## **BARTI-UPSC-ST-CET-2017**

बार्टीमार्फत BARTI-UPSC-ST-CET-२०१७ या स्पर्धा परीक्षेची उत्तरतालिका उमेदवारांच्या माहितीसाठी संकेत स्थळावर प्रसिध्द करण्यात येत आहे. त्या संदर्भात अथवा उमेदवारांना काही शंका आढळून आल्यास उमेदवारांनी संदिग्ध प्रश्नांचे अधिप्रमाणित (Authentic) स्पष्टीकरण लेखी निवेदनाव्दारे बार्टी या कार्यालयास दि. १२ जानेवारी २०१७ पर्यंत सादर करावे. त्यानंतर या संदर्भात आलेली निवेदने विचारात घेतली जाणार नाहीत व त्याबाबत कोणताही पत्रव्यवहार केला जाणार नाही.

## **Answer Key with Explanation GS I**

Q.No.	Answer	Explanation
1	A	Heavy water is water highly enriched in the hydrogen isotope deuterium, eg. Heavy water used in CANDU reactors is 99.75% enriched (in ordinary water, the deuterium-to-hydrogen ratio is about 156per million). Pure heavy water is not radioactive. It is about 11% denser than water, but otherwise, is physically & chemically similar. Heavy water is used in certain types of nuclear reactors where it acts as a neutron moderator to slow down neutrons so that they are more likely to slow down neutrons so that they are more likely to react with the fissile uranium- 235 than with uranium-238 which captures neutrons without fashioning. The CANDU reactor uses this design. Light water also acts as a moderator but because light water absorbs more neutrons than heavy water, reactors using light water must use enriched uranium rather than natural uranium, otherwise criticality is impossible.
2	С	
3	В	The Rowlett act passed by the British in colonial India in March 1919, indefinitely extending "emergency measures" (of the Defense of India Regulations Act) enacted during the First World War in order to control public unrest and root out conspiracy. Passed on the recommendations of the Rowlett Committee named for its president, British judge sir Sidney Rowlett, this act effectively authorized the government to imprison for a maximum period of two years, without trial, any person suspected of terrorism living in the Raj. The Rowlett Act gave British imperial authorities power to

		deal with r	evolutionary activities.			
4	A					
5	В					
		days was a	al calendar based on the sadopted from 22 March 19. lence with dates of the Grann leap year. Calendar Strue Month (Sankrit)	57. Dates of the national of the particular of t	onal calendar have a per	manent
			Month (Sankrit)	Length	(Gragorian)	
		1	Chaitra	30/31	March 22	
		2	Vaishakha	31	April 21	
6	A	3	Jyeshtha	31	May 22	
		4	Ashadha	31	June 22	
		5	Shravana	31	July 23	
		6	Bhadrapada	31	August 23	
		7	Ashwin	30	September 23	
		8	Kartika	30	October 23	
		9	Margshirsha	30	November 22	
		10	Pausha	30	December 22	

		11	Maagha/Magha	30	January 21	
		12	Phalguna	30	February 20	
7	D	better state launched a 1) Road, 2	entral government planned e Participation in Export Protect at Sitapura near Jaipur. Und ) Water Supply 3) Electric () Bank and Post Office.	romotion. On Marc der this park the fol	h 22, 1997 Industrial Park lowing basic facilities are	of the country was provided:
8	A	expenditu	oudget deficit is Zero, but it e. The gap is income and other liabilities.		-	
9	С					
10	A	_	c blueprint is a map of a li define many of the charact		•	_
11	С					
12	В					
13	A	_	og is a non-constitutional & n of cabinet.	k non-statutory bod	ly & created by a resolution	on body & created by
14	В	moneys cr	3 in the Constitution of Incedited to the Public Account of India and the County Fund of India and I	nts- The custody of	f the consolidated Fund of	f the India and the

		Funds, the withdrawal of moneys there from, the custody of public moneys other than those credited to such funds received by or on behalf of Government of India, their payment into the public account of India and the withdrawal of money from such account & all other matters connected with or ancillary to matters aforesaid shall be regulated by laws made by parliament, & until provision in that behalf is so made, shall be regulated by law made by parliament, & until provision in that behalf is so made, shall be regulated by rules made by the president,
15	С	As per the 91 <sup>st</sup> Amendment to the Constitution, the number of ministers cannot be more than 15% of the membership of the lok sabha or the state Legislative Assemblies.
16	D	
17	A	The Annual financial statement that is known as budget is prepared by Department of Economic Affairs of finance Ministry.
18	С	
19	В	The Anglo-French struggle was started in India in Karnataka.
20	A	The Ghadr - a Punjabi word for revolution was a revolutionary movement organized by punjabi immigrant workers in California with its headquarters at 5 wood street, san Francisco.  The party was founded with the aim to
21	D	There are 9 pillars of Digital India – i) Broadband Highways ii) Universal access to mobile connectivity. Iii) Public Internet access program. Iv) E-Governance – Reforming government through technology v) Information for all vi) Electronics manufacturing vii) Information Technology for jobs. Viii) E-delivery of E-kranti services ix) Early harvest program.
22	A	

23	A	The following are the Fundamental Duties prescribed by the Constitution of the nation under Part (IV-A) to its every citizen —  a) To abide by the Constitution and respect its ideas and institutions, the National Flag and the National Anthem.  b) To cherish and follow the noble ideals which inspired our national struggle for freedom.  c) To uphold & protect the sovereignty, unity and integrity of India.  d) To defend the country and render national service when called upon to do so.  e) To promote harmony and the spirit of common brotherhood amongst all the people of India transcending religious, linguistic and regional or sectional diversities, to renounce practices derogatory to the dignity of women.  f) To value & preserve the rich heritage of our composite culture.  g) To protect & improve the natural environment including forests, rivers and wild life and to have compassion for living creatures.  h) To develop the scientific temper, humanism and the spirit of inquiry & reform.  i) To safeguard public property & to abjure violence.  j) To strive towards excellence in all spheres of individual & collective activity so that the nation constantly rises to higher levels of endeavor & achievement
		constantly rises to higher levels of endeavor & achievement.
24	A	A tourist moving from West to East across the International Date line will lose a day.
25	D	According to World Health Organization, the main causes of death of 0-5 age group causes of death of 0-5 age group children in India are as follows –

		Neonatal (52%)
		Pneumonia (15%) Measles (3%)
		Diarrhea (11%)
		Injury (4%)
		Others (15%)
		Black soil also known as the 'Regure Soil' Or 'Black Cotton Soil'. The black Soil are generally
26	A	Clayey, deep and impermeable. They swell and become sticky when wet and shrink when dried. So,
		during the dry season, This Soil develops wide cracks, Thus, there occurs a kind of 'self ploughing'.
		Dormancy is survival strategy exhibited by many plant species, which enables then to survive in
		dimates where part of the year, is unsuitable. For growth, such as winter or dry seasons, It is also seen
27	D	in bacteria, as the metabolic rate of cells is higher in favourable conditions and in adverse conditions
		the bueterail metabolism is arrested. Viruses do not exhibit cellular machinery and kown to show
		metabolism in the host cell via virus latency. Virus latency is the ability of a pathogenic virus to lie.
		Dormant (latst) with in a cell. Denoted as lysogenic part of the virul life cycle.
28	В	In Maldives Islands are too small to have rivers, but small lakes and marshes can be found in some of
28	Б	them.
		Jawaharlal Nehru The Congress met at Karachi in March 1931 to endorse the Gandhi-Irwin or the
		Delhi Pact. It was presided over by Sardar Patel. This session became memorable for its resolution on
29	В	the Fundamental Rights and the National Economic Programs. In short, It set the parameters of the
		Swaraj was reflecting the then dominant leftwing ting of the national movements. It was drafted by
		the Pandit Jawaharlal Nehru.
L		

30	D	Artificial satellites are human-built objects orbiting the Earth and other planets in the solar system. An artificial satellite orbiting the earth does not fell down because the earth's attraction produces the necessary acceleration for its motion in a curved path.
31	A	
32	D	The vishwakarma Rashtriya Puraskar is given under the Ministry of Labour & Employement, Government of India, Since 1965. The criteria for presentation of the award.  (i) Lowest average frequency Rate over a period of three consecutive years.  (ii) Accident free year based on man hours.  (iii) Outstanding safety performance of industrial establishments, construction sites, ports etc.  (iv) To save foreign currency.
33	D	
34	D	In subsistence forming, farming is done in small scale level to meet the own consumption levels of the producer. Usually, fragmented lands are used for cultivation & archaic techniques of cultivation are adopted.
35	В	International Year of Pulses. 2016 was declared as the International Year of Pulses by the sixty eighth session of the United Nations General Assembly on December 20, 2013. The Food and Agriculture Organization (FAO) of the United Nations has been nominated to declare a year for pulses.
36	С	The <b>Paris Agreement</b> (French: <b>Accord</b> de <b>Paris</b> ) is an <b>agreement</b> within the United Nations Framework Convention on Climate Change (UNFCCC) dealing with greenhouse gases emissions mitigation, adaptation and finance starting in the year 2020.

37	D	Pulses are generally not exported from India. India is largest producer as well as consumer of pulses in the world.
38	С	An example of an <b>artificial currency</b> is the special drawing rights (SDR) that were created by the International Monetary Fund (IMF). SDRs are used by the members of the IMF to pay their dues and transfer funds between countries.
39	A	Cornwallis is called 'the father of civil service in India'.  Police Reforms of Cornwallis  So far Police was under the Zamindars. It was taken away from Zamindars and handed over to the Superintendent of the Police at District level. The Police was Europeanized. They were now paid salary and given unlimited powers to arrest the suspected persons. So now Thanas were there in India to maintain "peace and order". Zamindars had still a great influence on these Thanas, but legally there were detached from the Police functionary. In 1789 Lord Cornwallis made a proclamation that "anyone who is found associated with Slavery would be prosecuted in the Supreme Court". This step he had taken to curb the menace of slavery prevalent in India since Sultanate Era but the immediate reason was that the Children were collected by the Indians and sold to "French".  A new kind of Judicial organization was introduced in India by warren Hastings.
40	D	The transactions in BOP are categorized in:  - Current Account shows export and import of visible (also called merchandise) and invisibles (also called non-merchandise). Invisibles take into account services, transfers and income.  - Capital Account shows a Capital Expenditure and income for a country. It gives a summary of the net flow of both private and public investment into an economy External commercial Borrowing foreign Direct investment, foreign portfolio Investment, etc. form part of capital account.

41	С	
42	A	An ecosystem may be defined as a structural & functional unit of the biosphere comprising living organisms & their non-living environment that interact by means of food-chains & chemical cycles resulting in energy flow, biotic diversity and material cycling to form a stable, Self-Supporting System.
43	A	The Constitution (Ninety Seventh Amendment) Act 2011 relating to the co-operatives is aimed to encourage economic activities of cooperatives which in turn help progress of rural India. It is expected to not only ensure autonomous and democratic functioning of cooperatives, but also the accountability of the management to the members and other stakeholders.  97 <sup>th</sup> Amendment Act, 2011: As per the amendment the changes done to constitution are:  • In Part III of the constitution, after words "or unions" the words "Cooperative Societies" was added.  • In Part IXA new Article 43B was inserted, which says: The state shall Endeavour to promote voluntary formation, autonomous functioning, democratic control and professional management of the co-operative societies".  • After Part IXA of the constitution, a Part IXB was inserted to accommodate state vs. centre roles.  Salient features Part IXB  • It makes Right to form cooperatives is a fundamental right.  • Reservation of one seat for SC/ST and two seats for women on the board of every co-operative society.  • Cooperatives could set up agency which would oversee election. Uniformity in the tenure of Cooperative Board of Directors.  • Provisions for incorporation, regulation and winding up of co-operative societies based on the principles of democratic process and specifying the maximum number of directors as twenty-one.

		<ul> <li>Providing for a fixed term of five years from the date of election in respect of the elected members of the board and its office bearers;</li> <li>Providing for a maximum time limit of six months during which a board of directors of cooperative society could be kept under suspension;</li> <li>Providing for independent professional audit;</li> <li>Providing for right of information to the members of the co-operative societies;</li> <li>Empowering the State Governments to obtain periodic reports of activities and accounts of cooperative societies; which have individuals as members from such categories;</li> <li>Providing for offences relating to co-operative societies and penalties in respect of such offences.</li> </ul>
		<u>In-situ Conservation</u> – The conservation of species of plants and animals in their natural habitats ie. wild areas is called in-situ or on site conservation, In this method of conservation of biodiversity, species of plants and animals are protected in specially demarcated natural habitats, such as "nature reserve", "biosphere reserve" national parks, sanctuaries etc. Species of plants and animals together with all the components of their habitat are well protected and exploitation of biological resources, as well as abiotic resources are strictly prohibited.
44	В	<b>Ex-situ conservation</b> – The method of ex-situ conservation of biodiversity simply means protection and conservation of plants and animals outside their natural native places. Such conservation is called off-situ conservation. In fact, plants and animals, which face immediate extinction are removed up and maintained in other suitable areas managed by man. Such areas include botanical gardens, zoo, genetic resource centre's, culture collections, hatcheries etc. In order to restore genetic diversity of plants and animals, the seeds and gramplasms of rare & endangered species are stored in "seed banks" or "gramplasm banks" to conserve genes of such species. Such storage centre's are also called as gene banks.
45	D	1. Statement 1 is wrong. Eco-sensitive zones are the areas that are declared under Environment (Protection) Act, 1986. The National wildlife Action plan indicates that "All identified areas

		around protected Areas and wildlife corridors to be declared as ecologically fragile under the Environment (Protection) Act, 1986."			
		2. Statement 2 is wrong. Some of the activities could be allowed in all the eco-sensitive areas, others will need to be regulated /prohibited. Eco-tourism facilities like home stays, popeways, kiosks, funiculars etc. are not prohibited in Eco-sensitive zone around Meanam wildlife Sanctuary, South Sikkim.			
46	В	Literacy M	on budget 2016-17. Two new Iission and Digital Sakshtra A Gram Swaraj" has been prop	bhiyan, To help panchayt	i Raj institutions, a new scheme
47	С	The exit problems related to fertilizers farming and sugar etc, can be solved by expansion of JAM (Jandhan, Adhar, Mobile) facility, DBI can help to transfer. Benefits to the people targeted.			
48	В	S.No.	Name Nilgiri Biosphere Simlipal	State Tamil & Nadu Kerala Karnataka Odisha	Type Western Ghats Deccan Peninsula
		3	Khangchendzonga Seshachalam Hills	Sikkim  Andhra Pradesh	East Himalaya  Eastern Ghats
49	D	Lichens ar	e considered as the bio indicat	tors that respond to a chan	ge in the environment especially air

		pollution. They are found in the zones where in the air is pure.
50	В	

## **Answer Key with Explanation CSAT**

Q. No.	Answer	Explanation
1	D	
2	С	
3	С	
4	A	The passage is about campaign finance-how expenditure on campaigning affects the candidate's representation & voter's choice. This is given in option (a), thus rendering it the answer. Option (d) is incorrect because although the passage does say that low expenditure impacts the candidate negatively, it does not say whether or not it is directly proportional. Option (b) is incorrect because the voters may not have made the right choice due to lack of proper information Option (C) is incorrect as the passage makes no mention of finance laws related to campaigning.
5	С	Let market price of the product be Rs. X Therefore, Selling Price = $(1-20/100) x = 0.5 x$ Therefore, Cost price = $0.8x / (1+60/100) = 0.5x$
		Hence, the required profit percentage = x - 0.5x /0.5x X 100 = 100%
6	D	Option (a) is not a logical inference since the passage states that all men can act "without asking leave or depending upon the will of any other man". Thus, option a is opposite to the logic of the passage. Option (b) is incorrect because none of the two compulsions (to carry out actions) or (not to ask permission) are necessary. They are only factors of the "freedom to order their actions,"
		Option (C) is wrong because one can't act irrespective of the laws of nature' according to the passage.
		Option (d) is correct since it follows from the option (d) is correct since it follows from the essence of the passage that a person may act according to his will but natural laws must not be broken.
7	С	Statement (i) is wrong as the passage says 'remains to be seen', which means that the outcome is yet unknown.

		Statement (ii) is wrong because the author has reserved his judgment on cut in social sector spending by using
		'remains to be seen' and 'it can be said'. The author's attitude is cautious, that negative.
8	A	North  South  North  North  NE  S-E  South  S-W
9	D	Number of favorable Outcomes = 4C3 (Number of ways of picking 3 given balls from 4 green balls). Total number of outcomes = 9 C3 (Number of ways of picking 3 balls from (2+3+4) 9 balls) Therefore, required probability = 4C3 /9C3 = 4 X 3 X 2 / 9 X 8 X 7 = 1/21
10	A	Statement 1 is correct as the passage suggests that the 'consequences' were not foreseen. The discrepancies were brought to light by the expert committees later. Statement 2 is untrue as the author views the expert reports as something positive.
11	С	Option (a) is incorrect as it nowhere mentioned in the passage that an over arching regulation is required. (b) is invalid as no such message is found in the passage. (c) is incorrect as there is no mention of this in the passage.
12	В	Option (a) is wrong as the passage doesn't mention democracy or civilization. Option (c) is wrong as no data has been provided in the passage to compare Macbeth with others. Option (d) is similarly irrelevant to the context of the passage. However, option (d) can be inferred from the last line of the passage.
13	D	
14	D	
15	D	
16	В	
17	D	The 1 <sup>st</sup> day of a month was Wednesday and the 1 <sup>st</sup> day of the next to next month of the same year was Sunday ie. There were 4 odd days ie. There were 60 days in between these two dates. This could be possible only when there

		were 31 and 29 days in these two months,			
18	В	As the month whose 1 <sup>st</sup> day was Wednesday was not January ie. July was Sunday.  Let the time taken to cover the first half of the distance't' hr.			
		Therefore, 45Xt=15X(16-t)			
		Therefore, The total distance $=45X4+15+12$			
		=360km			
	_	Hence, the time taken when speed is $60 \text{km/Hr.}=360/60=60 \text{ hr}$			
19	В				
20	D	Ajay	Meet		
			Weer		
		Sanjay			
		I	Leena		
		☐ Male Fem	ale Married pair		
				. 1	
			Sibling Chil	la	
21	С	Using the inform	nation given in the question	following table can be forme	d
21	C	Osing the inform	nation given in the question	tonowing table can be forme	u.
		Names	Boarding Station	Destination	]
		A	Lucknow	Bangalore	
		В	Mumbai	Hyderabad	
		С	Hisar	Mumbai	
		D	Chandigad	Lucknow	
		Е	Bangalore	Hisar	
		F	Hyderabad	Chandigadh	

22	A	
23	В	
24	A	
25	B	
26	В	Let the present ages in years of Soni, Moni and Toni be 6x, 5x & 10x respectively,
		Therefore, $10x-8 = 2(6x-8)$
		Therefore, x=4
		Hence, the age of Moni 3 years hence $= 4X5+3 = 23$ years
27	С	From statement 1 : Apple > Pear
		From statement 2 : Orange > Apple
		From Statement 3: Banana >, Pear
		Therefore, we get in order of taste 1) Orange (2) Apple (3) Banana and Pear OR (4) Pear
		Therefore, Answer is (C)
28	С	Let the work done by a man and a woman in one day be m and n units respectively and let t units be the total work, then t=30X(2m+3w)
		=20x (m+7w)
		=4m=5w
		= t = 165 w
		Therefore, number of days = 165 w / 4m+10w = 165w/5w+10w = 165w/15w=11
		- 103 W / 4III+10W - 103W/3W+10W = 103W/13W=11

29	В	
30	A	Statements 1, 2 and 3 are mentioned in the passage; refer lines since the sudden and unexpected demise  Ideological approaches to social change. Therefore correct option is (a)
31	A	Statement 3 is not mentioned in the passage. Statement 4 is positive aspect of MGOs & not cause of happiness for the author. Statements 1 & 2 are the correct options. So, the correct option is (a)
32	А	Statement 2 is not correct as it is not mentioned in the passage statement 1 is correct, refer lines 'And most important, amongst activists and instruments of positive social change' Hence (a) is the correct option.
33	С	Statement 3 talks about all female participants in the Olympics are invited for training, not all participants, so option (a) is wrong. Similarly, statement nowhere talks about all athletes 1, it is said that only athletes can participate in Olympics, again no mention of training. So option (b) is also wrong. Option (C) can be deduced directly from statement 1. So, the correct option is (c).
34	В	Due to unequal free trade, poor countries lose out on agricultural subsidies rich foreign countries. Hence increasing the gap between the two.
35	А	The first line of the passage makes it clear that each country can take advantage of the goods and services it has produced most efficiently, according to capitalist economic theory.
36	В	The last line of the passage has clearly defined the ways by which trade may promote development.
37	D	The sentence after " free trade is not equally free" tells us that" access to the most important markets" is denied to poor countries even in so called free trade.
38	А	
39	D	
40	В	Let the marks scored by the student who left the class be x. Then, 60X30-x/29= 62= x = 2