currents in the world.

• Originating in the Gulf of Mexico, the Gulf Stream transports warm water northward along the eastern coast of the United States and then eastward across the Atlantic Ocean towards Europe.

• It plays a crucial role in regulating climate, influencing weather patterns, and redistributing heat around the globe. The Gulf Stream is a significant feature of the Earth's oceanic circulation system.

105 Option (d) is correct.

Explanation:

• The Oil and Natural Gas Commission (ONGC) was established in India on August 14, 1956, by the Government of India. It is an Indian multinational oil and gas company that operates in the exploration, production, and refining of petroleum and natural gas.

• The ONGC is a public sector undertaking under the Ministry of Petroleum and Natural Gas. The ONGC is the largest oil and gas exploration and production company in India.

106 Option (b) is correct.

Explanation: The International Astronomical Union (IAU) recognizes and officially defines 88 constellations in the night sky.

• These constellations are used as a way to divide the sky into specific regions and provide a reference for astronomers and stargazers.

• Each constellation represents a specific pattern of stars as seen from Earth and has its own unique mythological or historical significance.

107 Option (c) is correct.

Explanation:

• Saturn, the sixth planet from the Sun in our solar system and the second-largest planet in the Solar System, has an orbital period of approximately 29.5 Earth years.

• This means it takes Saturn about 29.5 years to complete one full orbit around the Sun.

108 Option (b) is correct.

Explanation:

• The Western Ghats are a mountain range that runs along the western coast of India. They are also known as the Sahyadri Mountains. The Sahyadri Mountains are located in the states of Maharashtra, Karnataka, Goa, Kerala, Tamil Nadu, and Gujarat. They are the longest mountain range in India, stretching for over 1,600 kilometers.

• In Maharashtra and Karnataka, the Western Ghats are also known as the Sahyadri Mountains.

109 Option (c) is correct.

Explanation:

• The Damodar Valley Corporation (DVC) was established on July 7, 1948. Damodar Valley Corporation (DVC) was the first major Multipurpose Integrated River Valley Project of the country.

• It is a statutory corporation under the Ministry of Power, Government of India. The DVC was established to develop the Damodar River basin in the states of Jharkhand and West Bengal.

110 Option (c) is correct.

Explanation:

• Venus is the most luminous planet visible in the night sky. Its appearance varies depending on the time of observation.

• At times, Venus can be seen in the eastern sky before sunrise. On other occasions, it is visible in the western sky shortly after sunset. Due to these characteristics, Venus is commonly referred to as a morning or an evening star.

III Option (a) is correct.

Explanation:

• The cycle of erosion was originally proposed by William Morris Davis in 1899. However, Penck modified the model in 1924, and his version is the one that is most commonly used today.

• Penck's model is more realistic than Davis's model because it takes into account the fact that the Earth's crust is constantly moving. This means that the landscape is constantly being uplifted and eroded, which makes it difficult for the landscape to reach a state of peneplain.

112 Option (a) is correct.

Explanation:

• The Barauni Refinery is located in the Begusarai District of Bihar state, India.

 It was constructed in partnership with the Soviet Union, marking a collaborative effort in the energy sector.

113 Option (a) is correct.

Explanation:

• The Eskimo are indigenous peoples who have historically resided in the northern circumpolar region.

• Their traditional territories span across eastern Siberia (Russia), Alaska (United States), Canada and Greenland.

• The Eskimo have a rich cultural heritage and have adapted their way of life to survive in harsh Arctic environments.

114 Option (c) is correct.

Explanation:

• The Pamir Mountains, located in Central Asia, are often referred to as the 'Roof of the World'.

• The term is used to describe the high-altitude and mountainous region, known for its vast stretches of high plateaus, glaciers, and towering peaks.

• The Pamir Mountains are situated at the junction of several mountain ranges, including the Karakoram, Hindu Kush, and Tian Shan ranges.

• This region is renowned for its extreme elevation, with peaks reaching above 7,000 meters (23,000 feet), making it one of the most elevated areas on Earth.

115 Option (c) is correct.

Explanation:

• Black soil is also known as regur soil. It is a type of soil that is found in the Deccan Plateau of India.

• It is known for its high fertility and is ideal for growing cotton. Black soil is formed from the weathering of basalt rocks. It is dark in color due to the presence of high levels of organic matter.

116 Option (b) is correct.

Explanation:

$$a = 13, b = 14, c = 15$$

$$s = \frac{a+b+c}{2} = \frac{13+14+15}{2} = 21$$

$$\tan\frac{c}{2} = \sqrt{\frac{(s-a)(s-b)}{s(s-c)}}$$

$$= \sqrt{\frac{(21-13)(21-14)}{21(21-15)}}$$

$$\tan\frac{c}{2} = \sqrt{\frac{4}{9}} = \frac{2}{3}$$

117 Option (c) is correct.

Explanation: Infinity is not a number. It is a concept representing a quantity with no bounds. Infinity is greater than any real number, so there is no "biggest" number.

118 Option (a) is correct.

$$\overline{x} = \frac{1+2+3+4+5+6+7+8+9+10}{10} = 5.5$$

$$\overline{y} = \frac{6+9+6+7+8+5+12+3+17+1}{10}$$

$$\overline{y} = 7.4$$
Covariance $= \frac{\sum (xy - \overline{x} \, \overline{y})}{h}$
 $= \frac{411-407}{10} = \frac{4}{10}$
 $= 0.4$

119 Options (a) is correct.

Explanation: y = |x|

$$y = \sqrt{x^2} = \left(x^2\right)^{1/2}$$
$$\frac{dy}{dx} = \frac{1}{2} \left(x^2\right)^{1/2-1} \cdot \frac{d}{dx} \left(x^2\right) \quad [\because \text{ By chain rule}]$$

$$\frac{dy}{dx} = \frac{1}{2} (x^2)^{1/2} \cdot 2x = \frac{x}{(x^2)^{1/2}} = \frac{x}{\sqrt{x^2}}$$
$$\frac{dx}{dx} = \frac{|x|}{x}$$

120 Option (c) is correct.

Explanation: Aryabhata and other mathematicians of ancient India first adopted the decimal system of numbers and place value system writing numbers.

121 Option (a) is correct.

Explanation:

$$13^{\circ} 12' = 13^{\circ} + \left(\frac{12}{60}\right)^{\circ} \quad [\because 1^{\circ} = 60']$$
$$= 13^{\circ} + \left(\frac{1}{5}\right)^{\circ} = \left(\frac{66}{5}\right)^{\circ}$$
$$= \frac{66}{5} \times \frac{\pi}{180} \quad [\because \pi \text{ radians} = 180^{\circ}] = \frac{11\pi}{150}$$

122 Option (a) is correct.

Explanation: Pygmies are a group of indigenous people primarily found in the African continent. They are typically associated with the central and western regions of Africa, particularly in countries such as Congo, Cameroon, Gabon, and the Central African Republic.

123 Option (d) is correct.

Explanation:

• All three Co-operation Boards, Commercial Banks and Regional Rural Banks are the source of agricultural finances in India.

• In India, agriculture finance is essential to support the agricultural sector and provide necessary funds for farmers to meet their farming-related expenses and investments. Various financial institutions play a role in providing agriculture finance in the country.

124 Option (b) is correct.

Explanation:

• The National Bank for Agriculture and Rural Development (NABARD) is a financial institution in India that primarily focuses on agricultural and rural development.

 It provides loans and financial services to support agricultural and rural initiatives, including rural infrastructure projects.

125 Option (b) is correct.

Explanation:

• The Indian rupee was devalued twice in a month in July 1991, on 1st and again on 3rd of July. This was done in response to the balance of payments crisis that India was facing at the time.

• The Indian Rupee has undergone three instances of devaluation. The first devaluation occurred in 1949, followed by a second devaluation in 1966, and finally, the Indian Rupee was devalued again in 1991.

126 Option (a) is correct.

Explanation:

• The price level in the Indian economy declined during the First Five-Year Plan (1951-56).

- This was due to a number of factors, including:
- Increased agricultural production
- Import substitution

Increased savings

127 Option (b) is correct.

Explanation:

• Kanchenjunga, is the highest mountain peak in India. It is located in the eastern Himalayas on the border between India and Nepal.

• With an elevation of 8,586 meters (28,169 feet), Kanchenjunga is the third highest mountain in the World.

128 Option (c) is correct.

Explanation:

• The atmosphere is a layer of gases that extends around the Earth.

• It consists of various gases, including nitrogen, oxygen, carbon dioxide, and trace amounts of other gases.

• The atmosphere plays a vital role in supporting life on Earth, regulating temperature, protecting against harmful radiation, and facilitating weather and climate patterns.

129 Option (a) is correct.

Explanation: Uranus has an orbital period of approximately 84 Earth years. This means that it takes about 84 years to complete one full orbit around the Sun.

130 Option (d) is correct.

Explanation:

• Palamu district in Jharkhand is famous for its bauxite deposits.

The bauxite deposits in Palamu are some of the largest in India, and they are an important source of bauxite for the Indian aluminum industry.

131 Option (d) is correct.

Explanation:

• Rice is a staple crop in India and holds immense agricultural significance.

• It is widely cultivated across various regions of the country, particularly in states like West Bengal, Uttar Pradesh, Andhra Pradesh, and Tamil Nadu.

• Rice is a crucial component of the Indian diet and a primary source of nutrition for a significant portion of the population.

132 No option is correct. (Bonus)

Explanation:

• The percentage of total forest area as compared to the geographical area of Bihar in 2001 was 6.87%.

• The total geographical area of Bihar in 2001 was 94,163 square kilometers. The total forest area of Bihar in 2001 was 6,473 square kilometers.

• The percentage of total forest area as compared to the geographical area of Bihar in 2023 is 7.76%.

• The total geographical area of Bihar in 2023 is 94,163 square kilometers. The total forest area of Bihar in 2023 is 7,305.99 square kilometers.

133 No option is correct. (Bonus)

Explanation:

• In 2001, the gross sown area in Bihar was 79.46 lakh hectares, while the net sown area was 56.03 lakh hectares.

• The total geographical area of Bihar is about 93 lakh hectares and out of this, about 56 lakh hectares is the net cultivable area as of 2023.

134 Option (d) is correct.

Explanation:

• All of the districts mentioned in the options are located in Jharkhand.

• Godda is a district in the Santhal Pargana division of Jharkhand.

Ranchi is the capital of Jharkhand.

 Bokaro is a district in the North Chotanagpur division of Jharkhand.

135 Option (c) is correct.

Explanation:

• The urban population of Bihar as per the 1991 census was 10.03%.

• As per the census 2011, out of the entire population of the state, Bihar 11.29% of people reside in urban areas.

136 Option (c) is correct.

Explanation:

• The main cash crop of Bihar is sugarcane. It is grown in the alluvial plains of the state and is a major source of income for farmers.

• In the year 2001, Bihar was the third-largest producer of sugarcane in India, after Uttar Pradesh and Maharashtra.

137 Option (a) is correct.

Explanation:

• After bifurcation of Bihar in 2000, Hazaribagh is no more in Bihar.

 Hazaribagh is a town in the Hazaribagh district of Jharkhand. It is famous for its wildlife sanctuary and national park. The Hazaribagh Wildlife Sanctuary is home to a variety of animals, including tigers, elephants, rhinoceroses, and leopards.

138 Option (b) is correct.

Explanation:

• The Minimum Reserve System is the basis for the issuing of notes in India. This system was introduced in India in 1935. Under this system, the RBI is required to hold a minimum reserve of gold and foreign exchange equivalent to 20% of the total value of its notes in circulation.

• Under this system, the Reserve Bank of India (RBI) is required to maintain a minimum reserve of assets, primarily in the form of gold and foreign securities, to cover the value of the currency in circulation.

139 Option (c) is correct.

Explanation:

• During that time, the tertiary sector, also known as the Service Sector, had the highest contribution to India's GDP.

■ It contributed 61.8% to the GDP in 2001. The primary sector contributed 18.2%, the secondary sector contributed 20%, and the public sector contributed 0.02%.

• The tertiary sector includes services such as trade, hotels, transport, restaurants, communication and storage, social and personal services, community, insurance, financing, business services, and real estate.

140 Option (b) is correct.

Explanation:

• The Reserve Bank of India (RBI) is the highest bank in the banking system of India. It is the central bank of India and it is responsible for regulating the banking system. The RBI was established in 1935 and it is headquartered in Mumbai.

• It is responsible for formulating and implementing monetary policies, regulating and supervising banks, managing the country's foreign exchange reserves, and maintaining overall financial stability.

The RBI serves as the banker's bank.

141 Option (b) is correct.

Explanation:

• Central Excise Duties are imposed by the Union Government on the production, manufacturing, and sale of goods within the country.

• These duties are levied on goods manufactured or produced in India and are collected by the Union Government.

• However, the revenue generated from Central Excise Duties is distributed between the Union Government and the respective State Governments as per the formula prescribed by the Finance Commission.

142 Option (b) is correct.

Explanation:

• The Central Statistical Organisation (CSO) is the nodal agency for collecting, compiling, and disseminating statistical information in India. It was established in 1948 and it is headquartered in New Delhi. The CSO is responsible for collecting data on a wide range of economic and social indicators, including national accounts estimates.

• The CSO is responsible for coordinating and conducting statistical surveys, collecting and analyzing data, and producing official estimates and indicators related to the national economy.

143 Option (a) is correct.

Explanation:

• According to the United States Agency for International Development (USAID), the United States was the largest bilateral donor to India in 2001. USAID provided \$1.4 billion in aid to India in 2001. This was followed by Japan (\$1.2 billion), Germany (\$900 million) and France (\$700 million).

• As per the budget data for the year 2023-24, Japan is the largest bilateral donor to India.

144 Option (b) is correct.

Explanation: $x = 5 + 3 \cos \alpha$

$$y = 7 + 3 \sin \alpha$$

$$\Rightarrow \cos \alpha = \frac{x - 5}{3}$$
(1)
And $\sin \alpha = \frac{y - 7}{3}$
(2)

By adding both above equations and by using following identity, we get,

 $\cos^2 \alpha + \sin^2 \alpha = 1$

$$\left(\frac{x-5}{3}\right)^{2} + \left(\frac{y-7}{3}\right)^{2} = 1$$
$$(x-5)^{2} + (y-7^{2}) = 3^{2}$$

This is the equation of a circle with center at (5, 7) and radius 3.

Hence, the joint equation of x and y represents a circle.

145 Option (d) is correct.

Explanation:

In any triangle, there can be one, two or three acute angles. But in every triangle there should be at least one acute angle.

146 Options (a) is correct.

Explanation: $\{x : x = x + 1\}$ for every value of *x* we get a real number.

147 Option (b) is correct.

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Explanation: |x| is always positive
So, |x|=x, x \ge 0
|x|=-x, x < 0
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where $x \in R$ **Option (c) is correct.**

Explanation:

• The Surya Temple is situated in Deo, a town in the Gaya district of Bihar, India. It is one of the most important temples dedicated to the Hindu sun God Surya.

• The temple was built in the 12th century by the Eastern Ganga dynasty. It is a UNESCO World Heritage Site.

149 Option (b) is correct.

Explanation:

• The World Peace Stupa is located in Rajgir, Bihar, India. It was built by the Nipponzan Myohoji Buddhist order in 1969.

• The stupa is a white dome-shaped structure that is about 40 meters high. It is surrounded by a park and a temple. It was built to spread the message of peace and non-violence.

150 Option (b) is correct.

Explanation:

• In the 1991 census, India reported a birth rate of 27.8 per thousand, indicating the number of live births per thousand individuals in the country at that time.

• The birth rate refers to the number of live births per thousand people in a population within a specific time period.

■ In 2011, India reported a birth rate of 21.8 per thousand, indicating the number of live births per thousand individuals.

