

**Union Public Service Commission (UPSC)**

**CDS**

**Combined Defence Services  
(IMA/INA/AFA and OTA)**


**GENERAL KNOWLEDGE  
Solved Papers**

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## CDS Previous Years Exam Papers Analysis Chart

S. No	Exam	Proposed Year	Question Paper	Total Question
1.	CDS General Knowledge	2024	II	120
2.	CDS General Knowledge	2024	I	120
3.	CDS General Knowledge	2023	II	120
4.	CDS General Knowledge	2023	I	120
5.	CDS General Knowledge	2022	II	120
6.	CDS General Knowledge	2022	I	120
7.	CDS General Knowledge	2021	II	120
8.	CDS General Knowledge	2021	I	120
9.	CDS General Knowledge	2020	II	120
10.	CDS General Knowledge	02-02-2020	I	120
11.	CDS General Knowledge	08-09-2019	II	120
12.	CDS General Knowledge	03-02-2019	I	120
13.	CDS General Knowledge	18-11-2018	II	120
14.	CDS General Knowledge	04-02-2018	I	120
15.	CDS General Knowledge	19-11-2017	II	120
16.	CDS General Knowledge	05-02-2017	I	120
17.	CDS General Knowledge	23-10-2016	II	120
18.	CDS General Knowledge	14-02-2016	I	120
19.	CDS General Knowledge	01-11-2015	II	120
20.	CDS General Knowledge	15-02-2015	I	120
21.	CDS General Knowledge	26-10-2014	II	120
22.	CDS General Knowledge	19-02-2014	I	120
			<b>Total</b>	<b>2640</b>

# Combined Defence Services (CDS) Exam-2014 (I)

## GENERAL KNOWLEDGE

**Explanation with Solved Paper** (Exam Date: 09-02-2014)

1. **Indian Navy commissioned its first Advanced Light Helicopter Squadron at Kochi in November 2013. What is the name of the helicopter?**

(a) Chetak (b) Dhruv  
(c) Rudra (d) Cheetah

**Ans : (b)** The Indian Navy commissioned its first Advanced Light Helicopter Squadron at Kochi in November 2013. The name of that helicopter is Dhruv.

2. **Which of the following statements about India's unorganized sector are true?**

1. Labour is more in number than that in the organized sector.
2. Job security and work regulation are better in unorganized sector.
3. They are usually not organized into trade unions.
4. Workers are usually employed for a limited number of days.

Select the correct answer using the code given below.

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

**Ans : (b)** The correct statements about the unorganized sector in India :

- Statement 1, is correct because the unorganized sector employs more workers than the organized sector.
- Statement 3, is correct because workers in the unorganized sector are generally not organized into trade unions.
- Statement 4, is correct because workers in the unorganized sector are generally employed for a limited number of days.
- Statement 2, is incorrect because employment security and work regulation are not better in the unorganized sector.

Hence, the correct answer is option (b).

3. **Consider the following statements :**

1. Battle of Buxar provided the key to the English to establish their rule in India.
2. The Treaty of Allahabad, concluded in 1765, enabled the British to establish their rule in Bengal.

**Which of the statements given above is/are correct?**

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

**Ans : (c)** Both the give statements are correct.

- The Battle of Buxar (1764) was an important step towards consolidating the power of the British in India. Victory in this battle enabled the British to enter into treaties with the Mughal emperor and the Nawabs of Bengal, Bihar, and Odisha, giving them control over these regions.
- The Treaty of Allahabad in (1765) helped the British East India Company obtain the Diwani of Bengal, Bihar and Odisha. This treaty increased the administrative and economic influence of the company and further strengthened the foundation of British rule.

Hence, the correct answer is option (c).

4. **Corporation tax in India is levied on income of a company. Which one of the following does not include Corporation tax?**

(a) Profit from business  
(b) Capital gain  
(c) Interest on securities  
(d) Sale proceed of assets

**Ans : (d)** Sale proceeds of assets are not subject to corporate tax as it is a capital receipt and not a part of income. However, if there are any capital gains on sale of assets, corporate tax is levied on it.

5. **The concept of hegemony is used to understand the capacity to 'manufacture consent'. Here hegemony implies**

1. class ascendancy in ideological spheres
2. deploying ideological resources to shape behavior of weaker States/powers
3. provision of global public goods by a dominant power
4. military dominance in relative and absolute terms

Select the correct answer using the code given below.

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

**Ans : (d)** Hegemony - Deals with the relations, patterns and balance of military capabilities between states, Generally speaking, leadership or dominance, especially by one state or social group over the other is known as hegemony, power, dominance and leadership are there main features of hegemony. For example- USA is a powerful country at present while tries to dominate other Asian and African Nations.

Therefore, the correct answer is option (d).

6. On November 8, 2013, many people died in Philippines after a super Typhoon ravaged the country. What was the name of the typhoon?
- (a) Haiyan (b) Utor  
(c) Phailin (d) Nesat

**Ans : (a)** The name of the storm that struck the Philippines on November 8, 2013 was "Typhoon Haiyan". This storm was an extremely powerful and destructive cyclone, which caused widespread devastation in the Philippines.

7. Non-military Confidence Building Measures (CBMs) in a peace process include
1. people to people contact across borders
  2. literary and cultural interaction under governmental and non-governmental agencies
  3. increase in travel facilities
  4. joint initiatives to tackle common socio-economic problems

Select the correct answer using the code given below.

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

**Ans : (d)** All the given measures are part of civilian confidence - building measures (CBMs) in the peace process. These measures include people - to - people contacts across borders, literary and cultural interactions, increased travel facilities, and joint initiatives to solve socio-economic problems, which help foster trust and co-operation.

Therefore, the correct answer is option (d).

8. In India, mergers and acquisition of firms are regulated by
- (a) National Manufacturing Competitiveness Council  
(b) Competition Commission of India  
(c) Security and Exchange Board of India  
(d) Department of Industrial Policy and Promotion

**Ans : (b)** Mergers and acquisitions of firms in India are regulated by the Competition Commission of India (CCI). The main function of the CCI is to promote competition and monitor any activities that harm competition in business activities. This commission ensures that fair competition is maintained in the market.

9. Consider the following statements regarding Indian Feudalism in the early medieval period :
1. The revenue assignments were called Bhoga.
  2. The hereditary chiefs neither collected revenues nor assumed administrative powers.
- Which of the statements given above is/are correct?
- (a) 1 only (b) 2 only  
(c) Both 1 and 2 (d) Neither 1 nor 2

**Ans : (a)** In the context of Indian feudalism in the early medieval period :

- Revenue assignment was called 'Bhog'. This is correct because the term 'Bhog' was used in the context of revenue collection at this time.
- Hereditary chiefs collected revenue and held administrative powers, so statement 2 is not correct. Out of the above both statements, statement (2) is not correct. Hence, option (a) is the correct answer.

10. The Fundamental Rights, enshrined in Part III of the Constitution of India, "are inherent and cannot be extinguished by any constitutional and statutory provision". This was made clear in the case of

- (a) A. K. Gopalan v. State of Madras  
(b) I. C. Golak Nath v. State of Punjab  
(c) State of West Bengal v. Committee for Protection of Democratic Rights, West Bengal  
(d) Shankari Prasad Singh Deo v. Union of India

**Ans : (b)** The Fundamental Rights enshrined in Part III of the Indian Constitution are "intrinsic" and cannot be abrogated by any constitutional or legal provision, as was clarified in the case of I.C. Golaknath Vs. State of Punjab (1967). In this decision, the Supreme Court held that Parliament cannot abolish the Fundamental Rights from the constitution even through amendment, as these rights are part of the basic structure of the constitution.

11. Consider the following statements :

1. The Jains believed that Mahavira had twenty-three predecessors.
2. Parshvanatha was twenty-third Tirthankara.
3. Rishava was immediate successor of Mahavira.

Which of the statements given above is/are correct?

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

**Ans : (a)** 1. Jains believe that Mahavira had twenty-three predecessors.

2. Parshvanatha was twenty-third Tirthankara.

Mahavira was the 24th Tirthankar and his immediate predecessor was Rishabha Deva, not Mahavira's immediate successor.

Hence, the correct answer is option (a).

12. Consider the following statements regarding Indian Ocean Rim Association :

1. The 13th Council of Ministers Meeting of the Association was held in November 2013 in Perth.
2. India was elected Chair of the Association from 2013 to 2015.
3. There are twenty member nations in the Association.

Which of the statements given above is/are correct?

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

**Ans : (c)** The correct statements regarding the Indian Ocean Rim Association is :  
 Statement 1 : The 13th Council of Ministers Meeting of the Association was held in November 2013 in Perth.  
 Statement 3 : There are twenty member nations in the Association at that time.  
 Statement 2, is wrong, because during 2013-15, the Chairmanship of IORA was held by Australia not India.  
**Note :** At present the number of members of IORA is 23.  
 Since, this question was asked in 2014, option (c) will be correct.

**13. 'Population dividend' refers to**

- (a) total number of population
- (b) youthful age structure of a population
- (c) relatively high proportion of experienced aged people
- (d) migration from richer region to poorer region

**Ans : (b)** 'Demographic Dividend' refers to the economic benefit a country receives when its working-age population (15-64 years) is greater than the population of other age groups (children and the elderly). This situation arises when the birth rate falls and the labour force increases, leading to increased economic output.

**14. Which of the following principles is/are taken into consideration by the Speaker while recognizing a parliamentary party or group?**

- 1. An association of members who have an organization both inside and outside the House
- 2. An association of members who shall have at least one-third of the total number of members of the House
- 3. An association of members who have a distinct programme of parliamentary work

Select the correct answer using the code given below.

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

**Ans : (c)** While granting recognition to a parliamentary party or group, the following principle are taken into consideration by the Lok Sabha Speaker :

- 1. An association of members having an organisation within and outside the House.
- 3. An association of members having a specific programme of parliamentary work.

The second principle (an association of members constituting at least one-third of the total number of members of the House) is not correct.

**15. The Fourth Buddhist Council was held in Kashmir under the leadership of**

- (a) Bindusara
- (b) Ashoka
- (c) Kunal
- (d) Kanishka

**Ans : (d)** : The fourth Buddhist Sangiti was held in the first century AD at Kundalvana in Kashmir (near present - day Srinagar). It was presided over by the great Kushan emperor Kanishka. This Sangiti is an important milestone in the history of Buddhism as it clarified the division between the Mahayana and Hinayana Buddhist branches.

**16. Consider the following statements about UN Frontline Workers Global Leadership Award :**

- 1. Martha Dodray, an auxiliary nurse and midwife from Bihar, was conferred the Award in the year 2013.
- 2. Martha Dodray was awarded for her dedicated service in the bird flu affected areas of India.

**Which of the statements given above is/are correct?**

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

**Ans : (a)** Only the 1<sup>st</sup> statement is correct regarding 'UN Frontline Workers Global Leadership Award'.

Statement 1, mentions that Martha Dodray, an auxiliary nurse and midwife from Bihar, received the UN Frontline Workers Global Leadership Award in 2013.

Statement 2, claims that Martha Dodray received the award for her dedicated service in the bird flu affected area of India.

There is no mention of bird flu or any specific reason for her receiving the award in the given question. Therefore, statement 2 is not mentioned and is incorrect.

**17. Which one of the following statements regarding the Departmental Committee of the Parliament of India on the empowerment of women is correct?**

- (a) The Committee will consist of members of the Lok Sabha only
- (b) A Cabinet Minister can be a member of the Committee
- (c) The term of office of the members of the Committee shall not exceed two years
- (d) It reports on the working of welfare programmes for the women.

**Ans : (d)** The following details on department related Parliamentary standing committee of the Parliamentary of India are correct.

- This committee consists of members of both the Lok Sabha and the Rajya Sabha.
- No minister can be a member of this committee.
- Committee members normally serve a term of 2 years, but may be renewed from time to time.
- The committee looks after the implementation and monitoring of welfare programmes for women, as well as submits reports on issues related to women' right and empowerment.

Therefore, the correct answer is option (d).

**18. The University of Nalanda was set up by which Gupta ruler?**

- (a) Kumaragupta II
- (b) Kumaragupta I
- (c) Chandragupta II
- (d) Samudragupta

**Ans : (b)** Nalanda University was founded in the mid-5th century, specifically in 427 AD, by the Gupta emperor Kumaragupta-I.

The University was one of the major educational and intellectual centers of ancient India and operated during the Gupta period.

19. Which of the following statements about Prof. C. N. R. Rao is/are correct?

1. He is considered to be an international authority in solid-state and structural chemistry.
2. He is the first Indian to reach the H-index of 100, reflecting the economy of the body of his published research work.

Select the correct answer using the code given below

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

**Ans : (c)** Professor C.N.R. Rao, Indian Chemist, particularly renowned for his contributions to solid-state chemistry and structural chemistry. The following details about him are correct :

- Professor Rao is recognized as an international experts in solid-state chemistry and structural chemistry.
- Professor Rao is the first Indian to reach the H-index level of 100. The H-index is a parameter that reflects the quality and impact of a scientist's published research work.

20. Consider the following statements about Sher Shah's administration :

1. He divided his empire into Sarkars, which were further subdivided into Parganas.
2. The Sarkars and the Parganas were directly administered by Sher Shah without the help of any other officials.

Which of the statements given above is/are correct?

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

**Ans : (a)** Sher Shah Suri did two major things in his administrative reforms :-

- He divided his empire into districts (sarkars), which were further subdivided into parganas.
- In conducting the administration, Sher Shah created an effective and well-organised administrative structure which comprised of various employees and officials, not just individuals working together.

Hence, the correct answer is option (a).

21. Consider the following statements :

1. B. G. Tilak founded the Home Rule League in April 1916 in Maharashtra.
2. N. C. Kelkar was not associated with Home Rule Movement.

Which of the statements given above is/are correct?

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

**Ans : (a)** B.G. Tilak founded the Home Rule League in Maharashtra in April 1916. This league was an important movement demanding Swaraj (independence) in India. Tilak's aim was to force the British government to grant autonomy to Indians.

- N.C. Kelkar (Narendranath Chandrakumar Kelkar) was a prominent member of the Home Rule Movement. He shared Tilak's ideology and actively participated in the movement. He was a close associated of Tilak and played an important role in the work of the Home Rule League.

Therefore, the correct answer is option (a).

22. In India, contribution of food inflation to

overall inflation is around  $\frac{1}{3}$  rd to  $\frac{2}{5}$  th. Within

food inflation, contribution of food articles is higher because price rise in food articles is

- (a) higher and their weight is also higher compared to food products  
(b) higher but their weight is lower compared to food products  
(c) lower but their weight is higher compared to food products  
(d) lower and their weight is also lower compared to food products

**Ans : (a)** In India, the contribution of food inflation to overall inflation is usually high. This is because the prices of food items increase rapidly and they have a high weight in the Consumer Price Index (CPI). The weight of food items plays an important role in calculating overall inflation, due to which the contribution of food inflation is high. The increase in the prices of food items is not only higher, but their weight is also relatively higher in overall inflation, due to which the effect of food inflation is seen more.

23. What do you understand by the term 'propaganda'?

1. It is unverified story that is spread from one person to another.
2. Is is communication tailored to influence opinion.
3. It is an enthusiasm among a relatively large number of people for a particular innovation.
4. It is a tool of oration used only by political parties.

Select the correct answer using the code given below.

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

**Ans : (a)** The word 'propaganda' means communication that is designed to influence a particular opinion. It is not an unverified story, an enthusiasm for innovation, or a tactic only guys by political parties.

24. The Annual Financial Statement of the Government of India in respect of each financial year shall be presented to the House on such day as the

- (a) Speaker may direct  
(b) President of India may direct  
(c) Parliament may decide  
(d) Finance Minister may decide



**Ans : (b)** The annual financial statement (Budget) of the Government of India is presented on a day directed by the President of India. The President sets the date, while the Finance Minister prepares the budget and presents it to the Parliament. The Parliament considers the budget to approve it.

**25. The social ideals of Mahatma Gandhi were first put forth in**

- (a) Hind Swaraj
- (b) An Autobiography—The story of My Experiments with Truth
- (c) History of the Satyagraha in South Africa
- (d) The Bhagavad Gita According to Gandhi

**Ans : (a)** Mahatma Gandhi's social ideals and thoughts were first published in detail in his book "Hind Swaraj" in 1909.

- "An Autobiography : The Story of My Experiments with Truth" : This is Gandhi's autobiography, in which he has described various aspects of his life and experiments with Satyagraha.
- "History of the Satyagraha in South Africa" : This book tells the story of Gandhiji's Satyagraha movement in South Africa.
- "The Bhagavad Gita According to Gandhi" : In this, Gandhiji presents his interpretation and understanding of the Bhagavad Gita, but it is not the original source of his social ideals. Thus, the social ideals of Mahatma Gandhi were presented for the first time in "Hind Swaraj".

**26. Carefully read the following passage and identify the person referred to in that :**

**Her best known works are 'The Golden Notebook', 'Memoirs of a Survivor' and 'The Summer Before the Dark'. She was the oldest recipient of the Nobel Prize in Literature.**

- (a) Alice Munro
- (b) Doris Lessing
- (c) Herta Muller
- (d) Elfriede Jelinek

**Ans : (b)** Doris Lessing was a famous British writer who was born on 22 October 1919 and died on 17 November 2013. She was awarded the Nobel Prize in Literature in 2007.

Her major works are 'The Golden Notebook', 'Memoirs of a Survivor' and 'The Summer Before the Dark'.

**27. The subject matter of an adjournment motion in the Parliament**

- 1. must be directly related to the conduct of the Union Government
- 2. may involve failure of the Government of India to perform its duties in accordance with the Constitution

**Select the correct answer using the code given below.**

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

**Ans : (b)** An adjournment motion in the parliament may involve the failure of the Government of India to perform its duties in accordance with the constitution. This means that the subject matter of an adjournment motion does not necessarily have to be directly related to the conduct of the Union Government.

An adjournment motion is a parliamentary procedure used to discuss matters of urgent public importance. It allows members of parliament to interrupt the normal business of the house and discuss a specific issue.

Therefore, the correct answer is option (b).

**28. Share of food in total consumption expenditure has been coming down as per capita income grew over time in last sixty years because**

- (a) people have been purchasing less food
- (b) people have been preferring non-cereal items in their food basket
- (c) growth in food expenditure has been lower than growth in Per capita income
- (d) percentage of the poor in population has increased over time

**Ans : (c)** Over the past sixty years, as per capita income has risen, the share of food in total consumption expenditure has declined because the increase in food expenditure has been less than the increase in per capita income.

This is in accordance with Engel's law, which states that as income rises, the percentage of expenditure on food falls while expenditure on other goods and services increases.

Therefore, people began to spend a larger share of their rising income on non-food goods and services.

**29. Consider the following statements about Syed Ahmed Khan, the founder of Muhammadan Anglo-Oriental College, Aligarh :**

- 1. He was a staunch supporter of Indian National Congress.
- 2. Muhammadan Anglo-Oriental College was set up with the objective of promoting learning of Islamic education among the Muslims.

**Which of the statements given above is/are correct?**

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

**Ans : (d)** Syed Ahmad Khan was not a staunch supporter of the Indian National Congress; rather, he was against the Congress and advocated a separated political identity for Muslims. Additionally, the establishment of the Muhammadan Anglo-Oriental College (Which later became Aligarh Muslim University) was aimed at providing modern western education to Muslims, not just promoting Islamic education.

**30. Political theory**

1. deals with the ideas and principles that shape Constitutions
2. clarifies the meaning of freedom, equality and justice
3. probes the significance of the principles of rule of law, separation of power and judicial review

Select the correct answer using the code given below

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

**Ans : (d)** Political theory deals with all of the following :

- The principles and ideas that shape constitutions.
  - Explains the meaning of liberty, equality and justice.
  - Examines the relevance of the principles of rule of law, separation of powers and judicial review.
- Therefore, all of the statement is correct, so the correct answer is option (d).

**31. Which one of the following statements about Rig Veda is not correct?**

- (a) Deities were worshipped through prayer and sacrificial rituals
- (b) The Gods are presented as powerful, who could be made to intervene in the world of men via the performance of sacrifices
- (c) The Gods were supposed to partake of the offerings as they were consumed by the fire
- (d) The sacrifices was performed in the temples

**Ans : (d)** During the Rigveda, Yojnas were not performed in temples; Yojnas were performed in open spaces. The other options are correct : Gods were worshipped and prayed to through yojnas, goods were considered powerful and offerings reached the gods through fire.

**32. Classification of an enterprise into public or private sector is based on**

- (a) number of employees in the enterprise
- (b) ownership of assets of the enterprise
- (c) employment condition for workers in the enterprise
- (d) nature of products manufactured by the enterprise

**Ans : (b)** The classification of an enterprise into the public or private sector is based on the ownership of its assets. If the assets of the enterprise are owned by the government, it is a public sector enterprises. Conversely, if the assets are owned by private individuals or companies, it is private sector enterprise. Therefore, option (b) ownership of the assets of the enterprise in the correct answer.

**33. Consider the following statements about Democracy :**

1. It consists with the formation of government elected by the people.
2. In democracy, those currently in power have a fair chance of losing.
3. Each vote has one value.

**Which of the statements given above is/are correct?**

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

**Ans : (b)** All the given statements related to democracy are correct, so the correct answer is option (b).

1) In democracy, a government is formed by people who are elected.

2) In democracy, there is a possibility of the people currently in power losing power, as change of power is possible through the electoral process.

3) In democracy, every vote has the same value, so all voters have an equal voice.

**34. Which of the following nations were recently suspended with regard to the voting rights by the UNESCO for not paying their dues to it?**

Select the correct answer using the code given below.

1. USA 2. Israel  
3. Iran 4. Iraq
- (a) 1, 2, 3 and 4 (b) 1 and 2 only  
(c) 2 and 3 only (d) 3 and 4 only

**Ans : (b)** The United States (USA) and Israel were suspended from voting due to non-payment of fees by UNESCO. These countries did not make their financial contributions UNESCO was founded on 16 November, 1945 in Paris, France.

**35. Which one of the following statements about ancient Indian Mahajanapadas is correct?**

- (a) All Mahajanapadas were oligarchies where power was exercised by a group of people
- (b) All Mahajanapadas were located in eastern India
- (c) No army was maintained by the Mahajanapadas
- (d) Buddhist and Jaina texts list sixteen Mahajanapadas

**Ans : (d)** Ancient Indian Mahajanapadas are mentioned in Buddhist and Jain texts as sixteen major Mahajanapadas. These Mahajanapadas were spread across various regions of north and central India. The Mahajanapadas had different political structures, some were republic and some were monarchies. They also had military forces, and were located in different geographical regions, not just in eastern India.

**36. Match List-I with List-II and select the correct answer using the code given below the Lists :**

List-I (Person)	List-II (Role in making of the Constitution of India)
A. Rajendra Prasad	1. Member, Drafting Committee
B. T. T. Krishnamachari	2. Chairman, Constituent Assembly
C. H. C. Mukherjee	3. Chairman, Drafting Committee
D. B. R. Ambedkar	4. Vice-Chairman, Constituent Assembly

**Code:**

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

<b>Ans : (a)</b>			
	<b>List-I (Person)</b>		<b>List-II (Role in making of the Constitution of India)</b>
A.	Rajendra Prasad	2.	Chairman, Constituent Assembly
B.	T.T. Krishnamachari	1.	Member, Drafting Committee
C.	H.C. Mukherjee	4.	Vice-Chairman, Constituent Assembly
D.	B.R. Ambedkar	3.	Chairman, Drafting Committee

37. **Heena Sidhu, who recently won a world Cup Gold Medal for India, is associated with**
- (a) Shooting (b) Archery  
(c) Weightlifting (d) Boxing

**Ans : (a)** Heena Sidhu is an Indian sport shooter.

- In 2013, Sidhu became the first Indian pistol shooter to win a gold medal in an ISSF World Cup finals when she won the 10-meter air pistol event.

38. **The only inscribed stone portrait of Emperor Ashoka has been found at**
- (a) Sanchi (b) Amaravati  
(c) Kanaganahalli (d) Ajanta

**Ans : (c)** The only engraved rock portrait of Emperor Ashoka has been found in Kanaganahalli. This portrait depicts the religious and cultural activities of Ashoka's region. Kanaganahalli, located in Karnataka, is an important site of Ashoka's time where such ancient artifacts have been found. Ashoka's engraved portraits have not been found in other places like Sanchi, Amravati and Ajanta.

39. **The citizenship means**
- full civil and political rights of the citizens
  - the right of suffrage for election to the House of the People (of the Union) and the Legislative Assembly of every State
  - the right to become a Member of the Parliament and Member of Legislative Assemblies
- Select the correct answer using the code given below
- (a) 1 and 2 only (b) 1 and 3 only  
(c) 2 and 3 only (d) 1, 2 and 3

**Ans : (d)** The rights and duties of citizenship are described in Articles 5 to 11 of the Indian Constitution, which deal with Indian Citizenship and its rules.

- Citizenship means full civil and political rights of the citizens, including the right to vote for election to the House of the People (of the Union) and the Legislative Assembly of every state. In addition, it also confers the right to become a member of Parliament and the Legislative Assemblies.

40. **The Committee on Public Accounts under the Constitution of India is meant for**

- the examination of accounts showing the appropriation of sums granted by the House for the expenditure of the Government of India
- scrutinizing the report of the Comptroller and Auditor General
- suggesting the form in which estimates shall be presented to the Parliament

Select the correct answer using the code given below

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

**Ans : (c)** The Public Accounts Committee under the Constitution of India is responsible for the following functions :

- Examining the accounts showing the appropriations of grants made by the House for the expenditure of the Government of India.
- Scrutinizing the statements submitted by the Comptroller and Auditor General.

Suggesting the form in which the estimates should be presented to the parliament : This function is not a part of the Public Accounts Committee.

Therefore, the correct answer is option (c).

41. **Which one of the following was a temple built by the Chola Kings?**

- (a) Brihadiswara Temple, Tanjavur  
(b) Meenakshi Temple, Madurai  
(c) Srirangam Temple, Thiruchirappalli  
(d) Durga Temple, Aihole

**Ans : (a)** Brihadiswara Temple, Thanjavur is a major temple built by the Chola kings. It was built in the 11<sup>th</sup> century by king Rajaraja Chola and is located in Tamil Nadu.

Other options include Meenakshi Temple, Madurai and Srirangam Temple, Tiruchirappalli, but these are not from the Chola period. Fort Temple, Aihole was built by the Chaluka kings.

42. Which among the following was the reason of the resignations of the Indian ministers in all the provinces in the year 1939?

- The Governors refused to act as constitutional heads
- The Centre did not provide the required financial help to provinces
- The Governor-General converted Indian administration from federal to unitary one because of the beginning of the Second World War
- India was declared a party to the Second World War without the consent of the provincial governments

**Ans : (d)** In the year 1939, Indian minister decided to resign in all the provinces as the British Government declared India a participant in the Second World War without the consent of the provincial governments. This decision caused discontent and reassignment among the Indian leaders as they were not allowed to participate in the war and neither the opinion of the provincial governments was taken. As a result, all the provincial ministers resigned from their posts en masse.

43. The Union Ministry of Environment and Forest recently approved in principle a proposal for Western Ghats Development prepared by K. Kasturirangan-led panel. The panel has recommended a ban on development activities in around 60000 sq. km ecologically sensitive area spread over

- Gujarat, Andhra Pradesh, Tamil Nadu, Maharashtra, Kerala and Karnataka
- Gujarat, Maharashtra, Goa, Karnataka, Kerala and Tamil Nadu
- Odisha, Maharashtra, Goa, Kerala, Andhra Pradesh and Tamil Nadu
- Karnataka, Odisha, Gujarat, Kerala, Maharashtra and Tamil Nadu

**Ans : (b)** The K. Kasturirangan panel's proposed ecologically sensitive zone is spread across the Western Ghats in the states of Gujarat, Maharashtra, Goa, Karnataka, Kerala and Tamil Nadu. It covers an area of about 60,000 sq.km, where restrictions on development activities have been recommended.

44. The legislative power of the Parliament includes making laws

- on matters not enumerated in the Concurrent List and State List
- in respect of entries in the State List if two or more State Legislatures consider it desirable
- for implementing any treaty, agreement or convention with any country even if it falls in the State List

Select the correct answer using the code given below.

- 2 only
- 1 and 2 only
- 1 and 3 only
- 1, 2 and 3

**Ans : (d)** The legislative power of Parliament to make laws extends to :

- On any matter not enumerated in the concurrent list and the state list.
- With respect to entries in the State list, if the Legislatures of two or more states consider it desirable.
- For the implementation of treaty, agreement or convention entered into with any country, even if it falls in the State list.

Therefore, the correct answer is option (d).

45. Match List-I with List-II and select the correct answer using the code given below the Lists :

List-I (Temple)	List-II (Town)
A. Kailasanathar	1. Bhubaneshwar
B. Lingaraj	2. Khajuraho
C. Kandariya Mahadev	3. Mount Abu
D. Dilwara	4. Kanchipuram

Code:

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

**Ans : (b)**

	List-I (Temple)	List-II (Town)
A.	Kailasanathar	4. Kanchipuram
B.	Lingaraj	2. Khajuraho
C.	Kandariya Mahadev	1. Bhubaneshwar
D.	Dilwara	3. Mount Abu

46. 'Inclusive growth' is a phrase used in India's

- 9th Plan
- 10th Plan
- 11th Plan
- 12th Plan

Select the correct answer using the code given below.

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

**Ans : (c)** 'Inclusive Growth' has been used in India's Eleventh Plan (2007-2012) and Twelfth Plan (2012-2017). This concept was included in these plans to promote social inclusion along with economic growth. Thus, the correct answer is option (c).

47. Who among the following was not associated with the activities of the Theosophical Society?

- Madame H. P. Blavatsky
- Mr. A. O. Hume
- Col. H. S. Alcott
- Mrs. Annie Besant

**Ans : (b)** The Theosophical Society was founded in 1875 by Madame H.P. Blavatsky, Colonel H.S. Alcott, and others. The Society aimed to promote the unity of religion, philosophy and science and focused particularly on Eastern religious thought and mystical traditions.

- Mr. A.O. Hume, was a prominent Indian public figure and religious thinker, but had no direct connection with the Theosophical Society. He was notably one of the founders of the Indian National Congress and was active in the field of Indian politics and social reform.

48. There are provisions in the Constitution of India which empower the Parliament to modify or annual the operation of certain provisions of the Constitution without actually amending them. They include

1. any law made under Article 2 (relating to admission or establishment of new States)
2. any law made under Article 3 (relating to formation of new States)
3. amendment of First Schedule and Fourth Schedule

Select the correct answer using the code given below.

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

**Ans : (c)** It is correct to mention the power of Parliament to modify or annual certain provisions of the constitution for enforcement.

The provisions mentioned are :

- 1) Any law made under Article 2 (relating to the admission or establishment of new states).
- 2) Any law made under Article 3 (relating to the creation of new states).
- 3) Amendment of the First Schedule and the Fourth Schedule.

These three provisions give parliament the power to make provisions through the legislature without amending the constitution.

49. Which of the following is/are the objective(s) of 'Mahatma Gandhi Pravasi Suraksha Yojana'?

The encourage and enable the overseas Indian workers by giving Government contribution to

1. save for their return and resettlement
2. save for their old age
3. obtain a life insurance cover against natural death for the entire life of the worker

Select the correct answer using the code given below.

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

**Ans : (b)** The main objective of the 'Mahatma Gandhi Pravasi Suraksha Yojana' is to encourage and enable overseas Indian workers through Government contribution for the following purpose :

- To save for their return and rehabilitation.
- To save for their old age.

The scheme does not include life insurance against natural death.

50. The Society of Jesus, whose followers were called Jesuits, was set up by

- (a) Martin Luther (b) Ulrich Zwingli  
(c) Erasmus (d) Ignatius Loyola

**Ans : (d)** Ignatius Loyola and his six companions formed a group in Paris that founded the Society of Jesus in 1540 after receiving permission from the Pope in 1534. The main purpose of this organisation was to serve the catholic church and spread Christianity, especially through education, missionary work, and philanthropy.

51. The functions of the Committee on Estimates, as incorporated in the Constitution of India, shall be to

1. report what economies, improvements in organization, efficiency or administrative reform may be effected
2. suggest alternative policies in order to bring about efficiency and economy in administration
3. examine whether the money is well laid out within the limits of the policy implied in the estimates
4. examine the reports, if any, of the Comptroller and Auditor General on the public undertakings

Select the correct answer using the code given below.

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

**Ans : (c)** The following are the functions of the estimates committee in the constitution of India :

- To report on whether economy, improvement in organisation efficiency or administrative reform can be brought about.
  - To suggest alternative policies in order to bringing about efficiency and economy in administration.
  - To examine whether money has been well laid out within the limits of policy contained in the estimates.
- It is not the function of the estimates committee to examine the reports of the Comptroller and Auditor General on public undertakings but it is the function of the Public Accounts Committee.

52. The principle of 'collective responsibility' under parliamentary democracy implies that

1. a motion of no-confidence can be moved in the Council of Ministers as a whole as well as an individual minister
2. no person shall be nominated to the Cabinet except on the advice of the Prime Minister
3. no person shall be retained as a member of the Cabinet if the Prime Minister says that he shall be dismissed

Select the correct answer using the code given below.

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

**Ans : (d)** The principle of 'Collective responsibility' in parliamentary democracy implies that the entire Council of Ministers is jointly responsible to the Parliament. It implies the following :

- A no-confidence motion can be moved against the Council of Ministers and if the motion is passed, the entire Council of Ministers has to resign.
- No member of the Council of Ministers can be appointed without the advice of the Prime Minister.
- If the Prime Minister decides to remove a minister, that minister, cannot remain in the Council of Ministers.

Therefore, the correct answer is option (d).

53. Consider the following statements :

1. Forming a cooperative society is a Fundamental Right in India.
2. Cooperative societies do not fall within the ambit of the Right to Information Act, 2005

Which of the statements given above is/are correct?

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

**Ans : (c)** Analysis of the following statements related to co-operative societies in India :

- Statement 1<sup>st</sup> is correct because 97<sup>th</sup> constitutional Amendment Act, 2011 added cooperative societies to Part IX(B) of the constitution and gave the right to form cooperative societies to citizens under Article 19(1) (c), which is considered a fundamental right.
- Statement II<sup>nd</sup> is also correct because cooperative societies do not fall within the purview of the Right to Information Act, 2005 as this Act applies to government bodies and organizations, while cooperative societies generally operate as private organizations.

Hence, option (c) is the correct answer.

54. Consider the following statements concerning the initial phase of the Industrial Revolution in England :

1. England was fortunate in that coal and iron ore were plentifully available to be used in industry.
2. Until the eighteenth century, there was a scarcity of usable iron.

Which of the statements given above is/are correct?

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

**Ans : (c)** Analyze the following statements with reference to England in the early stages of the Industrial Revolution :

- England was fortunate that coal and iron ore were available in sufficient quantities for use in industry.
- There was a shortage of usable iron until the eighteenth century.

Thus, both the statements are correct. So, the correct answer is option (c).

55. Certain Bills cannot be introduced or proceeded with unless the recommendation of the President is received. However, no recommendation is required in some other cases. In which one of the following cases such recommendation is not required?

- (a) For introduction of Bills and for moving amendments relating to financial matters  
(b) For introduction of a Bill relating to formation new State or of alteration of areas of existing States  
(c) For moving of an amendment making provision for the reduction or abolition of any tax  
(d) For introduction of a Bill or moving of an amendment affecting taxation in which States are interested

**Ans : (c)** The Indian Constitution requires the President's assent for the introduction or assent of some bills, but not in some cases. In particular, proposing an amendment to provide for the reduction or abolition of a tax does not require the President's assent. In contrast, bill affecting financial matters the creation of new states, or taxation by states do require the President's assent.

56. Consider the following statements about Pragati missile system of India :

1. It is a short range solid fuel missile system.
2. It has all weather day and night operational launch capability.

Which of the statements given above is/are correct?

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

**Ans : (c)** The 'Pragati' missile system is a solid fuel based system with short range. It has effective operational launch capacity in all weather and day and night conditions. Both these features are of the system.

Hence, the correct answer is option (c).

57. Consider the following statements about the First Session of the Indian National Congress :

1. It was held in Bombay in 1885.
2. Surendranath Banerji could not attend the Session due to the simultaneous session of the Indian National Conference.

Which of the statements given above is/are correct?

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

**Ans : (c)** The first session of the Indian National Congress was held in Bombay (now Mumbai) on 28-31 December 1885.

- Surendranath Banerjee could not attend this session as the Indian National Conference was also in session at that time, which was an important reason for his absence. Hence, both the given statements are correct.

58. After a Bill has been passed by the Houses of the Parliament, it is presented to the President who may either give assent to the Bill or withhold his assent. The President may

- (a) assent within six months  
(b) assent or reject the Bill as soon as possible  
(c) return the Bill as soon as possible after the Bill is presented to him with a message requesting the House to reconsider the Bill  
(d) withhold his assent even if the Bill is passed again by the Houses

**Ans : (c)** The President can accept, reject or return the bill for reconsideration. If the President sends the bill for reconsideration, the Parliament has to reconsider the bill. If the Parliament passes it again, then the President has to take the final decision on the bill.

59. Consider the following statements about Indira Gandhi Prize for Peace, Disarmament and Development :

1. Angela Merkel, Chancellor of Germany, was selected for the Prize for the year 2013.
2. The award is accorded annually to individuals only.

Which of the statements given above is/are correct?

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

**Ans : (a)** The Indira Gandhi Prize for Peace, Disarmament and Development is awarded every year since 1986 by the Indira Gandhi Memorial Trust in honour of former Prime Minister of India Indira Gandhi.

- Both the statements given about the Indira Gandhi Prize for peace, Disarmament and Development are correct.

So, the correct answer is option (b).

60. According to the Companies Act, 2013, 'nominal capital' implies

- (a) such part of capital, which has been called for payment
- (b) the maximum amount of share capital of a company
- (c) such part of capital, which has been received by a company from its shareholders
- (d) such capital as the company issues from time to time for subscription

**Ans : (b)** 'Authorized Capital' refers to the maximum capital that a company specifies in its constitution and within which it can issue shares. This amount represents the maximum limit of the company's share capital and is different from the capital contributed by the company's shareholders.

61. "The Draft Constitution as framed only provides a machinery for the government of the country. It is not a contrivance to install any particular party in power as has been done in some countries. Who should be in power is left to be determined by the people, as it must be, if the system is to satisfy the test of democracy."

The above passage from Constituent Assembly debates is attributed to

- (a) Pandit Jawaharlal Nehru
- (b) Dr. B. R. Ambedkar
- (c) Maulana Abul Kalam Azad
- (d) Acharya J. B. Kriplani

**Ans : (b)** Dr. Ambedkar played a key role in the creation of the Indian Constitution and as the chairman of the Constituent Assembly, he gave deep thought to the structure and objectives of the constitution. This quote of his shows that the main purpose of the constitution is only to provide a mechanism not to install a particular political party in power.

- Ambedkar made it clear that the constitution leaves the right of choice of power to the people to meet the test of democracy.
- This idea was important to ensure the reality of democracy and fairness of governance.

62. Which of the following statements are correct regarding Joint Session of Houses of the Parliament in India?

1. It is an enabling provision, empowering the President to take steps for resolving deadlock between the two Houses.
2. It is not obligatory upon the President to summon the Houses to meet in a joint sitting.
3. It is being notified by the President.
4. It is frequently resorted to establish the supremacy of the Lok Sabha.

Select the correct answer using the code given below.

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

**Ans : (b)** In India, a joint session of the Houses of Parliament is convened under Article 108 of the Constitution. This session is called when differences arise between the Lok Sabha and the Rajya Sabha on a bill. Following are the statements, related to the joint session of the Houses of Parliament in India.

- This is an enabling provision empowering the President to take steps to resolve the deadlock between the two Houses.
- It is not binding on the President to Summon the Houses to meet in a joint sitting.
- It is notified by the President.
- The purpose of the Joint session is not to establish the supremacy of the Lok Sabha but to create consensus between the two Houses.

Therefore, the correct answer is option (b).

63. Match List-I with List-II and select the correct answer using the code given below the Lists :

List-I (Text)	List-II (Author)
A. Kitab-ul Hind	1. Ibn Batuta
B. Rehla	2. Al-Biruni
C. Humayun Nama	3. Lahori
D. Badshah Nama	4. Gulbadan Begum

Code:

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

**Ans : (d)** Correctly matched -

List-I (Text)	List-II (Author)
A. Kitab-ul Hind	– Al-Biruni
B. Rehla	– Ibn Battuta
C. Humayun Nama	– Gulbadan Begum
D. Badshah Nama	– Lahori

64. Which of the following statements in the context of structure of the Parliament is/are correct?

1. The Parliament of India consists of the President, the Council of States and the House of the People.
2. The President of India is directly elected by an electoral college consisting of the elected members of both the Houses of the Parliament only.

Select the correct answer using the code given below.

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

**Ans : (a)** Following is the analysis of the statements made with reference to the structure of the Parliament of India:

- Statement- I is correct, the parliament of India consists of three components : the President, the Rajya Sabha (upper house), and the Lok Sabha (lower house).
- Statement - II is wrong, the president of India is elected by an electoral college consisting of the elected members of both Houses of Parliament and the elected members of the State Legislative Assemblies.

Thus, the correct answer is option (a).

65. Internal Security Academy is located at

- (a) Nashik (b) Mount Abu  
(c) Hyderabad (d) Pune

**Ans : (b)** The Internal Security Academy (ISA) was established at Mount Abu (Rajasthan) on 1<sup>st</sup> February 1975.

- The academy was established by the Government of India with the aim of imparting training on various aspects of internal security. It is the premier training institute of the Central Reserve Police Force (CRPF) of India.

66. Which one among the following was not a proposal of the Cabinet Mission, 1946?

- (a) The Constituent Assembly was to be constituted on the democratic principle of population strength
- (b) Provision for an Indian Union of Provinces and States
- (c) All the members of the Constituent Assembly were to be Indians
- (d) British Government was to supervise the affairs of the Constituent Assembly

**Ans : (d)** One proposal that was not there in the Cabinet Mission 1946 was -

The activities of the Constituent Assembly were to be supervised by the British Government. The proposal was not included in the agenda of the Cabinet Mission. The Cabinet Mission proposed a constitutional plan for India, which included the formation of a Constituent Assembly and the creation of the Indian Union, but did not propose British government supervision over the functioning of the Constituent Assembly.

67. Which of the statements relating to the Deputy Speaker of the Lok Sabha is/are correct?

1. The office of the Deputy Speaker acquired a more prominent position after the enforcement of the Constitution of India in 1950.
2. He/She is elected from amongst the members.
3. He/She holds office until he/she ceases to be a member of the House.

Select the correct answer using the code given below.

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

**Ans : (c)** Following are the correct statements related to the Deputy Speaker of Lok Sabha :

- After the implementation of the Indian Constitution in 1950, the post of Deputy Speaker got more prominent place.
- The Deputy Speaker is elected from among the members.
- He remains in office as long as he is a member of the House.

Thus, the correct answer is option (c)

68. Consider the following statements from Kalhana's Rajatarangini :

1. The common people ate rice and Utpala-saka (a wild vegetable of bitter taste).
2. Harsha introduced into Kashmir a general dress befitting a king which included a long coat.

Which of the statements given above is/are correct?

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

**Ans : (c)** According to Kalhana's Rajatarangini :

- The common people eat rice and utpala - saka (a wild vegetable of bitter taste).
- Harsha introduced in Kashmir a common dress befitting a king, which consisted of a long coat.

So, both of the above statements are correct. The correct answer is option (c).

69. Which of the following statements relating to Comptroller and Auditor General in India is/are correct?

1. He/She is not an officer of the Parliament but an officer under the President.
2. He/She is an independent constitutional authority not directly answerable to the House.

Select the correct answer using the code given below.

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



**Ans : (c)** Consider the following statements regarding the Comptroller and Auditor General of India (CAG) :

- The post of CAG is established under Article 148-151 of the constitution. The CAG is appointed by the President and functions under the President and not under Parliament.
- The CAG is a independent constitutional authority and his independence is ensured in the constitution. The main function of the CAG is to audit government financial accounts and report to Parliament. While he reports to Parliament, he is not directly accountable to Parliament but to the President for maintaining his independence and impartiality.
- Both statements are correct. So, the correct answer is option (c).

**70. The Departmental Committee of the Parliament of India on the Welfare of the Scheduled Castes (SCs) and the Scheduled Tribes (STs) shall**

1. examine whether the Union Government has secured due representation of the SCs and the STs in the services and posts under its control
2. report on the working of the welfare programmes for the SCs and the STs in the Union Territories

Select the correct answer using the code given below.

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

**Ans : (c)** Consider the following statements regarding the Departmental Committee of Parliament of India on the Welfare of Scheduled Castes and Scheduled Tribes:

- It will examine whether the Union Government has ensured the desirable representation of the Scheduled Castes and Scheduled Tribes in the services and post under its control.
- It will submit a report on the working of welfare programmes for the Scheduled Castes and Scheduled Tribes in the Union Territories.

So, the correct answer is option (c).

**71. Consider the following statements :**

**Statement I :**

Clay layers are poor aquifers

**Statement II :**

The inter-particle space of clay minerals is the least

Select the correct answer using the code given below.

- (a) Both the Statements are individually true and Statement II is the correct explanation of Statement I  
(b) Both the Statements are individually true but Statement II is not the correct explanation of the Statement I  
(c) Statement I is true but Statement II is false  
(d) Statement I is false but Statement II is true

**Ans : (a)** Clay minerals have very fine particle that are closely packed together leaving very little space between them. This lack of space makes it difficult for water to flow through the clay layer, resulting in poor aquifer properties.

Clay minerals have a small particle size and a large surface area to volume. Which gives them unique yes the inter-particle space of clay minerals is the least. Thus, the correct answer is option (a).

**72. Match List-I with List-II and select the correct answer using the code given below the Lists :**

List-I (Irrigation/Power project)	List-II (River)
A. Bhakra Nangal	1. Bhagirathi
B. Dul Hasti	2. Mahanadi
C. Hirakund	3. Chandra
D. Tehri	4. Sutlej

Code:

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

**Ans : (b)** Correctly matched -

List-I (Irrigation/Power Project)	List-II (River)
A. Bhakra Nangal	– 4. Sutlej
B. Dul Hasti	– 3. Chandra
C. Hirakund	– 2. Mahanandi
D. Tehri	– 1. Bhagirathi

**73. Which of the following statements is/are correct regarding fats?**

1. Fats are needed for the formation of cell membrane.
2. Fats help the body to absorb calcium from food.
3. Fats are required to repair damaged tissue.
4. Body cannot release energy in fats as quickly as the energy in carbohydrates.

Select the correct answer using the code given below.

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

**Ans : (a)** Analysis of statements related to fat

- Fat are an important component of the cell membrane.
- Calcium absorption depends mainly on Vitamin D, not on facts.
- Tissue repair mainly depends on proteins.
- Carbohydrates are fast sources of energy while fats are slow sources of energy of the statement given above regarding fat, only statement 1 and statement 4 are correct. So, the correct answer is option (a).

74. **Addition of ethylene di-bromide to petrol**
- increases the octane number of fuel
  - helps elimination of lead oxide
  - removes the sulphur compound in petrol
  - serves as a substitute of tetraethyl lead

**Ans : (b)** The main purpose of adding Ethylene Di-bromide (EDB) to petrol is that it converts the Lead Oxide produced during the use of Tetraethyl Lead (TEL) into volatile Lead Bromide, so that it can flow out of the engine and does not get deposited inside the engine.

75. **Which of the following statements regarding the duration of day and night is correct?**
- Difference is least near the Equator and progressively increases away from it
  - Difference is maximum at the Equator and progressively decreases away from it
  - Difference is least at the Tropics and progressively increases towards the Equator and Poles
  - Difference is maximum at the Tropics and progressively decreases towards the Equator and Poles

**Ans : (a)** Near the equator, the duration of day and night is almost equal (about 12 hours). As we move away from the equator (towards the North and South Poles), the difference between day and night increases, especially at higher latitudes.

76. **The position, relative size and nature of the image formed by a concave lens for an object placed at infinity are respectively**
- at focus, diminished and virtual
  - at focus, diminished and real
  - between focus and optical centre, diminished and virtual
  - between focus and optical centre, magnified and real

**Ans : (a)** Analyzing the image of a body located at infinity (such as a distant object) through a concave lens:

- For a concave lens the image of an object located at infinity is at focus of the lens.
- The relative magnification of the image formed by a concave lens is always negative and is diminished.
- The image formed by a concave lens is always virtual and located behind the lens.

77. **People suffering from 'anorexia nervosa'**
- develop paralysis
  - show poor reflex
  - cannot speak properly
  - eat very little and fear gaining weight

**Ans : (d)** Anorexia Nervosa is a mental health disorder in which a person suffers excessive weight loss and a distorted perception of body image. People suffering from this disorder often show little interest in eating food and try to lose weight excessively.

78. **Match List-I with List-II and select the correct answer using the code given below the Lists :**

**List-I**  
(Hydroelectric power station)

**List-II**  
(Location in the map)

A.Srisailem  
B.Sabarigiri  
C.Hirakund  
D.Sileru



**Code :**

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

**Ans : (b)** The correctly matched-  
(Hydroelectric power station)

	(Location)
A. Srisailem	– (3) Andhra Pradesh
B. Sabarigiri	– (4) Kerala
C. Hirakund	– (1) Odisha
D. Sileru	– (2) Andhra Pradesh

79. **Date of manufacture of food items fried in oil should be checked before buying because oils become rancid due to**

- oxidation
- reduction
- hydrogenation
- decrease in viscosity

**Ans : (a)** It is important to check the manufacturing date of foods fried in oil because oils can become rancid over time due to oxidation.

This is a chemical process in which oil spoils due to oxidation when exposed to air, which can change its smell and taste.

80. **No matter how far you stand from a mirror, your image appears erect. The mirror is likely to be**

- either plane or convex
- plane only
- concave
- convex only

**Ans : (a)** If the image of an object in front of a mirror is always erect then the mirror is of this type

- Plane mirror
  - Convex mirror
- A plane mirror always forms a virtual and erect image of all objects. The size of the image is always equal to the size of the object.

Whereas is convex mirror we have-

$$\frac{1}{d_i} + \frac{1}{d_o} = \frac{1}{f}$$

Here the focal length of the mirror is positive while the distance of the object relative to the mirror is negative.

So, the image distance is always positive and hence we get virtual and erect image of the object in front of the convex mirror.

**81. Veliconda group of low hills is a structural part of**

- (a) Nilgiri Hills
- (b) Western Ghats
- (c) Eastern Ghats
- (d) Cardamom Hills

**Ans : (c)** The Veliconda Group is a structural part of the Eastern Ghats. The Eastern Ghats is a mountain range located on the eastern coast of India, extending from Odisha to Tamil Nadu. The Veliconda Group is a part of the mountain range and falls under Andhra Pradesh. This mountain range is located away from the coast and its heights are generally lower than the Western Ghats.

**82. Rachel Carson's famous book, Silent Spring refers to**

- (a) geology of terrain where river originates
- (b) ecology and degradation of a hot spring due to excessive tourism
- (c) biodiversity of an unknown terrain rich in flora and fauna
- (d) the death of songbirds due to eating insects poisoned with pesticides

**Ans : (d)** Rachel Carson's book "Silent Spring" was published in 1962 and marked a turning point in environmental science. The book mainly focused on the indiscriminate use of DDT and other chemical pesticides and their harmful effects. Carson highlighted the environmental damage caused by the widespread use of these chemicals, especially on the population of songbirds.

**83. What would be the influence on the weather conditions when in mid-winter a feeble high pressure develop over the north-western part of India?**

1. High and dry winds would blow outward from this high pressure area.
2. The northern plain would become cold.
3. Scorching winds (locally called loo) would blow during the day-time.
4. There would be torrential rains brought by thunderstorms.

Select the correct answer using the code given below.

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

**Ans : (a)** The development of a weak high pressure area over the north-western part of India in mid-winter will have the following effects :

- High and dry winds will blow outwards from this pressure area.
- The northern plains will become cold.
- Scorching winds (locally called loo) and torrential rains brought by thunderstorms are usually associated with the summer season.

Therefore, the correct answer will be option (a).

**84. When an incandescent electric bulb glows**

- (a) the electric energy is completely converted into light energy
- (b) the electric energy is partly converted into light energy and partly into heat energy
- (c) the light energy is converted into electric energy
- (d) the electric energy is converted into magnetic energy

**Ans : (b)** When an incandescent electric bulb glows, electric current flows through the tungsten filament, causing the filament to heat up to a high temperature.

- Due to this heat, the filament emits energy in the form of the thermal radiation, which includes visible light. In this process, a large portion of the electrical energy is converted into heat energy and a portion into light energy.

**85. Which method of water purification does not kill microorganism?**

- (a) Boiling
- (b) Filtration
- (c) Chlorination
- (d) UV-irradiation

**Ans : (b)** Filtration method removes solid particles and impurities from water, but does not kill microorganism (bacteria, viruses). Therefore, filtration method of water purification does not kill microorganisms.

**86. Which one of the following is a land-locked harbour?**

- (a) Vishakhapatnam
- (b) Ennore
- (c) Mumbai
- (d) Haldia

**Ans : (a)** Visakhapatnam is a major port located in the state of Andhra Pradesh, India. It is situated on the east coast of India and is surrounded by the Eastern Ghats on one side and the Bay of Bengal on the other side. The port is located at the mouth of the River Godavari.

Which means it is not directly open to the sea. The presence of land on both sides makes it a land-locked harbor.

**87. Which of the following statements is/are correct?**

1. Amnion contains fluid.
2. Ultrasound scan can detect the sex of an embryo.

Select the correct answer using the code given below.

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

**Ans : (c)** Ultrasound is not a liquid; it is a form of sound waves that can travel through a liquid medium (such as water or amniotic fluid).

- Ultrasound can be used to determine the sex of the fetus.

Therefore, the correct answer is option (c).

88. Iron sheet kept in moist air gets covered with rust. Rust is
- an element
  - a compound
  - a mixture of iron and dust
  - a mixture of iron, oxygen and water

**Ans : (b)** Rust is a compound that forms from the chemical reaction between iron, oxygen, and water. It is specifically formed from the reaction between iron and oxygen, and the presence of water promotes this reaction.

89. You are asked to jog in a circular track of radius 35 meters. Right at one complete round on the circular track, your displacement and the distance covered by you are respectively
- zero and 220 meters
  - 220 meters and zero
  - zero and 110 meters
  - 110 meters and 220 meters

**Ans : (a)** After completing one full revolution on a circular path your displacement (straight distance between initial and final position) is zero.

- distance covered to complete the one round on circular path is-

$$2\pi r$$

$$= 2 \times \frac{22}{7} \times 35 = 220 \text{ m}$$

Therefore, the displacement will be m and the distance travelled will be 220 m.

90. Consider the following statements :
- Weathered rock with change of volume is called scapolite.
  - The process of landscape formation by deep weathering followed by stripping of the scapolite is called etching.
- Which of the statements given above is/are correct?
- 1 only
  - 2 only
  - Both 1 and 2
  - Neither 1 nor 2

**Ans : (c)** The soil profile is made up of different layers (mainly 3), running parallel to the surface and each layer is called Soil Horizon. The lowest horizon is the weathered parent material from which the soil has developed. This layer is the first stage in the soil formation process and eventually forms the above two layer. This soil horizon is known as Scapolite.

- Etching is a process where the bedrock undergoes a considerable amount of subsurface weathering, corrosion, and decomposition of scapolite. The landscape thus formed is called an Etch plain.

91. Nitric oxide pollution can lead to all of the following, except
- leaf spotting in plants
  - bronchitis related respiratory problems in human
  - production of corrosive gases through photochemical reaction
  - silicosis in human

**Ans : (d)** Nitric oxide pollution can cause the following problems : leaf spot in plants, respiratory problems related to bronchitis, and production of corrosive gases by photochemical reactions.

However, nitric oxide does not cause silicosis in humans, as silicosis is caused by silica dust.

Therefore, the correct answer is option (d).

92. Arrange the locations of four oil refineries of India from west to east.

- Koyali-Kochi-Panipat-Mathura
- Kochi-Koyali-Panipat-Mathura
- Koyali-Panipat-Kochi-Mathura
- Koyali-Panipat-Mathura-Kochi

**Ans : (a)** The locations of four oil refineries of India from west to east is - Koyali-Kochi-Panipat-Mathura.

93. Match List-I with List-II and select the correct answer using the code given below the Lists :

List-I (Author)	List-II (Concept/Book)
A. Hobbes	1. Natural Law
B. Rousseau	2. 'Might is Right'
C. Locke	3. Discourse on Inequality
D. Adam Smith	4. The Wealth of Nations

Code:

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

**Ans : (b)** Correctly matched -

List-I (Author)	List-II (Concept/Book)
A. Hobbes	2. 'Might is Right'
B. Rousseau	3. Discourse on Inequality
C. Locke	1. Natural Law
D. Adam Smith	4. The Wealth of Nations

94. Which of the following statements relating to earthquakes is/are correct?

- The point of origin of an earthquake is called the epicenter.
- The lines joining the places which were affected by earthquake at the same point of time are called homoseismal lines.

Select the correct answer using the code given below :

- 1 only
- 2 only
- Both 1 and 2
- Neither 1 nor 2

**Ans : (b)** The point of origin of an earth quake is called the focus or hypocenter and the point on the surface directly above it is called the epicenter.

- It is the location on the Earth's surface directly above the focus, which is the point within the Earth where the earthquake originates.

2. The lines joining the places that were affected by an earthquake at the same point in time are called isoseismal lines, not homoseismal lines. Isaseismal lines help to depict the intensity and extent of the earthquake's affects. They often concentric waves radiating outward from the epicenter of the earthquake.

95. Which one of the following elements is present in green pigment of leaf?

- (a) Magnesium (b) Phosphorus  
(c) Iron (d) Calcium

**Ans : (a)** The pigment responsible for the green color of leaves is chlorophyll, which is essential for the process of photosynthesis in plants. The chlorophyll molecule contains a central magnesium (Mg) ion, which is important for its green color and ability to absorb light energy. Magnesium serves as a structural element of chlorophyll and without it chlorophyll cannot function properly.

96. Match List-I with List-II and select the correct answer using the code given below the Lists :

- | List-I (Gland) | List-II (Hormone)              |
|----------------|--------------------------------|
| A. Pancreas    | 1. Cortisol                    |
| B. Pituitary   | 2. Vitamin D                   |
| C. Adrenals    | 3. Thyroid stimulating hormone |
| D. Kidneys     | 4. Glucagon                    |

Code:

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

**Ans : (a)** Correctly matched -

	List-I (Gland)		List-II (Hormone)
A.	Pancreas	4.	Glucagon
B.	Pituitary	3.	Thyroid stimulating hormone
C.	Adrenals	1.	Cortisol
D.	Kidneys	2.	Vitamin D

97. The vegetation type characterized by (i) a large expanse of grassland with scattered trees and shrubs, (ii) lying between tropical rain forest and tropical steppes and deserts and (iii) flat-topped trees, is called

- (a) mid-latitude broad-leaf mixed forest  
(b) temperate rain forest  
(c) tropical savanna  
(d) mid-latitude grassland

**Ans : (c)** Tropical savanna is a vegetation type consisting of large expanses of grassland with scattered trees and shrubs. It lies between tropical rainforests and tropical steppes and deserts. It's trees are generally flat topped.

98. Which one of the following gases is supporter of combustion?

- (a) Hydrogen (b) Nitrogen  
(c) Carbon dioxide (d) Oxygen

**Ans : (d)** Oxygen is a combustion - supporting gas because it supports the process of combustion (burning) and help keep the fire burning.

99. Which of the following is/are west-flowing river(s) of India?

1. Mahanadi 2. Krishna  
3. Narmada 4. Cauvery

Select the correct answer using the code given below.

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

**Ans : (c)** The Narmada River is a west-flowing river in India. The other given rivers - the Mahanadi, the Krishna, and the Kaveri - flow eastward.

100. A typical black hole is always specified by

- (a) a (curvature) singularity  
(b) a horizon  
(c) either a (curvature) singularity or a horizon  
(d) a charge

**Ans : (b)** A typical black hole is specified by a "horizon" Event horizon is the boundary making the limits of a black hole. This is the boundary beyond which light or any other object cannot escape.

101. Which of the following structures of a plant is responsible for transpiration?

- (a) Xylem (b) Root  
(c) Stomata (d) Bark

**Ans : (c)** Plant's stomata are responsible for transpiration. These tiny pores are located on the surface of leaves and help release water vapor into the atmosphere.

• Transpiration as well as exchange of gases occur through stomata, which is important for plant growth and health.

102. Which of the following methods is/are suitable for soil conservation in hilly region?

1. Terracing and contour bonding  
2. Shifting cultivation  
3. Contour ploughing

Select the correct answer using the code given below

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

**Ans : (a)** In hilly areas, Verdi culture and contour bonding and contour ploughing are suitable methods for soil conservation. These methods help in reducing soil erosion and conserving water. Shifting cultivation is not as effective for soil conservation.

103. A mobile phone charger is

- (a) an inverter  
(b) a UPS  
(c) a step-down transformer  
(d) a step-up transformer

**Ans : (c)** A mobile phone charger is a step down transformer. It converts electrical energy into the voltage and current required by the mobile phone battery.

**104. Which one of the following is depositional landform?**

- (a) Stalagmite (b) Lapis
- (c) Sinkhole (d) Cave

**Ans : (a)** Depositional landform is a landform that is formed by the deposition of material.

- Stalagmites are depositional landforms that form on the floors of limestone cavities, created by the deposition of dissolved minerals in water droplets.

**105. Which of the following solutions will not change the colour of blue litmus paper to red?**

- 1. Acid solution
- 2. Base solution
- 3. Common salt solution

**Select the correct answer using the code given below**

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

**Ans : (b)** Blue litmus paper turns red in acidic solution, while it remains blue in alkaline solution. The effect of salt solution depends on its type; blue litmus paper may turn red if the solution is acidic, and it may remain blue if it is alkaline.

- Acid solution - Blue litmus paper turns red.
- Basic solution - Blue litmus paper stays blue.
- Common salt solution - This solution may be neutral, but if it is acidic blue litmus paper may turn red.

Therefore, blue litmus paper does not turn red.

**106. Biodiversity is richer in**

- (a) tropical regions
- (b) polar regions
- (c) temperate regions
- (d) oceans

**Ans : (a)** Biodiversity is relatively richest in tropical regions. Tropical regions have the highest level of biodiversity due to factors such as favorable climate, high rainfall and availability of sunlight.

**107. Which of the following does not possess a specialized conducting tissue for transport of water and other substances in plants?**

- (a) Marchantia (b) Marsilea
- (c) Cycas (d) Fern

**Ans : (a)** Plants require specialised conductive tissues (such as xylem and phloem) to transport water and substances. Bryophytes (such as Marchantia) do not have these specialised tissues, while pteridophytes (such as ferns and Myrtleia) and gymnosperms (such as Cycas) do.

**108. Which of the following is the example of subsistence farming?**

- (a) Shifting cultivation
- (b) Commercial farming
- (c) Extensive and intensive farming
- (d) Organic farming

**Ans : (a)** Subsistence farming means that farming is done primarily for the livelihood of the farmer and his family, and not for commercial purposes. Shifting cultivation, in which farmers move from one place to another and cultivate, is an example of a traditional and primitive type of subsistence farming.

**109. Deficiency of which of the following elements is responsible for weakening of bones?**

- 1. Calcium
- 2. Phosphorus
- 3. Nitrogen
- 4. Carbon

**Select the correct answer using the code given below**

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

**Ans : (a)** Bone weakness is caused primarily by calcium and phosphorus deficiency. Calcium is essential for bone strength and structure, while phosphorus helps in bone formation. Nitrogen and carbon do not have a direct effect on bone weakness.

**110. Two layers of a cloth of equal thickness provide warmer covering than a single layer of cloth with double the thickness. Why?**

- (a) Because of the air encapsulated between two layers
- (b) Since effective thickness of two layers is more
- (c) Fabric of the cloth plays the role
- (d) Weaving of the cloth plays the role

**Ans : (a)** Two layers of fabric of equal thickness provide more thermal coverage than a single layer because the air trapped between the two layers is an effective insulator. This air prevents heat flow and retains body heat, increasing thermal conservation. In contrast, a single layer of fabric with no air trapped in its thickness results in a lower thermal coverage.

**111. Which of the following is/are the stage(s) of demographic transition?**

- 1. High death rate and birthrate, low growth rate
- 2. Rapid decline in death rate, continued low birthrate, very low growth rate
- 3. Rapid decline in birthrate, continued decline in death rate
- 4. Low death rate and birthrate, low growth rate

**Select the correct answer using the code given below**

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

**Ans : (d)** Following are the stages of demographic transition :

- (1) Statement I, This stage is characterized by high birth and death rates, keeping the population growth rate low.
- (4) Statement IV, Both birth and death rates are low, due to which the population growth rate also remains low.

So, the correct answer is option (d).





112. In the forest, animals like voles and wood lice feed on plant roots and barks respectively. Among the other carnivores, foxes, shrews and owls are present in that forest. Following predictions are made by a group of observers who have visited the forest:

1. If the roots of the tree develop a disease, then voles and foxes will starve and not the owls.
2. Population of voles is dependent on wood lice population through food web.
3. If owl population declines, it will indirectly affect wood lice population.
4. If barks of tree are affected due to a disease, then reduction of wood lice will affect the shrew population forcing owls to eat more voles.

Which of the above predictions is/are correct?

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

**Ans : (\*)** Officially deleted this question.

113. Which of the following is/are direct source(s) of information about the interior of the earth?

1. Earthquake wave
2. Volcano
3. Gravitational force
4. Earth magnetism

Select the correct answer using the code given below

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

**Ans : (b)** The correct answer is option (b), which states that volcanoes are the only direct source of information about the interior of the Earth. It is important to note that while earthquakes can provide some information, they are not a direct source.

114. What causes dough (a mixture of flour, water, etc.) to rise when yeast is added to it?

- (a) An increase in the temperature  
(b) An increase in the amount of the substance  
(c) An increase in the number of yeast cells  
(d) Release of carbon dioxide gas

**Ans : (d)** The yeast (fungus) present in the yeast ferments carbohydrates to produce carbon dioxide gas and alcohol. The carbon dioxide gas forms bubbles in the dough which makes the dough swell and rise.

115. Which of the following are the two main constituents of granite?

- (a) Iron and silica  
(b) Iron and silver  
(c) Silica and aluminum  
(d) Iron oxide and potassium

**Ans : (c)** The two main components of granite are silica (quartz) and aluminum (feldspar). Silica is an important mineral in granite, and aluminum is also found in feldspar, which determines the structure and properties of granite.

116. In cricket match, while catching a fast-moving ball, a fielder in the ground gradually pulls his hands backwards with the moving ball to reduce the velocity to zero. The act represents

- (a) Newton's first law of motion  
(b) Newton's second law of motion  
(c) Newton's third law of motion  
(d) law of conservation of energy

**Ans : (b)**

• While catching a fast ball a good cricket fielder moves his hand along with the ball as he increases the time of contact thereby reducing the force of contact.

• This is based of Newton's second law.

Newton's Second Law :

The rate of change of linear momentum of a system is proportional to the external force applied on the system and this change always occurs in the direction of the applied force.

$$F = ma$$

Where, F = Force, m = mass, and a = acceleration

117. Two strands of DNA are held together by

- (a) hydrogen bonds  
(b) covalent bonds  
(c) electrostatic force  
(d) van der Waals' forces

**Ans : (a)** The two strands of DNA are held together by hydrogen bonds. These bonds occur between the nitrogenous bases (adenine, thymine, guanine, and cytosine) of the two strands, which stabilize the double helix structure of DNA.

118. Which one of the following dams is constructed across Krishna River?

- (a) Ukai Dam  
(b) Krishnaraja Sagar Dam  
(c) Srisaillam Dam  
(d) Mettur Dam

**Ans : (c)** Srisaillam Dam is one of the major dams built on the Krishna River. This dam is situated on the Krishna River and is located on the border between the state of Andhra Pradesh and Telangana.

119. A metal screw-top on a glass bottle which appears to be stuck could be opened by using the fact that

- (a) the metal expands more than the glass when both are heated  
(b) the metal and glass expand identically when heated  
(c) the metal shrinks when heated  
(d) both metal and glass shrink when cooled

**Ans : (a)** To open a metal screw cap stuck on a glass bottle, both are heated. The metal cap expands faster than the glass, making the cap loose and easy to open. This is based on the principle of thermal expansion.

120. Among the following animals, choose the one having three pairs of legs.

- (a) Spider                              (b) Scorpion  
(c) Bug                                  (d) Mite

**Ans : (c)** A bedbug is a creature with three pairs of legs. Spiders, Scorpions and mites all have eight legs.



# Combined Defence Services (CDS) Exam-2014 (II)

## GENERAL KNOWLEDGE

Explanation with Solved Paper (Exam Date : 26-10-2014)

1. The upper and lower portions in common type of bi-focal lenses are respectively.
- Concave and convex.
  - Convex and concave.
  - Both concave of different focal lengths.
  - Both convex of different focal lengths.

**Ans. : (a)** A common type of bi-focal lenses consist of both concave and convex lenses. The upper portion consist of a concave lens. It facilitates distant vision the lower part is a convex lens.

2. Tungsten is used for the construction of filament in electric bulb because of its
- High specific resistance.
  - Low specific resistance.
  - High light emitting power.
  - High melting point.

**Ans. : (d)** Tungsten is used for the construction of filament in electric bulb because of its high melting point. Tungsten has a high melting point of 3695 K. Which allows it to with stand the high temperatures produced when electricity passes through the filament.

3. Inactive Nitrogen and Argon gases are usually used in electric bulbs in order to
- Increase the intensity of light emitted.
  - Increase the life of the filament.
  - Make the emitted light coloured.
  - Make the production of bulb economical.

**Ans. : (b)** Inactive nitrogen and argon are used in derrick bulbs primarily to increases the life of the filament. They do not affect the intensity or color of the emitted light.

4. In the phenomenon of dispersion of light, the light wave of shortest wavelength is
- Accelerated and refracted the most.
  - Slowed down and refracted the most.
  - Accelerated and refracted the least.
  - Slowed down and refracted the least.

**Ans. : (b)** It means the splitting of white light when it passes through a glass prism into its constituent spectrum of colors. When white light gets dispersed, the constituent colors of light slow down to varying speeds. Hence, answer is slowed down and refracted the most.

5. An oscilloscope is an instrument which allows us to see waves produced by
- Visible light
  - X- rays
  - Sound
  - Gamma rays

**Ans. : (c)** Sound waves can be see when a microphone is connected to an oscilloscope. A microphone changes the sound wave into an electrical signal. An oscilloscope in an instrument that allows you to see the waves produced by sound.

6. The distribution of electrons into different orbits of an atom, as suggested by Bohr, is
- 2 electrons in the K-orbit, 6 electrons in the L-orbit, 18 electrons in the M-orbit.
  - 2 electrons in the K-orbit, 8 electrons in the L-orbit, 32 electrons in the M-orbit.
  - 2 electrons in the K-orbit, 8 electrons in the L-orbit, 18 electrons in the M-orbit.
  - 2 electrons in the K-orbit, 8 electrons in the L-orbit, 16 electrons in the M-orbit.

**Ans. : (c)** According to Bohr, the distribution of electrons into different orbits of an atom is  $2n^2$ . Where n is number of orbits.

For K orbits  $n = 1$ ,  $\therefore$  2 electrons

For L orbits  $n = 2$ ,  $\therefore$  8 electrons

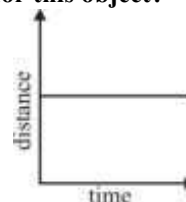
For m orbits  $n = 3$ , 18 electrons

7. Carbon or Graphite rods are used in atomic reactors as moderators for sustained nuclear chain reaction through nuclear fission process. In this process

- The neutrons are made fast.
- The protons are made fast.
- The neutrons are made slow.
- The protons are made slow.

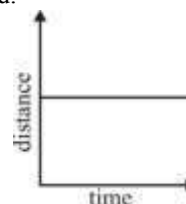
**Ans. : (c)** Carbon or graphite rods are used in atomic reactors gets as a moderators slowed down or "thermalized" neutrons have a highs probability of coursing fission in the fuel worms. Which is necessary for sustaining the nuclear chain reaction.

8. The distance-time graph for an object is shown below. Which one of the following statements holds true for this object?



- The object is moving with uniform speed.
- The object is at rest.
- The object is having non-linear motion.
- The object is moving with non-uniform speed.

**Ans. : (b)** Distance time graph is parallel to time axis. Therefore the object is rest because position of object remains unchanged.





9. For a harmonic oscillator, the graph between momentum 'p' and displacement 'q' would come out as

- (a) A straight line (b) A parabola  
(c) A circle (d) An ellipse

**Ans. : (d)** We know equation of harmonic oscillation is given by

$$q = A \sin (wt + \phi) \quad \dots(1)$$

$$\frac{q}{A} = \sin (wt + \phi) \quad \dots(2)$$

Differentiate (i) w. r. t to time

$$\frac{d}{dt} q = \frac{d}{dt} (A \sin (wt + \phi))$$

$$\frac{d}{dt} q = v$$

$$v = A \omega \cos (wt + \phi)$$

Multiplying both sides with mass (m)

$$mv = m A \omega \cos (wt + \phi)$$

$$mv = p$$

$$p = m A \omega \cos (wt + \phi)$$

$$\frac{p}{m A \omega} = \cos (wt + \phi) \quad \dots(3)$$

squaring equation (2) and (3) and adding

$$\frac{q^2}{A^2} + \frac{p^2}{(m A \omega)^2} = 1$$

Which is clearly an equation of ellipse.

10. Which one among the following is the generic name of the causal organism of Elephantiasis?

- (a) Filaria (b) Microfilaria  
(c) Wuchereria bancrofti (d) Culex pipiens

**Ans. : (c)** The scientific name of the causal organism of elephantiasis is Wuchereria Bancrofti. Elephantiasis is also known as Lymphatic Filariasis. It is a very rare condition that spreads through mosquitoes which are carriers of the Wuchereria Bancrofti.

11. Which one among the following statements is not correct?

- (a) Pulses are rich in proteins.  
(b) Milk is a rich source of Vitamin A.  
(c) Cereals are very poor source of carbohydrates.  
(d) Vegetables are rich source of minerals.

**Ans. : (c)** Cereals are very poor source of carbohydrate. The given option is not correct. Because cereals are very poor source of carbohydrates, i.e. they contain 80% of them.

12. Which of the statements given below are correct?

1. A person having blood group 'A' can donate blood to persons having blood group 'A' and blood group 'AB'.
2. A person having blood group 'AB' can donate blood to persons having blood groups 'A', 'B', 'AB' or 'O'.

3. A person with blood group 'O' can donate blood to persons having any blood group.
4. A person with blood group 'O' can receive blood from the person of any of the blood groups.

Select the correct answer using the code given below:

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

**Ans. : (d)** A person with blood 'A' has antigen A on their blood cells, and they can donate blood to individuals with blood group 'A' (who have antigen A) and blood group 'AB' (Who have both antigen A and antigen B). This statement is correct.

- A person with blood group 'AB' can donate blood to individuals with blood group 'AB' (Who have both antigen A and antigen B) but they cannot donate blood to individuals with blood group 'A' (who only have antigen A) or blood group 'B' (Who only have antigen B). Additionally, individuals with blood group 'AB' can receive blood from individuals with any blood group. This statement is not correct.
- A person with blood group 'O' can donate blood to persons having any blood. Blood group 'O' has no antigen and antibodies AB. So blood group 'O' can donate the blood of any type of blood group.
- A person with blood group 'O' can receive blood from the person of any of the blood groups. This statement is not correct.

13. Which one among the following is the correct pathway for the elimination of urine?

- (a) Kidneys, Ureters, Bladder, Urethra.  
(b) Kidneys, Urethra, Bladder, Ureters.  
(c) Urethra, Ureters, Bladder, Kidneys.  
(d) Bladder, Ureters, Kidneys, Urethra.

**Ans. : (a)** 1. Kidneys are bean-shaped structures located on either side of the Back Bone and are protected by the ribs and muscles of back.

2. The urethra, a pair of skinny muscular tubes, emerges from each kidney renal pelvis.

3. Kidney to the bladder, it transports urine.

4. Urine is kept in a muscular sac-like structure called the urinary bladder.

5. Micturition or the act of urinating is the process by which the urinary bladder is emptied.

6. Urethra carries urine from the urinary bladder and helps to expel urine from the body.

Hence the correct sequence is kidney - ureters - urinary bladder - Urethra.

14. Which of the following parts are found in both plant and animal cells?

- (a) Cell membrane, Chloroplast, Vacuole.  
(b) Cell wall, Nucleus, Vacuole.  
(c) Cell membrane, cytoplasm, Nucleus.  
(d) Cell wall, Chloroplast, Cytoplasm.



**Ans. : (c)** The plant and animal cells are eukaryotic and contain well developed cellular organelles. The cell membrane cytoplasm, Chromosomes, and mitochondria are the sinecures that are present in the both the plant and the animals cells.

**15. Which of the following statements is/are correct?**

1. Coronary artery supplies blood to heart muscles.
2. Pulmonary vein supplies blood to lungs.
3. Hepatic artery supplies blood to kidneys.
4. Renal vein supplies blood to kidneys.

**Select the correct answer using the code given below:**

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

**Ans. : (b)** The coronary arteries are responsible for supplying oxygenated blood to the muscles of the heart This statement is correct.

The pulmonary veins carry oxygenated blood from the lungs back to the heart. (This statement is correct.)

The Hepatic artery actually supplies blood the liver not the kidney. This statement is incorrect.

The renal vein comes deoxygenated blood from the kidneys back to the heart. This statement is incorrect.

**16. Which of the following was the theme of World Environment Day 2014?**

- (a) Green Economy, Does it include you.  
(b) Think, Eat, Save.  
(c) Many Species, One Planet, One Future.  
(d) Small Islands and Climate Change.

**Ans. : (d)** The theme of world environment day 2014 was "small islands and climate change" This means that the focus of the day was on the impact of climate change specifically on small islands

The world environment day 2024 focuses on lend rest or creation halting desertification and building drought resilience.

**17. Which one of the following types of pesticides is convenient to control stored grain pests?**

- (a) Systemic pesticides    (b) Fumigants  
(c) Contact poisons        (d) Stomach poisons

**Ans. : (b)** Fumigants are the most convenient type of pesticide for controlling stored grains pests Ashley can penetrate and disperse in the storage area. Effectively reaching pests in all stage of their life cycle and controlling them.

**18. Match List I with List II and select the correct answer using the code given below the Lists:**

- | (List-I)<br>(Animal) | (List-II)<br>(Phyla) |
|----------------------|----------------------|
| A. Ascaris           | 1. Mammalia          |
| B. Malarial parasite | 2. Arthropoda        |
| C. Housefly          | 3. Nematoda          |
| D. Cow               | 4. Protozoa          |

**Code:**

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

**Ans. : (a)** The correct match list are–

- | (List-I)<br>(Animal) | (List-II)<br>(Phyla) |
|----------------------|----------------------|
| A. Ascaris           | 3. Nematoda          |
| B. Malarial Parasite | 4. Protozoa          |
| C. Housefly          | 2. Arthropoda        |
| D. Cow               | 1. Mammalia          |

**19. Which one among the following pairs is not correctly matched?**

- (a) Sandal wood plant : Partial root parasite  
(b) Cuscuta : Parasite  
(c) Nepenthes : Carnivorous  
(d) Mushrooms : Autotroph

**Ans. : (d)** The sandalwood plant is a partial root parasite. This means that the sandalwood plant obtains some nutrients from another plant by attaching its roots to the host plant. This is a true statement, as sandalwood is indeed a partial roots parasite.

- Cuscuta is a parasite, cuscutea is commonly known as ladder, is a parasitic plant that attaches itself to another plant and derives nutrients from it.
- Nepenthes is carnivorous is also true, as Nepenthes, commonly known as the tropical pitcher plant, lures and captures insects in its pitcher-shaped leaves to obtain nutrients.
- Mushrooms are actually heterotrophy, as they obtain nutrients by decomposing organic matter in their surrounding environment. They do not have chlorophyll and are unable to perform photosynthesis which is a characteristic of autotrophs.

⇒ Therefore, the correct Answer is option (4), as mushrooms are not autotrophs.

**20. Which one among the following cattle breed produces highest amount of milk?**

- (a) Brown Swiss                      (b) Holstein  
(c) Dutch belted                      (d) Blaarkop

**Ans. : (b)** Holstein cattle breed is known for producing the highest amount of milk. This breed has originated from Holland and Germany. Holstein are large and sturdy animals with a high milk yield, making the highly desirable for milk production.

**21. Bagasse, a by-product of sugar manufacturing industry, is used for the production of**

- (a) Glass                                      (b) Paper  
(c) Rubber                                      (d) Cement

**Ans.: (b)** Bagasse, a by-product of sugar manufacturing industry, is primarily used for the production of paper. Bagasse is the fibrous residue left after extracting juice from sagas cane. It is a renewable



22. The main constituent of Gobar gas is

- (a) Ethane (b) Methane  
(c) Propane (d) Acetylene

**Ans. : (b)** Methane is the main constituent of Gobar gas (also known as biogas) it is a colorless and odorless gas that is produced by the decomposition of organic matter. (Such as animal dung or plant waste) in the absence of oxygen methane is a potent greenhouse gas and is commonly used as a source of energy.

23. Which of the following is a good lubricant?

- (a) Diamond powder.  
(b) Graphite powder.  
(c) Molten carbon.  
(d) Alloy of carbon and iron.

**Ans. : (b)** Graphite is used as a lubricant because of its slippery nature. In Graphite there are weak van der Waals forces between the layers of Graphite which make it of slippery nature. Graphite is also used in pencil. Graphite is a good conductor of heat and electricity.

24. In Tritium (T), the number of protons (P) and neutrons (N) respectively are -

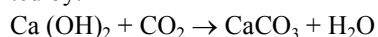
- (a) 1 P and 1 N (b) 1 P and 2 N  
(c) 1 P and 3 N (d) 2 P and 1 N

**Ans. : (b)** Tritium is an isotope of hydrogen, which means it has the same number of protons as hydrogen (1) but a different number of neutrons. Tritium contains two additional neutrons. To summarize, the nucleus of tritium consists of 1 proton and 2 neutrons.

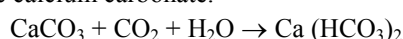
25. When carbon dioxide is passed through lime water, the solution turns milky, but, on prolonged passage, the solution turns clear. This is because

- (a) The calcium carbonate formed initially is converted to soluble calcium bicarbonate on passage of more carbon dioxide.  
(b) The reaction is reversible and lime water is regenerated.  
(c) The calcium bicarbonate formed initially is converted to soluble calcium carbonate on passage of more carbon dioxide.  
(d) The initially formed insoluble compound is soluble in carbonic acid.

**Ans. : (a)** When carbon dioxide ( $\text{CO}_2$ ) is passed through lime water (a solution of calcium hydroxide  $\text{Ca}(\text{OH})_2$ ) a reaction occurs. This reaction can be represented by



This calcium carbonate is initially formed as a precipitate, which makes the solution turn milky, on prolonged passage of carbon dioxide, the milky solution turns clear again. This is because the reaction is reversible. More specifically, the carbon further reacts with the calcium carbonate.



Calcium bicarbonate is soluble in water. The solution turns clear again.

26. The form of carbon known as graphite

- (a) Is harder than diamond.  
(b) Contains a higher percentage of carbon than diamond.  
(c) Is a better electrical conductor than diamond.  
(d) Has equal carbon-to-carbon distances in all directions.

**Ans. : (c)** Graphite has  $\text{sp}^2$  hybridization of carbon and has a free electron which makes more conjugation. Diamond has  $\text{sp}^3$  hybridization of carbon and Carbon has no free electrons. Hence, lesser conjugation. This makes graphite thermodynamically more stable as compared to diamond. Diamond is a poor conductor of electricity but it is a good conductor of heat. While graphite is a good conductor of heat and electricity.

27. Which one among the following is an example of chemical change?

- (a) The melting of an ice cube.  
(b) The boiling of gasoline.  
(c) The frying of an egg.  
(d) Attraction of an iron nail to a magnet.

**Ans. : (c)** The frying of an egg is an example of a chemical change. When an egg is fried the heat causes the proteins in the egg to be fried. The heat causes the proteins in the egg to denature. Leading to the formation of new compounds. The chemical composition of the egg changes as the proteins react to the heat. Resulting in a cooked egg with different properties than a raw egg.

28. Which of the following is not correct about Baking Soda?

- (a) It is used in soda-acid fire extinguisher.  
(b) It is added for faster cooking.  
(c) It is a corrosive base.  
(d) It neutralizes excess acid in the stomach.

**Ans. : (c)** Baking soda, also known as sodium bicarbonate ( $\text{NaHCO}_3$ ) it is commonly used in soda acid fire extinguisher.

When baking soda reacts with acid, it releases carbon dioxide, which helps to smother the fire.

• It is added for faster cooking. (This is not correct). Baking soda is sometimes used in cooking to help batter rise and create a lighter texture in baked goods. However, it is not added for faster cooking. Baking soda helps in the leavening process by releasing carbon dioxide gas when it reacts with an acid. But it does not speed up the cooking time.

• Baking soda is an alkaline substance, which means it is a base. However, it is not considered a corrosive base.

• It neutralizes excess acid in the stomach. Baking soda can be used as an anti acid to neutralize excess stomach acid. It is commonly used to provide temporary relief from heart burn and indigestion.

29. Chromium oxide in paints makes the colour of paint

- (a) Green (b) White  
(c) Red (d) Blue

**Ans. : (a)** Chromium oxide gives a green colour to the paint. Pigments are responsible for imparting colour to the paint.





30. Which of the following are the most important reason/reasons of flood becoming a destructive natural hazard in the Ganga-Brahmaputra valley?

1. Due to population pressure more and more people are living in flood prone areas.
2. Increased frequency and magnitude of landslide and soil erosion in the upper catchments.
3. Increase in the amount and intensity of rainfall in the north-western part of India.

Select the correct answer using the code given below:

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

**Ans. : (b)** Floods in the Ganga-Brahmaputra valley are often caused by heavy rainfall another subsequent overflow of rivers. It over, the increased frequency and magnitude of landslides and soil erosion in the upper catchments contribute to the volume of water that reaches he rivers exacerbating the flooding.

- As population increases, more people tend settle in area that are prone to floods. This increases the risk and potential damage caused by floods.
- Increases in the amount and in intensity of rainfall in the north western part of Indian. This statement is not directly related to the Ganga-Brahmaputra Valley.
- So the statement (1) and (2) are true.

31. Arrange the following states of India on the basis of conferring statehood (starting from the earliest)

1. Arunachal Pradesh
2. Nagaland
3. Sikkim
4. Meghalaya

Select the correct answer using the code given below:

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

**Ans. : (a)** According to this option, the sequence of conferring statehood would be Nagaland – (1963), Meghalaya (1972), Sikkim (1975) – Arunachal Pradesh (1987). Hence, correct sequence is 2-4-3-1

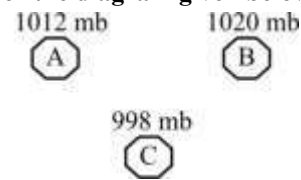
32. Plate tectonics is a scientific theory that describes the large scale motions of Earth's lithosphere. Which one among the following statements regarding Plate tectonics is not correct?

- (a) Tectonic plates are composed of Oceanic lithosphere and thicker Continental lithosphere.
- (b) Tectonic plates are able to move because the Earth's lithosphere has a higher strength than the underlying asthenosphere.
- (c) The Earth's lithosphere is broken up into Tectonic Plates.
- (d) Along divergent plate boundaries, subduction carries plates into the mantle.

**Ans. : (d)** This statement is correct. Tectonic plates are indeed composed of both oceanic lithosphere and continental lithosphere (which is thicker and less dense). This is because the Earth's lithosphere is comprised of both oceanic and continental crust.

- This statement is also correct. The tectonic plate are able to move because the Earth's lithosphere is stronger and more rigid compared to the underlying asthenosphere, which is partially molten and less rigid. The strength of the lithosphere allows for the movement of tectonic plate.
- This statement is correct the Earth's lithosphere is indeed broken up into tectonic plates. These plates are like puzzle pieces that fit together to cover the Earth's surface.
- This statement is not correct. Along divergent plate boundaries, it is not subduction that came plates into the mantle. Instead, it is the process of seafloor spreading that occurs at divergent boundaries. Here two plates move apart, and new lithosphere is created as magma rises and solidifies to form new crust.

33. Consider the diagram given below:



The above diagram represents the pressure conditions of three different places, viz, A, B and C. Which of the following is the correct direction of movement of winds?

- (a) Blow from B towards A and C
- (b) Blow from C towards A and B
- (c) Blow from B to A and from A to C
- (d) Blow from B to C and C to B

**Ans. : (a)** Winds move from high pressure to low pressure. Point (B) has highest and point C has the lowest pressure. Naturally wind would blow from point B to Point A and then to point C.

34. Consider the following statements regarding ground water in India:

1. The large scale exploitation of ground water is done with the help of tube-wells.
2. The demand for ground water started increasing with the advent of green revolution.
3. The total replenish able ground water reserves is highest in the hilly tracts of Sikkim, Nagaland and Tripura.

Which of the statements given above is/are correct?

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



**Ans. : (a)** The large-scale exploitation of groundwater is done with the help of tube wells. This statement is correct because tube wells are commonly used to extract water from underground sources.

- The demand for groundwater started increasing with the advent of the green revolution, which happened during the 1960 and 1970. Led to significant increases in agricultural production through the introduction of high-yield crop varieties, modern farming techniques, and the increased use of irrigation. This in turn led to a higher demand for groundwater for irrigation purpose.

- The total replenish-able ground-water reserves are highest in the hilly tracts of Sikkim, Nagaland and Tripura. This statement is not correct.

- Hence, statement (1) and (2) are correct.

**35. Union Government in June 2014 granted Navaratna status to**

1. Engineers India Ltd
2. Coal India Ltd
3. India Trade Promotion Organization
4. National Buildings Construction Corporation

**Select the correct answer using the code given below:**

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

**Ans. : (c)** The correct answer is (c) option (1) and (4) only. In June 2014, the union Government granted navaratna status of two companies. Engineers India Ltd. and national building construction corporation Limited.

**36. MONEX is associated with**

- (a) Montreal experiment
- (b) Monetary experiment
- (c) Lunar experiment
- (d) Monsoon experiment

**Ans. : (d)** MONEX stands for monsoon experiment, which is a scientific research project focused on studying and understanding the monsoon climate system. The experiment aims together data and observation related to the monsoon in order to improve the understanding and predication of monsoon patterns and their impact on weather and climate.

**37. Which one of the following would have happened if the Himalayas did not exist?**

- (a) Monsoon rains would have taken place in winter months.
- (b) Coastal India would have experienced Mediterranean climate.
- (c) North Indian plain would have been much cooler in winter.
- (d) North western part of India would have experienced humid condition.

**Ans. : (c)** If the Himalayas did not exist, it likely that the north Indian plain would have been much cooler in winter the Himalayas act a barrier, preventing cold winds for entering the plains and (reading a buffer against extreme cold temperature.)

**38. Match List I with List II and select the correct answer using the code given below the Lists:**

(List-I) (Phenomenon)	(List-II) (Date)
--------------------------	---------------------

- |                     |                   |
|---------------------|-------------------|
| A. Summer solstice  | 1. 21st June      |
| B. Winter solstice  | 2. 22nd December  |
| C. Vernal Equinox   | 3. 23rd September |
| D. Autumnal Equinox | 4. 21st March     |

**Code:**

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

**Ans. : (b)** The correct match list are-

List-I (Phenomenon)	List-II (Date)
------------------------	-------------------

- |                     |                                  |
|---------------------|----------------------------------|
| A. Summer solstice- | (1) 21 <sup>st</sup> June        |
| B. Winter solstice  | - (2) 22 <sup>nd</sup> December  |
| C. Vernal Equinox   | - (4) 21 <sup>st</sup> March     |
| D. Autumnal Equinox | - (3) 23 <sup>rd</sup> September |

**39. Which of the following statements regarding jhum cultivation in India are correct?**

1. It is largely practised in North-Eastern Indian states.
2. It is referred to as 'slash and burn' technique.
3. In it, the fertility of soil is exhausted in a few years.

**Select the correct answer using the code given below:**

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

**Ans. : (d)** The correct answer is option (4), which states that all the given statements are correct.

1. Jhum cultivation is largely practiced in North-Eastern Indian states. Jhum cultivation, also known as shifting cultivation, is commonly practiced in states like Nagaland Manipur, Meghalaya, Mizoram and Assam.

2. Jhum cultivation is referred to as the 'slash and burn' technique. Jhum cultivation involves cutting down vegetation and burning it to clear the land for cultivation.

3. Jhum cultivation, the fertility of the soil is exhausted in a few years. Due to the continuous practice of clearing and burning land, the soil fertility decline over time. Leading to the need for shifting to new areas for cultivation.

**40. Arrange the following features formed by rivers in its course starting from upstream:**

1. Meanders
2. Falls
3. Delta
4. Oxbow Lake

**Select the correct answer using the code given below:**

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

**Ans. : (b)** The rivers in its course starting from upstream-Falls are possible only when a river is losing height suddenly. Next comes meanders when a river reaches.



41. Which of the following statements relating to Indian agriculture is/are correct?

1. India has the World's largest cropped area.
2. Cropping pattern is dominated by cereal crop.
3. The average size of an Indian farm holding is too small for several agricultural operations.

Select the correct answer using the code given below:

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

**Ans. : (c)** 1. India has the world's largest cropped area. This means that India has the most amount of land used for cultivating crops in the world. This statement is correct.

2. The cropping pattern in India is dominated by cereal crops this means that a large proportion of the crops grown in India are cereal crop such as rice, wheat and maize this statement is also correct.

42. Collision-Coalescence process of precipitation is applicable to

- (a) Clouds which extend beyond freezing level.
- (b) Those clouds, which do not extend beyond the freezing level.
- (c) All types of clouds.
- (d) Cumulonimbus cloud.

**Ans. : (b)** The Collision-Coalescence process is an important mechanism information of raindrops in warmer clouds or we can say whose temperature do not extend beyond the freezing level. This phenomenon cannot occur in cirrocumulus clouds because they are made up of ice crystals and super cooled water.

43. Arrange the following tiger reserves of India from North to South:

1. Indravati
2. Dudhwa
3. Bandipur
4. Similipal

Select the correct answer using the code given below:

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

**Ans. : (c)** The correct arrangement from North to South is as follows.

Dudhwa - Uttar Pradesh

Similipal - Odisha

Indravati - Chhattisgarh

44. Which of the following is/are basically meant to be deployed in the northern borders of India for monitoring the borders and also to stop smuggling and illegal immigration?

1. Assam Rifles.
2. Border Security Force.
3. Indo Tibet Border Police.
4. National Security Guards.

Select the correct answer using the code given below:

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

**Ans : (c)** Indo Tibet Border police (ITBP). The ITBP is a specialized border guarding force deployed along the Indo-Tibetan border, including the northern borders of India. Their main role is to maintain border security, prevent unauthorized entry, and counter any threats from across the border. They are also involved in various other duties, such as disaster management and national security.

45. Which of the following is/are the potential threat to safety of large dams?

1. Urbanisation near dam sites.
2. Flash floods in catchment area.
3. Seismic activities in surrounding area.

Select the correct answer using the code given below:

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

**Ans. : (c)** Flash floods in the catchment area are a potential threat. This is correct because flash floods can cause a sudden surge of water that can exceed the capacity of a dam, leading to potential damage and failure. Seismic activities, such as earthquakes, can result in ground shaking and potential structural damage to the dam.

46. The Equatorial region has no other season except summer. What could be the reason?

1. The length of day and night is more or less equal over the year.
2. The Earth's rotational velocity is maximum at the Equator.
3. The coriolis force is zero at the Equator.

Select the correct answer using the code given below:

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

**Ans. : (a)** The length of day and night is more or less equal over the year. This option is correct because the equatorial region, which lies near the Earth's equator experience a consistent length of day and night throughout the year. This lack of variation in daylight hours results in a constant warm climate, giving. The appearance of summer year-round.

• The earth's rotational velocity is maximum at the Equator. Although this statement is true, it does not explain why the equatorial region only experiences summer. The rotational velocity affects the coriolis force and the formation of winds and ocean currents, rather than the presence of seasons.

47. Match List I with List II and select the correct answer using the code given below the Lists:

List-I

(Hill range of map)

Central India)

- A. Satpura  
B. Mahadeo  
C. Vindhya  
D. Maikala

Code:

List-II

(Location in





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

**Ans. : (d)**

A. (Satpura)	-	2
B. (Mahadeo)	-	3
C. (Vindhya)	-	1
D. (Maikala)	-	4

**48. Consider the following statements relating to the Non-Alignment Movement:**

1. The Non-Aligned Movement (NAM) was created and founded during the collapse of the colonial system and the independence struggles of the peoples of Africa, Asia, Latin America and other regions of the world and at the height of the Cold War.
2. The First Summit of the Movement of Non-Aligned Countries was convened by the leaders of India, Indonesia, Egypt, Syria and Yugoslavia at Belgrade on September 1– 6, 1961.
3. During the early days of the Movement, its actions were a key factor in the decolonization process, which led later to the attainment of freedom by many countries and to the founding of several new sovereign States.
4. The fundamental principle of the movement is to maintain equal distance from both the super powers by joining the military alliances of both the blocs.

**Which of the statements given above are correct?**

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

**Ans. : (a)** The correct answer is option, 1, 2, and (3).

1. Non-Aligned movement (NAM) was indeed created during the collapse of the colonial system and the struggles for independence in various parts of the world. It emerged during the cold war era when countries wanted to maintain their neutrality and independence.
2. The first summit of the non-aligned movement was convened by the leader of India, Indonesia, Egypt, Syria and Yugoslavia in Belgrade in September 1961. This summit played a crucial role in establishing the principles and objectives of the movement.
3. Non-Aligned movement actively supported the decolonization process and contributes to the freedom and independence of many countries its actions played a significant role in the establishment of new sovereign states.

**49. Consider the following statements relating to the World Bank :**

1. The World Bank was established in 1946, which is headquartered in New York.
2. The World Bank Group has set for itself the goal to end extreme poverty from the World by 2030.
3. The World Bank is a vital source of financial and technical assistance to developing countries around the world. It is not a bank in the ordinary sense but a unique partnership to reduce poverty and support development.

4. The World Bank Group comprises five institutions managed by their member countries in order to promote shared prosperity by fostering the income growth of the bottom 40% for every country.

**Which of the statements given above are correct ?**

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

**Ans : (b)** 1. The world bank came into formal existence on 27 December 1945 following international ratification of the Bretton woods agreements. The group's head quarters are in Washington D.C. It was created in 1944 to help Europe rebuild after world war II. Its mission is defined by two goals-to and extreme poverty by 2030 and to boost prosperity among the poorest 40 percent in low- and middle income countries. The world bank comprises of five institutions.

1. International bank for reconstruction and development (IBRD).
2. The international development association (IDA)
3. The international finance corporation (IFC)
4. The multilateral investment Guarantee agency (MIGA)
5. International centre settlement of investment disputes. (ICSID).

**50. Which of the following statements about International Monetary Fund (IMF) are correct?**

1. The IMF is a United Nations specialized agency.
2. The IMF was founded at the Bretton Woods Conference in 1944 to secure international monetary cooperation.
3. The objective of the IMF is to stabilize currency exchange rates, and to expand international liquidity (access to hard currencies).

**Select the correct answer using the code given below :**

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

**Ans : (a)** The International Monetary Fund (IMF) is an international organization created for the purpose of standardizing global financial relations and exchange rates. Image result for the (IMF) is a united nation specialized agency international monetary fund (IMF) is part of the united nations system and has a formal relationship agreement with the UN but retains its independence. The (IMF) generally monitors the global economy and its core goal is to economically strengthen its member countries specially the (IMF) was created with the intention of.

1. Promoting global monetary and exchange stability.
2. Facilitating the expansion and balanced growth of international trade.
3. Assisting in the establishment of a multilateral system of payments for current transactions.
4. It was formed in 1944 at the Bretton woods conference china Yuan was recently included in the SDR basket of (IMF).



**51. Consider the following statements relating to the World Trade Organization (WTO):**

1. The WTO deals with the global rules of trade between nations.
2. The goal of the WTO is to help producers of goods and services, exporters, and importers conduct their business.
3. The WTO, which is a successor body of the General Agreement on Tariffs and Trade, came into being following the Uruguay Round of Negotiations.
4. The WTO distances itself in framing of rules on trade in intellectual property rights.

**Which of the statements given above are correct?**

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

**Ans : (a)** WTO is an international organization that deals with the global rules of trade between nations it provides a framework for negotiations and the implementation of Trade agreements.

• The goal of the WTO is to facilitate international trade and help producers of goods and services exporters and importers conduct their business. It promotes free trade and aims to reduce barriers to trade.

• WTO was established as a successor to the general agreement on tariffs and trade (GATT) after the Uruguay Round of negotiations the GATT was a multilateral agreement governing international trade from 1948 to 1995.

• WTO does play a role in framing rules on trade in intellectual property rights. The WTO agreement on trade Related aspects of intellectual property rights sets minimum standard for the protection and enforcement of intellectual property rights.

Therefore, given option (1) is true, statement 1, 2, and 3 are rights and statement (4) is false.

**52. Consider the following statements about local government in India:**

1. Article 40 of Indian Constitution provides for the State to organize village panchayats and endow them with such powers and authority as may be necessary to make them function as units of self-government.
2. The 73rd and 74th Constitution Amendments inserted Part IX and IX A in the Constitution.
3. The provisions in Parts IX and IX A of Indian Constitution are more or less parallel and analogous.
4. The 73rd Constitution Amendment is applicable to all states irrespective of size of population.

**Which of the statements given above are correct?**

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

**Ans : (b)** Statement (1), (2), (3) are correct and statement (4) is wrong.

1. Article 40 of the Indian constitution provides for the state to organize village Panchayats and empower them with the necessary power and authority to function as self governing units. This statement is correct. Article 40 Indeed directs the state to take step to organize village Panchayats and endow them with self-government.

2. 73<sup>rd</sup> and 74<sup>th</sup> constitution Amendments inserted part IX and IXA in the constitutions.

3. The provisions in parts IX and IXA of Indian constitution are more or less parallel and analogous. Both parts share similarities as they aim to provide for local self governance in rural and urban areas respectively.

4. The 73<sup>rd</sup> constitutional amendment is applicable to all states, irrespective of population size.

This statement is incorrect. The amendment is applicable to all states. But it differs in its provisions based on population size it provides for a three-tier panchayat system for states with a population above a certain threshold.

**53. Which of the following is not correct regarding the 2014 FIFA Football World Cup?**

- (a) 'We Are One' is the official song.  
(b) 'Dar um Jeito (We Will Find A Way)' is the official anthem.  
(c) Brazil is the first country to host a World Cup for the second time.  
(d) For the first time two consecutive World Cups are not hosted in Europe.

**Ans. : (c)** 'We Are one' is the official song of FIFA Football world cup 2014. The FIFA world cup (20<sup>th</sup> edition) was hosted by Brazil between 12 June 2014 to 13 July 2014. Brazil hosted this competition for the second time after (1950). Germany defeated Argentina 1-0 in the final of the world cup. Only Mexico, Italy, France, Germany (West Germany until shortly after the 1990 world cup) and Brazil have hosted the event on two occasions.

**54. World Bank in June 2014 released a study report on India's Power Sector titled 'More Power to India: The Challenge of Electricity Distribution'. Which of the following is/are the key recommendation(s) of the report?**

1. Ensure regulatory autonomy, effectiveness and accountability for utilities and regulators.
2. Insulate utilities from State Governments to prevent interference with internal operations.
3. Scrap the Electricity Act 2003 in order to improve the revenue generation of the power distribution companies.

**Selection the correct answer using the code given below :**

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





**Ans. : (b)** The key recommendations of the world banks study report on India's power sector titled 'More power to India. The challenge of electricity distribution' are as follows –

1. Ensure regulatory autonomy, effectiveness, and accountability for utilities and regulators to have Independence in decision making and operations. It also highlights the importance of holding them accountable for their actions.
2. Insulate utilities from state governments to prevent interference with internal operations. This recommendation suggests that utilities showed be shielded from interference by state governments by doing so, the report aims to create a conducive environment for utilities to function efficiently, without external influences affecting their operations.
3. Which is to scrap the electricity Act 2003 to improve revenue generation of the power distribution companies is also non-aligned in the report.

**55. Which of the following is/are departments in Ministry of Defense?**

1. Department of Defense.
2. Department of Defense Research and Development.
3. Department of Defense Production.
4. Department of Defense Finance.

**Select the correct answer using the code given below :**

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

**Ans : (b)** Statement (1), (2) and (3) are correct.

The main function of the ministry of defense is to obtain and implement the policy direction of the government on all defense and security related matters. The department of defense is responsible for the defense of India and every part there of including defense policy.

Ministry	Department
Ministry of defense	1. Department of defense
	2. Department of defense production
	3. Department of defense Research and development.
	4. Department Of Ex-servicemen welfare

**56. Consider the following statements about State Election Commission :**

1. The State Election Commissioner shall be appointed by the Governor of the State.
2. The State Election Commission shall have the power of even preparing the electoral rolls besides the power of superintendence, direction and control of election to the panchayats.
3. The State Election Commissioner cannot be removed in any manner from his office until he demits himself or completes his tenure.

**Which of the following is/are correct?**

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

**Ans : (b)** The state election commissioner is appointed by the governor of the state. This statement is generally correct. The state election commissioner is appointed by the Governor or president (in the case of Union Territories) after consultation with the state government.

2. The State Election Commission has the power to preparing electoral rolls and has control over elections to the panchayats.

**57. Which of the following is/are Paramilitary Force(s) of India?**

1. Indian Coast Guard
2. Assam Rifles
3. Directorate General of Resettlement

**Select the correct answer using the code given below :**

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

**Ans : (c)** Assam Rifles is a Para-military force of India. Para-military forces are armed forces that are not part of the regular military but have similar responsibilities and functions. The Indian coast Guard is considered a civilian paramilitary force as it operates under the ministry of defense but has law enforcement jurisdiction over the territorial waters of India. Similarly, the Directorate General of Resettlement is not a Para-military force but is an organization under the ministry.

**58. 'Garuda-V', concluded recently, is a joint exercise between the Air Forces of India and**

- (a) Japan (b) Canada  
(c) Russia (d) France

**Ans : (d)** Garuda-V is a joint exercise between the Air force of India and France. This exercise was recently concluded, which means it has just finished. Joint exercises like Garuda-V are conducted to enhance co-operation, co-ordination and interoperability between the participating countries, in this exercise, the Air-force of India and France would have grained together, exchanging knowledge and tactics, and conducting venous drills and simulations.

**59. Which of the following statements about Indian Judiciary is not correct?**

- (a) The Constitution of India has not provided for double system of courts as in the United States.
- (b) The organization of the subordinate judiciary in India varies slightly from State to State.
- (c) Every State in India has separate High Court.
- (d) The Supreme Court has issued direction to constitute an All India Judicial Service to bring about uniformity in designation of officers in criminal and civil side.

**Ans : (c)** The constitution of India does not provide for a double system of courts, as seen in the united states. This means that India does not have separate federal and state courts like the U.S. this statement is correct.

2. The organization of the subordinate Judiciary in India varies slightly from state to state. This means that the structure and functioning of the lower courts indifferent Election commission is responsible for preparing electrols rolls and conducting elections for local bodies, including panchayats.



3. The state Election commissioner enjoys and security of tenure and cannot be removed from office except in case of proven misbehavior or incapacity. Therefore, the statement (1) and (2) correct and (3) is incurred.

**60. Which among the following about the Rangarajan Panel Report on poverty estimation (submitted in July, 2014) is/are correct?**

1. The report states that three out of ten people in India are poor.
2. The report endorsed the Tendulkar committee suggestion on determining poverty line in India.

**Select the correct answer using the code given below:**

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

**Ans : (a)** The Rangarajan panel report on poverty estimation, submitted in July 2014. Those state that three out of ten people in Indian are poor. The Rangarajan panel report actually recommended a new methodology for calculating the poverty line.

**61. In May 2014, an agreement for credit of US \$ 24 million (equivalent) from World Bank for additional financing for Uttarakhand Rural Water Supply and Sanitation Project was signed. The objective/objectives of the agreement was/were**

1. To improve the effectiveness of rural water supply and sanitation (RWSS) services through decentralization.
2. To restore services of damaged schemes in the disaster affected areas in the State of Uttarakhand.

**Select the correct answer using the code given below :**

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

**Ans : (c)** The correct answer is option (c) both (1) and (2) the objective of the agreement for credit of US 24 million from the World bank for the Utrakhand rural water supply and sanitation project includes two main goals.

• The objective is to improve the effectiveness of rural water supply and sanitation service through decentralization. This means that efforts will be made to make the provision of water supply and sanitation infrastructure that was damaged during a disaster.

**62. Which of the following statements about India-Sri Lanka relations is/are correct?**

1. India and Sri Lanka have a Free Trade Agreement.
2. India has emerged as the highest exporter to Sri Lanka as on May 2014.

**Select the correct answer using the code given below :**

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

**Ans : (c)** India and Sri Lanka have a free trade agreement this means that the two countries have an agreement in place that allows for the free trade of goods between them, with reduced or eliminate tariffs and Trade barriers. This agreement promotes trade and economic cooperation between the two countries.

India has emerged as the highest exporter to Sri Lanka as of may 2014. This means that India is the country that exports the most goods to Sri Lanka compared to any other country. This indicates a strong economic relationship between the two countries and highlights the importance of trade between them.

Therefore, both statements are correct and indicate the positive and strong bilateral relationship between India and Sri Lanka in terms of trade and economic co-operations.

**63. Which among the following is/are correct statement about Malawi?**

1. Malawi is a landlocked country in southeast Africa that was formerly known as Nyasaland.
2. It has presidential system with unitary form of government.
3. Malawi's economy is highly dependent on agriculture and majority of the population is rural.

**Selection the correct answer using the code given below :**

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

**Ans : (c)** Malawi is a landlocked country in southeast Africa that was formerly known as Nayasaland. This statement is correct. Malawi is Indeed a landlocked country in southeastern Africa. It is bordered by Zambia to the northwest, Tanzania to the northeast and east, and Mozambique to the east, south, and west Malawi was known as Nyasaland before gaining independence in 1964.

• Malawi has a presidential system with a unitary form of government. This statement is correct. Malawi has a presidential system, meaning that the president is both the head of state and the head of government. This country also has a unitary form of government. Where power is concentrated at the central level rather than being divided between multiple levels of government.

• Malawai's economy is highly dependent on agriculture and the majority of the population of the population is rural. This statement is also correct. Agriculture plays a crucial role in Malawi economy accounting for a significant portion of the country GDP and employing a large portion of the population additionally the majority of the population is Malawi resides in rural areas. Whose agricultural is the primary source of livelihood. Therefore all statement are correct. (1, 2, and 3.)

**64. Consider the following statements about FIFA:**

1. It is an association governed by Swiss law, founded in 1904 and based in Zurich.
2. FIFA has been engaging with its stakeholders and other institutions to find sensible ways of addressing environmental impacts linked to its activities.



**Selection the correct answer using the code given below :**

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

**Ans : (c)** FIFA is indeed an association governed by Swiss law. It was founded in 1904 and has its headquarters located in Zurich.

• FIFA has been actively engaging with its stakeholders and other institutions to address environmental issues and minimize the negative environmental impacts that are linked to its activities. This includes initiatives such as promoting sustainable stadium construction and implementing responsible waste management practices. Therefore, both statement is correct.

**65. Consider the following statements about SAARC :**

1. The SAARC Secretariat is located at Kathmandu.
2. The Secretariat is headed by the Secretary General, who is appointed by the Council of Ministers from Member States in alphabetical order for a three year term.
3. The Secretary General is assisted by eight Directors on deputation from the Member States.

**Selection the correct answer using the code given below :**

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

**Ans : (c)** The SAARC secretariat is located at Kathmandu. This statement is correct. The SAARC secretariat which serves as the administrative arm of the organization, is indeed located in Kathmandu, Nepal.

• The secretariat is headed by the secretary general, who is appointed by the council of ministers form member states in alphabetical order for a three-year term. This statement is also correct. The secretary general is the chief executive of SAARC and is appointed by the council of minister from the member states. They serve for a term of three years.

• The secretary general is assisted by eight directors on deputation from the member states. This statement is also correct. The secretary general is indeed assisted by eight directors. Who use seconded from the member states to serve at the secretarial. Therefore all option are correct.

**66. Consider the following statements on SAFTA:**

1. SAFTA is a trade liberalisation programme among the South-Eastern countries of Asia.
2. According to SAFTA, the ministerial Council shall meet at least once every year or more often as and when considered necessary by the Contracting States.

**Select the correct answer using the code given below :**

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

**Ans : (b)** SAFTA stands for south Asian Free trade agreement, not south - Eastern. SAFTA is a trade liberalization programme among the countries of south Asia, inducing Afghanistan, Bangladesh, Bhutan, Indian, Maldives Nepal, Pakistan and Sri Lanka.

According to SAFTA, The ministerial council, which consists of the trade ministers of the contracting states. shall meet at least once every years or more often as and when considered necessary by the contracting states. This council is responsible for the overall administration and implementation of SAFTA.

Therefore, only statement (2) is correct.

**67. Consider the following statements on Bay of Bengal Initiative for Multi-sectorial Technical and Economic Cooperation (BIMSTEC) :**

1. BIMSTEC has seven members Bangladesh, Bhutan, India, Myanmar, Nepal, Sri Lanka and Thailand.
2. BIMSTEC provides a link between South Asia and South East Asia by way of economic cooperation and linkages in identified areas of cooperation.
3. BIMSTEC was rechristened as BIMSTEC in the year 2014.

**Selection the correct answer using the code given below :**

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

**Ans : (c)** BIMSTEC does indeed have seven members Bangladesh, Bhutan, India, Myanmar, Nepal Sri-Lanka and Thailand. It is regional organization that to promote economic and technical cooperation among these countries.

• BIMSTEC serves as a link between south Asia and south east Asia through the promotion of economic co-operation and linkages in various identified asses of co-operations. it focuses on sectors such as trade, investment, tourism agricultural, energy and more.

• BIMSTEC has not been rechristened as BIMSTEC in the year 2014 or at any other time. BIMSTEC stands for bay of Bengal initiative for multi-sectorial Technical and Economic co-operation and continues to be known by this name.

**68. Match List-I with List-II and select the correct answer using the code given below the Lists :**

<b>List-I (Training institute)</b>	<b>List-II (Location)</b>
A. National Academy of Direct Taxes	1. Hyderabad
B. Rafi Ahmed Kidwai National Postal Academy	2. Nagpur
C. Sardar Vallabhbhai Patel National Police Academy	3. Dehradun
D. Indira Gandhi National Forest Academy	4. Ghaziabad





Code :

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

**Ans : (a)** The correct match list are-

List-I (Training institute)	List-II (Location)
A. National Academy of Direct Taxes	– Nagpur
B. Rafi Ahmed Kidwai National Postal Academy	– Ghaziabad
C. Sardar Vallabhbhai Patel National Police Academy	– Hyderabad
D. Indira Gandhi National Forest Academy	– Dehradun

**69. The Patola weave was traditionally done in**

- Pochampally and Kanchipuram
- Surat and Patna
- Dacca and Benares
- Benares and Paithan

**Ans : (b)** Patola was manufactured in Surat, Ahmedabad and Patna.

**70. Which of the following about the principles of Panchsheel are correct?**

- There are a set of five principles governing relations between States
- The assumption of Panchsheel was that newly independent States after decolonization would be able to develop a new and more principled approach to international relations
- The first formal codification in treaty form was done in an agreement between China and India

**Selection the correct answer using the code given below :**

- 1 and 2 only
- 2 and 3 only
- 1, 2 and 3
- 1 and 3 only

**Ans : (c)** The principles of panchsheel are a set of five principles governing relation between states. These principles were based on the assumption that newly independent states, after decolonization, would be able to develop a new and more principled approach to international relations. The first formal codification of these principles in treaty form was done in an agreement between china and India so, statement (1), (2) and (3) are correct.

**71. Consider the following statements :**

- Government of India has recently upgraded the National industrial Classification from NIC-1987 to NIC-2008.
- NIC is an essential statistical standard for developing and maintaining comparable database according to economic activities.

**Which of the statements given above is/are correct?**

- 1 only
- 2 only
- Both 1 and 2
- Neither 1 nor 2

**Ans : (c)** Both the statement (1) and (2) are correct.

1. Government of Indian has recently upgraded the national industrial classification from NIC-1987 to MIC-2008. This upgrade reflects changes in the industrial lands cope and helps in capturing and categorizing economic activities accurately for stoical purpose.

**72. V M Dandekar and Neel Kanth Rath Were well-known for their**

- study on the spread of the Green Revolution
- advocacy of nuclear power
- advocacy of liberalization
- study on poverty in India

**Ans : (d)** VM Dandekar and Neel Kanth Rath were well-known for their study on poverty in India. The researchers conducted an influential study that shed light the extent and causes of poverty in the country. Their research provided valuable insights into the demographic and economic factors that contributed to poverty in different regions of India.

**73. Marco Polo's trip to India (1271 AD) earned much fame in Europe on account of**

- his having discovered a safe route to India
- his having established amicable relations with many kings of India
- his account of commercial, religious and social conditions in the East
- All of the above

**Ans : (c)** Option (3) is a correct.

Marco-polo's trip to India (1271-AD) earned much fame in Europe of his account of commercial, religious and social conditions in the East. His book, "The travels of Marco-polo," was widely read contributed to Europeans understanding of the rich and diverse cultures of the Far East.

**74. Consider the following statements about the recently concluded field exercise Sarvada Vijay:**

- It was a joint exercise of Indian Army, Navy and Air Force.
- The overall aim of the exercise was to practice conventional cross-border thrusts into enemy territory.

**Which of the statements given above is/are correct?**

- 1 only
- 2 only
- Both 1 and 2
- Neither 1 nor 2

**Ans : (b)** The overall aim of the exercise was to practice conventional cross-border Thrust into enemy territory This statement is correct. Sarvada Vijay is a field exercise designed to enhance the combat capabilities of the Indian army and to practice offensive military maneuvers, including conventional cross-border thrusts.

**75. Which one among the following is a state-of-the-art acoustic sensor-based target training system developed by the CSIR for shooters of the Indian Army?**

- SHANKH
- DHVANI
- NISHAN
- PRAHAR



**Ans : (b)** DHVANI is a state-of-the art acoustic sensor based target training system developed by the CSIR for shooters of the Indian Army. It uses advanced acoustic sensing technology to provide real-time feedback and analysis for shooters during training exercise this system helps shooters during training exercise this system helps shooters improve their accuracy, precision and target acquisition skills.

**76. Which of the statements given below about the Mughal rule in India is false?**

- (a) Peasant communities were a united and homogeneous group.
- (b) There was an abundance of food grain.
- (c) The State encouraged those crops that brought in more revenue.
- (d) Most regions produced two crops in a year.

**Ans : (a)** Peasant communities were a united and homogeneous group. This statement is false Peasant communities during the Mughal rule in India were not a united and homogeneous group. In fact, there were various social and economic divisions among the peasants. They were organized into different social and economic classes such as Zamindars, tenants and land less laborers. These classes had different levels of wealth and power, and their interests often clashed. Additionally, peasants had different farming practices and produce crops based on their regional climate and geographical locations, So it would not be accurate to say that peasant communities were a united and homogeneous group.

**77. The Ghadar party, formed in the USA, was determined to start a revolt in India. Which among the following provinces did the party choose to begin its armed revolt?**

- (a) Punjab
- (b) Bengal
- (c) United Provinces
- (d) Bihar

**Ans : (a)** It was an Indian revolutionary organization that was formed in the USA in 1913. Their objective was to start a revolt against British rule in India. After the outbreak of world war I, Ghadar party members returned to Punjab to agitate for rebellion for freedom movement. In 1915 they conducted revolutionary activities in central Punjab and organized uprising.

**78. The ruins of the Vijayanagara at Hampi were brought to light in 1800 by**

- (a) Colonel Colin Mackenzie
- (b) Sir John Shore
- (c) Andrew Fraser
- (d) John Marshall

**Ans : (a)** The Vijayanagara empire was established in 1336 by Harihara and his brother Bukka Raya. The empire was destroyed in Battle of Talikota in 1565. The Ruins at Hampi were brought to light in 1800 by an engineer and Antiquarian named Colonel Colin Mackenzie.

**79. Consider the following statements about colonial economy of Vietnam (Indo-China) :**

1. The colonial economy in Vietnam was primarily based on rice cultivation and rubber plantations.
2. All the rubber plantations in Vietnam were owned and controlled by a small Vietnamese elite.
3. Indentured Vietnamese labour was widely used in the rubber plantations.
4. Indentured labourers worked on the basis of contracts that did not specify any rights of labourers but gave immense power to the employers.

**Which of the statements given above is/are correct?**

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

**Ans : (a)** 1. The colonial economy in Vietnam was primarily based on rice cultivation and rubber plantations. This statement is correct as rice cultivation and rubber plantations were the main economic activities in colonial Vietnam. The French colonial authorities promoted these industries to meet the demands of the global market.

3. Indentured Vietnamese labor was widely used in the rubber plantations. This statement is correct as indentured laborers were recruited from Vietnam and other parts of Indochina to work on the rubber plantations. They were often subjected to harsh working conditions and low wages.

4. Indentured laborers worked on the basis of contracts that did not specify and rights of laborers but gave immense power to the employers. This statement is correct as the labor contracts offered little or no protection to laborers, who were vulnerable to exploitation by the plantation owners.

⇒ in conclusion (1), (3) and (4) are correct.

**80. Which of the four linguistic regions in South India remained unaffected by the Non-Cooperation Movement (1921-22)?**

- (a) Kerala
- (b) Tamil Nadu
- (c) Andhra Pradesh
- (d) Karnataka

**Ans : (d)** The non-cooperation movement was a significant phase in the Indian independence movement, led by mahatma Gandhi. It aimed to resist British colonial rule through nonviolent means such as boycotts and protests.

During this movement, south India witnessed widespread participation and support, except for Karnataka. The linguistic regions in south India include Kerala, Tamil Nadu and Andhra Pradesh actively participated in the Noncooperation movement, Karnataka remained largely unaffected.

It is important to note that the provided answer is generally correct, assuming that Non-cooperation movement did not have a significant impact in Karnataka. However, it is essential to consider that historical events can be complex, and there may have been pockets of resistance or participation in Karnataka during this movement.



81. Which of the following statements about the penetration of English into Bengal is/are correct?

1. Job Charnock arrived in Sutanati in August 1690 and laid the foundation of Calcutta which later became the heart of the British Indian Empire.
2. The French East India Company built a fort near the Fort William in Calcutta.

Select the correct answer using the code given below :

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

**Ans : (a)** Job Charnock arrived in Sutanati in August 1690 and laid the foundation of Calcutta which later became the heart of the British Indian Empire. This statement is correct. Job Charnock was an employee of the English East India Company, and his arrival marked the beginning of English settlements and influence in Bengal.

2. The French East India Company built a fort near Fort William in Calcutta. This statement is incorrect. The French East India Company did establish a presence in Bengal but they built their own fort called Fort or Leans and not near Fort William.

82. Under the forceful thrust of British rule, a rapid transformation of the Indian economy took place. In this context, which of the following statements is/are correct?

1. Indian economy was transformed into a colonial economy in the 19th century whose structure was determined by Britain's fast developing industrial economy.
2. The influx of cheap Indian products into England gave a great blow to English textile industries.
3. The 19th century saw the collapse of the traditional Indian village economy and fresh economic alignment along commercial lines.

Select the correct answer using the code given below :

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

**Ans : (a)** Under British rule in 19th century. The Indian economy was transformed into a colonial economy, heavily influenced and structured by Britain's fast developing industrial economy. India became a supplier of raw materials and a market for British manufactured goods. The British introduced railways, canals and telegraph lines, which were aimed at better integrating India into their global trading networks.

2. The influx of cheap Indian products into England did not give a great blow to English textile industries. In fact, British textile industries benefited from India raw material and the Indian market for their products. The British imposed high tariffs on Indian textiles to protect their own industries. This statement is incorrect.

3. The traditional Indian village economy faced significant challenges and underwent collapse in the 19th century due to British policies and the introduction of new commercial systems. The British discouraged Indian industries and handicrafts and promoted cash-crop agriculture instead. This led to a shift from a self-sufficient village economy to a more commercialized economy aligned with British interests.

Statement (1) and (3) are correct.

83. Which of the following statements is/are correct?

1. Early Buddhist literature is generally composed of the canonical text.
2. The Buddhist schools classify their canonical literature as only the Pitakas.

Select the correct answer using the code given below :

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

**Ans : (d)** Early Buddhist literature is generally composed of the canonical text. This statement is incorrect. While it is true that early Buddhist literature includes the canonical text, it is not limited to it. Early Buddhist literature also includes other types of texts such as commentaries, sub-commentaries and Abhidhamma texts. Therefore, the statement is too narrow in its scope.

2. The Buddhist schools classify their canonical literature as only the Pitakas. This statement is incorrect. The Buddhist schools do classify their literature as Pitakas, but Pitakas are not the only classification. The Pitakas consist of three baskets or collections: The Vinaya Pitaka, the Sutta Pitaka and the Abhidhamma Pitaka (Philosophical and psychological analysis). However, there are other texts outside of the Pitakas that are considered canonical in different Buddhist traditions. Therefore, the statement is too restrictive and does not capture the full extent of canonical literature. In conclusion, neither statement (1) nor statement (2) is correct.

84. Manipur clinched the 20th Senior National Women's Football Championships title 2014 by defeating

- (a) Assam  
(b) Odisha  
(c) West Bengal  
(d) Kerala

**Ans : (b)** In the senior national women's football championship held in 2014, Manipur emerged as the winners by defeating Odisha in the final match. Manipur showed excellent skills and tactics, which helped them to clinch the championship title.

**Directions :** The following 07 (Seven) items consist of two statements, Statement I and Statement II. You are to examine these two statements carefully and select the answer to these items using the code given below :





**Code :**

- (a) Both the statements are individually true and Statement II is the correct explanation of Statement I.
- (b) Both the statements are individually true but Statement II is not the correct explanation of Statement I.
- (c) Statement I is true but Statement II is false.
- (d) Statement I is false but Statement II is true.

**85. Statement I :** The twelfth century witnessed the emergence of a new movement in Karnataka led by a Brahmana named Basavanna.

**Statement II :** The Lingayats worshipped Shiva in his manifestation as a Linga.

**Ans : (b)** Both the statement are individually true. but statement II is not the correct explanation of statement (I).

Statement (II) says that the Lingayats worshiped Shiva in his manifestation as a Linga. According to this option the emergence of a new movement in Karnataka led by Basavanna is linked to the lingayats worship of Shiva.

**86. Statement I :** Ram Mohan Roy in his famous work Gift to Monotheism put forward weighty arguments against belief in many Gods and for the worship of a single God.

**Statement II :** Ram Mohan Roy in his Precepts of Jesus tried to separate the moral and philosophic message of the New Testament.

**Ans : (b)** Both the statement are individually true but statement (II) is not the correct explanation of statement (I) statement (I) discusses Ram Mohan Roy's arguments against belief in many gods and for the worship of a single god, while statement (II) discusses his attempt to separate the moral and philosophical message of the new Testaments. These are two separate and independent ideas, and there is no explanatory relationship between them.

**87. Statement I :** The Bethune School, founded in Calcutta in 1849 was the first fruit of the powerful movement for women's education that arose in the 1840s and 1850s.

**Statement II :** The first step in giving modern education to girls was undertaken by Vidyasagar in 1800.

**Ans : (c)** Statement (I) is true but statement (II) is false. statement (I) is true, as it states that the Bethune school was the first result of the movement for women education in the 1840 and 1850, Statement II is false. Vidyasagar did not take the first step in giving modern education to girls in 1800 century. Therefore this option is incorrect.

**88. Statement I :** The annexation of Awadh by Lord Dalhousie in 1856 adversely affected the financial conditions of the sepoys.

**Statement II :** The sepoys had to pay higher taxes on the land where their family members stayed in Awadh.

**Ans : (a)** Both statements are individually true and that statement (II) is the correct explanation of statement (I). The annexation of Awadh by Lord Dalhousie in 1856 adversely affected the financial conditions of the sepoys. This implies that the sepoys faced negative consequences as a result of the annexation. Statement II states that the sepoys had to pay higher taxes on the land where their family members stayed in Awadh. This explanation suggests a specific reason why the financial conditions of the sepoys were affected.

**89. Statement I :** During indigestion, Milk of Magnesia is taken to get rid of pain in the stomach.

**Statement II :** Milk of Magnesia is a base and it neutralizes the excess acid in the stomach.

**Ans : (a)** Both statement are individually true and statement (II) is the correct explanation of statement (I). Milk of magnesia is a base, specially magnesium hydroxide may  $(\text{OH})^2$ . When it ingested, it reacts with the excess stomach acid (Which causes the pain) and neutralizes it by forming magnesium Chloride ( $\text{MgCl}_2$ ) and water ( $\text{H}_2\text{O}$ ). This neutralization process to alleviate the pain and discomfort associated with indigestion.

**90. Statement I :** A tsunami is a series of water waves caused by the displacement of a large volume of water of an Ocean.

**Statement II :** A tsunami can be generated when thrust faults associated with convergent or destructive plate boundaries move abruptly.

**Ans : (a)** Both the statement are individually true and statement II is the correct explanation of statement (I).

**Statement I :** A tsunami is indeed a series of water waves that are caused by the displacement of a large volume of water in the ocean. This displacement can be caused by a variety of water in the ocean. This displacement can be caused by a variety of events such as earthquakes. Volcanic eruptions or under water landslides.

**Statement II :** A tsunami can be generated when thrust faults associated with convergent or destructive plate boundaries move abruptly when these faults move, they can cause a sudden displacement of the ocean floor, which then sets off a series of waves that propagate through the water.

**91. Statement I :** The Atacama is the driest among the deserts of the World.

**Statement II :** The aridity of the Atacama is explained by its location between two mountain chains of sufficient height to prevent moisture advection from either the Pacific or the Atlantic Ocean.



**Ans : (a)** Both the statements are individually true and statement II is the correct explanation of statement (I).

**Statement (I) :** Atacama is the driest among the desert of the world. This is true. As the Atacama Desert in Chile is known for its extremely dry conditions with some areas not receiving any rainfall for hundreds of years.

**Statement (II) :** The aridity of the Atacama is explained by its location between the mountain chains that prevent moisture advection from either the Pacific or the Atlantic oceans. This is also true. The Atacama desert is situated between the Andes mountains to the east and the Chilean coastal Range to the west. These mountain chains block moisture-laden air from reaching the desert, resulting in its arid conditions.

**92. Which one among the following pairs is not correctly matched?**

- |  |                                     |
|--|-------------------------------------|
| (a) When total product increases at an increasing rate | : Marginal product increases        |
| (b) When total product increases at a diminishing rate | : Marginal product declines         |
| (c) When total product reaches its maximum             | : Marginal product becomes zero     |
| (d) When total product begins to decline               | : Marginal product becomes positive |

**Ans : (d)** The statement in option (4) states that when the total product increases, the marginal product begins to decline. This is incorrect. In economics, the concept of product and marginal product is used to understand the relationship between input and outputs. Total product and marginal product are used to understand the relationship between input and outputs. Total product refers to the total quantity of output from a given amount of inputs, while marginal product refers to the additional quantity of output produced when one additional unit of input is added.

**93. The way total output changes due to change in all inputs in same proportion is known as law of**

- Returns to scale
- Diminishing returns
- Increasing returns
- Constant returns

**Ans : (a)** The law being referred to in this question is the law of returns to scale. Returns to scale refers to the relationship between the proportional increases in inputs and the resulting increases in total output. In the context of this question, it states that when all inputs are increased in the same proportion, the total output will also increase in the same proportion. This means that if the inputs are doubled, the output will also double.

Diminishing returns, on the other hand, refers to a situation where increasing the quantity of one input while keeping other inputs constant leads to a proportionate decrease in output. Constant returns, as the term suggests, means that increasing the inputs in the same proportion will result in a proportional increase in output.

**94. Which of the following statements is/are true?**

- If increase in demand and supply are of equal magnitude, the price will remain unchanged, but the equilibrium quantity will increase.
- If increase in demand is of greater magnitude than increase in supply, both equilibrium price and equilibrium quantity will increase.
- If increase in supply is of greater magnitude than increase in demand, equilibrium price will fall but equilibrium quantity will increase.

**Selection the correct answer using the code given below:**

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

**Ans : (d)** 1. If increase in demand and supply are of equal magnitude, the price will remain unchanged. This is because the increases in demand and supply will cancel out each other, resulting in no change in price. However, the equilibrium quantity will increase as both demand and supply increase.

2. If increase in supply, both equilibrium price and equilibrium quantity will increase. This is because the increase in supply creates more pressure on the market, leading to a higher price and quantity at equilibrium.

3. If the increase in supply is of greater magnitude than the increase in demand, the equilibrium price will fall, but the equilibrium quantity will increase. This is because the increase in supply will create a surplus, which in turn puts downward pressure on prices. However, the increase in supply also allows for a greater quantity of goods to be available at equilibrium. Therefore, all statements are correct. Hence **option (d) are correct.**

**95. A market in which there are large numbers of sellers of particular product, but each seller sells somewhat differentiated but close products is termed as**

- Perfect competition
- Monopoly
- Monopolistic competition
- Oligopoly

**Ans : (c)** Monopolistic competition is a form of market in which there are large numbers of sellers of a particular product but each seller sells somewhat differentiated but close products.

**96. The value of all final goods and services produced by the normal residents of a country and their property, whether operating within the domestic territory of the country or outside in a year is termed as**

- Gross National Income
- Net National Income
- Gross Domestic Product
- Net Domestic Product



**Ans : (a)** Gross National Income (GNI).

- GNI is a measure that calculates the total value of all final goods and services produced by the normal residents of a country, regardless of their location (within the domestic territory or outside) in a specific time period. usually a year.
- Net national income (NNI) is the GNI minus depreciation it takes into account the wear and tear of capital goods during production.
- Gross domestic product (GDP) is the total value of all final goods and services produced within the domestic territory of a country in a specific time period. GDP does not induces production by country's residents outside its territory.
- Net domestic product (NDP) is the GDP minus depreciation. it considers the depreciation of capital goods within a country. Therefore option (a) is a correct.

**97. Which of the following statements are correct?**

1. When marginal revenue is positive, total revenue increases with increase in output.
2. When marginal revenue is zero, total revenue is maximum.
3. When marginal revenue becomes negative, total revenue falls with increase in output.

**Select the correct answer using the code given below :**

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

**Ans : (d)** When marginal revenue is positive, total revenues increases with an increases in output. This statement is correct because marginal revenue measures the additional revenue generated from selling one more unit of output when marginal revenue is positive. it means that the revenue from selling an additional unit is greater than the cost of producing that unit. Resulting in an increases in total revenue.

2. When marginal revenue is zero, total revenue is maximum. When marginal revenue is zero, it means that the revenue from selling an additional unit is equal to the cost of producing that unit. At this point, total revenue is not maximum but at its peak. total revenue could continue to increases as long as marginal revenue is positive, even if it is decreasing.

3. When marginal revenue becomes negative, total revenue falls with an increases in output. This statement is correct. When marginal revenue becomes negative, it means that the revenue from selling an additional unit is less than the cost of producing that unit. This leads to deceases in total revenue since the cost of production outweigh the revenue generated. Therefore, all statement are correct. Hence, option (d) is correct.

**98. National product at factor cost is equal to**

- (a) Domestic product + Net factor income from abroad.  
(b) National product at market prices-indirect taxes +subsidies.  
(c) Gross domestic product-depreciation.  
(d) National product at market prices + Indirect taxes +subsidies.

**Ans : (b)** The national product at factor cost is equal to national product at market prices minus Indirect taxes and plus subsidies. National product at market prices refers to the total value of goods and services produced within a country including in direct taxes and subsidies.

**99. Which of the following theories form the basis of international trade?**

1. Absolute cost difference
2. Comparative cost difference
3. Opportunity cost

**Select the correct answer using the code given below :**

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

**Ans : (d) Absolute cost difference :** This theory states that countries will engage in international trade if they can produce a particular good at a lower absolute cost compared to other countries. In other words, if a country has a natural advantage or resources that make it more efficient at producing a certain product, it will specialize in producing that product and export it.

**Comparative cost difference :** This theory expands on the concept of absolute cost difference and focuses on the relative efficiency of producing goods, it states that countries should specialize in producing goods in which they have a comparative advantages, even if they are not the most efficient producers particular good.

3. **Opportunity cost :** Opportunity cost refers to the potential loss of other alternative when choosing to produce or consume a particular good. Countries will engage in international trade, if they can benefit from producing goods with lower opportunity cost.

• These three theories together form the basis of international trade. Therefore, option (d) correct.

**100. Which one among the following is not a source of tax revenue for the Central Government in India?**

- (a) Income tax                                      (b) Customs duties  
(c) Service tax                                      (d) Motor Vehicle tax

**Ans : (d)** Motor Vehicle tax is not a source of tax revenue for the central Government in India. It is type of revenue part of state tax.

**101. Which of the following does not form part of current account of Balance of Payments?**

- (a) Export and import of goods.  
(b) Export and import of services.  
(c) Income receipts and payments.  
(d) Capital receipts and payments.

**Ans : (d)** The current account is a part of the balance of payment (BOP) that records a country's transactions with the rest of the world in goods, services, income and current transfers.

The current account balance shows whether a country is a net creditor or debtor to the rest of world and whether it has a surplus a deficit in its trade and income flows. The four major components of a current accounts are goods, services, income and current transfers. Therefore capital receipts and payments do not form a part of the current account of balance of payments.





102. Novak Djokovic, who won the Men's Wimbledon Tennis Open Tournament 2014, is from
- Serbia
  - Spain
  - Switzerland
  - England

**Ans : (a)** Novak Djokovic, the winner of the men's Wimbledon Tennis open Tournament in 2014, hails from the Serbia. Serbia is a country located in southeast Europe. Novak Djokovic is one of the most successful tennis players in the world and is widely regarded as one of the greatest players of all time. He has achieved numerous accolades throughout his career, including multiple Grand slam titles.

103. The technique of inducing rain from cloud is called
- Cloud computing
  - Cloud control
  - Cloud engineering
  - Cloud seeding

**Ans : (d)** Silver Iodide is used to create artificial rains, it is also known as clouds seeding. Cloud seeding is a form of weather modification, a way of changing the amount or type of precipitating that falls from clouds by dispersing substances into the air that serve as cloud condensation or ice nuclei, which alter the microphysical processes within the cloud. The intent is to increase precipitation rain or snow.

104. Match List-I with List-II and select the correct answer using the code given below the Lists :

(List-I)

(Founder/First Director)

- Vikram Sarabhai
- Homi J Bhabha
- C. N. R. Rao
- P. C. Mahalanobis

(List-II)

(Premier Research Institute)

- Indian Statistical Institute
- Jawaharlal Nehru Centre for Advanced Scientific Research
- Tata Institute of Fundamental Research
- Physical Research Laboratory

Code :

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

**Ans : (a)** The correct match list are-

(List-I)

(Founder/First Director)

- Vikram Sarabhai
- Homi J Bhabha
- C. N. R. Rao
- P. C. Mahalanobis

(List-II)

(Premier Research Institute)

- Physical Research Institute
- Tata Institute of Fundamental Research
- Jawaharlal Nehru Centre for Advanced Scientific Research
- Indian Statistical Institute

105. Which of the following statements about Marrakesh Treaty is/are correct?

- The main goal of the treaty is to create a set of mandatory limitation and exceptions for the benefits of the blind and visually impaired.
- India has ratified the treaty.
- The treaty has come into force from July, 2014.

**Selection the correct answer using the code given below :**

- 1 only
- 1 and 2 only
- 2 only
- 1, 2 and 3

**Ans : (b)** The main goal of the Marrakesh Treaty is to create a set of mandatory limitations and exceptions for the benefits of the blind and visually impaired. This statement is correct as the primary objective of the treaty is to improve access to published works for the blind. Visually impaired and print-disabled individuals.

- India has ratified the treaty the Marrakesh treaty on June 24, 2014 signaling its commitment to the agreement.
- Marrakesh Treaty came into force on September 30, 2016, after it received the required number of ratifications from member countries.

106. Consider the following statements about GAGAN (GPS Aided Geo Augmented Navigation) system :

GAGAN

- It offers free enhanced satellite navigation signals over India which are ten times more precise than GPS.
- It was developed jointly by ISRO and NASA.

**Which of the statements given above is/are correct?**

- 1 only
- 2 only
- Both 1 and 2
- Neither 1 nor 2

**Ans : (a)** GAGAN (GPS Aided Geo Augmented Navigation) is a satellite-based navigation system developed jointly by the Indian space research organization (ISRO) and the airports Authority of India (AAI). it provides highly precise satellite navigation signal over Indian airspace.

107. Andaman and Nicobar Command is

- a Command of the Indian Army.
- a regional Command of the Indian Coast Guard.
- an integrated theater Command operating directly under the Chiefs of Staff Committee.
- a joint Command of the Indian Navy and the Indian Air Force.

**Ans : (c)** The Andaman and Nicobar command (ANC) is a integrated tri-services command of the Indian Armed forces based at port Blair in the Andaman and Nicobar Islands a union territory of India.



108. Arihant is a

- (a) Multi barrel rocket launcher
- (b) Airborne Early Warning and Control System
- (c) Unarmed Combat Aerial Vehicle
- (d) Nuclear-powered ballistic missile submarine

**Ans : (d)** Arihant is a nuclear - powered ballistic missile submarine.

• Indian declared that its nuclear triad is operational after indigenous ballistic missile nuclear submarine INS Arihant conducted its first deterrence patrol. INS Arihant a 6000 tone submarine is the leadership of Indian Arihant mass of nuclear - powered ballistic missile submarines built under the Advanced Technology Vessel (ATV).

109. Which one among the following is not a Command of the Indian Army?

- (a) South-Western Command
- (b) South-Eastern Command
- (c) Army Training Command
- (d) Central Command

**Ans : (b)** The Eastern command is responsible for the defense of the eastern borders. Including the northeastern states and west Bengal. Hence, option (B) is not one of the commands of the Indian army.

110. Master Chief Petty Officer is a rank in the

- (a) Indian Navy
- (b) Military Engineering Service
- (c) The Army Aviation Corps
- (d) Indian Air Force

**Ans : (a)** Master Chief Petty is a rank in the Indian Navy. A master chief petty officer is the most senior enlisted rank in the Navy. They are responsible for providing leadership and guidance to junior enlisted personnel and serving as a liaison between the commanding officers and the enlisted sailors.

111. 'Project Seabird' is connected with

- (a) Greenfield naval base at West Coast of India
- (b) Anti pirate operation at Somalia
- (c) Indian Navy's island development project
- (d) Shipyard in Kutch district, Gujarat

**Ans : (a)** Project seabird was approved in 1995 to pursue the construction of the new naval base at Karwar. Phase I was completed in 2005 and the base was commissioned on 31 may 2005. Once completed, project seabird Karwar in coastal Karnataka will become the country biggest. Naval base by 2025. Project seabird is connected with green field naval base at west of India.

112. Consider the following statements about world's first Modern Slavery Bill, published in June 2014 by the British House of Commons :

1. This is the first of its kind bill in Europe which specifically addresses slavery and trafficking in the 21st century.
2. The Bill fixes the maximum sentence available for the most serious offenders up to 14 years.

Which of the statements given above is/are correct?

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

**Ans : (a)** Modern slavery Bill is the first of its kind in Europe to address slavery and trafficking in the 21 century. This statement is correct. The modern slavery Bill, published by the British House of Commons in June 2014, is indeed the bill in Europe to specifically target modern forms of slavery and human trafficking. It aims to provide better protection and support for victims as well as tougher punishments for offenders.

113. Operation Kachhapa is an NGO initiative for the conservation of

- (a) Hawksbill turtles
- (b) Olive Ridley sea turtles
- (c) Green turtles
- (d) Leatherback turtles

**Ans : (b)** Operation Kachhapa is a cooperative program between central and state authorities, local non-government organization local fishermen and local media to drastically reduce turtle mortality and to safeguard the future of olive Ridley turtles on the Orissa coast.

114. Consider the following statements about 'Project Mausam' :

1. The Project was launched in June 2014 by the Ministry of External Affairs.
2. At the macro level, the project aims to re-connect and re-establish communications between countries of the Indian Ocean world, which would lead to an enhanced understanding of cultural values and concerns; while at the micro level, the focus is on understanding national cultures in their regional maritime milieu.

Which of the statements given above is/are correct?

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

**Ans : (b)** The project Mausam aims to re-connect and re-establish communication between the countries of the Indian ocean and world, which would lead to a better understanding of cultural values and concerns. it focuses on understanding cultures in their regional maritime milieu.

• The project was actually launched by the ministry of culture in June 2014.

115. Which of the following is not the recommendation of the Arvind Mayaram Committee on Rationalizing the FDI/FPI definition (June 2014)?

- (a) Foreign investment of 10 percent or more in a listed company will be traded as foreign direct investment (FDI).
- (b) In a particular company, an investor can hold the investments either under the FPI (Foreign Portfolio Investment) route or under the FDI route, but not both.



- (c) Any investment by way of equity shares, compulsorily convertible preference shares / debentures which is less than 10 per cent of the post issue paid up equity capital of a company shall be treated as FPI.
- (d) On NRI Investors, the Committee recommended treating non-repatriable investment as FDI.

**Ans. : (d)** Foreign investment of 10% or more in a listed company will be treated as foreign direct investment (FDI). This means that any investment that matches this criterion will be classified as FDI.

- An investor can hold investment either under the foreign portfolio investment (FPI) route or under the FDI route but not both. This means that an investor can choose to invest in a company either through FPI or FDI but cannot have investment in the same company through routes simultaneously.
- Any investment by way of equity shares, compulsorily convertible preference share which is less than 10% of the post-issue paid up equity capital of a company shall be treated as FPI. This means that investment that are less than 10% of a company post-issue paid-up equity capital will be categorized as FPI.
- The committee recommended treating non-repayable investment made by non-resident Indians (NRI) that cannot be repaid will be considered as FDI. Hence option (4) is correct.

**116. Consider the following statements about Star Alliance Network :**

1. Established in the year 1997, it is the leading global Airline network with the highest number of member Airlines, daily flights, destinations and countries flown to.
2. Air India has recently joined the Star Alliance in a bid to garner more revenue.

**Which of the statements given above is/are correct?**

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

**Ans : (c)** The star alliance network was indeed established in 1997 and it is currently and most prominent global airline network. It comprises a large number of member Airline and offers a vast network of daily flight distinctions and countries served.

- Air Indian the national carrier of India, Joined the star Alliance network in 2014. The decision to join the alliance was driven by air India goal to increases its revenue through partnership and cooperation with other member airlines.

**117. Which of the following statements is/are correct?**

1. In June 2014, the World Heritage Committee has inscribed the Great Himalayan National Park Conservation Area (GHNPCA) on the World Heritage List on the basis of UNESCO Guidelines.
2. The Great Himalayan National Park (GHNP) is located in Sikkim.

**Selection the correct answer using the code given below:**

- (a) 1 only                      (b) 2 only  
(c) Both 1 and 2              (d) Neither 1 not 2

**Ans. : (a)** The correct answer is option (a). In June 2014, the world Heritage committee inscribed the great Himalayan natural park conservation area on the world Heritage List this inscription was based on the guideline provided by UNESCO.

**118. Baiji oil refinery is located at**

- (a) Iran                              (b) Iraq  
(c) South Sudan                  (d) Russia

**Ans. : (b)** Baiji oil Refinery is located in Iraq and is an important gusset of for the country's oil production and refining industry.

**119. Consider the following statements :**

1. World Vitiligo Day is observed on 25th June every year.
2. Vitiligo is a progressive skin disease.

**Which of the statements given above is/are correct?**

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

**Ans. : (c)** The correct answer to the question is option (c) both (1) and 2.

- World vitiligo day is observed on 25<sup>th</sup> June every year. This day is dedicated to raising awareness about vitiligo, long-term skin condition that causes patches of skin to lose their color.

- Vitiligo is indeed a progressive skin disease. it occurs when the cells that produce melanin, the pigment that gives color to the skin, die or stop functioning.

**120. Stepwell Rani-ki-Vav was approved as a World Heritage Site by the UNESCO recently. It is located at**

- (a) Rajasthan  
(b) Gujarat  
(c) Madhya Pradesh  
(d) Maharashtra

**Ans : (b)** Rani-Ki-Vav, on the banks of the Saraswati River was initially built as a memorial to a king in the 11th century.





# Combined Defence Services (CDS) Exam-2015 (I)

## GENERAL KNOWLEDGE

Explanation with Solved Paper (Exam Date : 15-02-2015)

**Directions :** The following 04 (Four) items consist of two statements, Statement I and Statement II. You are to examine these two statements carefully and select the answers to these items using the code given below :

**Code:**

- (a) Both the statements are individually true and Statement II is the correct explanation of Statement I.
- (b) Both the statements are individually true, but Statement II is not the correct explanation of Statement I.
- (c) Statement I is true, but Statement II is false.
- (d) Statement I is false, but statement II is true.

**1. Statement I :**

India's offshore and deep sea fish catch is very poor considering the marine potential.

**Statement II :**

Indian coast does not have many gulfs, bays, estuaries and backwaters.

**Ans : (a)** India has significant marine potential but the offshore and deep-sea fish catch is not as high if could be factors such as inadequate infrastructure technology and investment contribute to this.

India's coastline spanning over 7,500 km, has a relatively small number of gulf, bays estuaries and back water compared to other countries. This is due to several geological and geographical factor.

Straight coastline, Lack of tectonic activity, River System, monsoon climate, technology and investment. So, the Both Statements are correct and Statement II is the correct explanation of Statement I.

**2. Statement I :**

Tides are the rise and fall of sea levels caused by the combined effects of the gravitational forces exerted by the Moon and the Sun, and the rotation of the Earth.

**Statement II :**

Earth rotates from the West towards the East once in 24 hours with respect to the Sun.

**Ans : (b)** Tide are indeed the rise and fall of Sea levels caused by the combined gravitational forces of the moon and the sun and the rotation of the Earth.

Earth rotates once in about 24 hours with respect to sun. But once every 23 hours, 56 minutes and 4 second with respect to other distant stars. Earth's rotation is slowing slightly with time. Thus a day was shorter in the past this is due to the tidal effects the moon has on Earth's rotation.

So, Both the Statement are correct and Statement II in not the correct explanation of Statement I.

**3. Statement I :-** Sideral day is shorter than Solar day.

**Statement II :-** The motion of the Earth in its orbit around the Sun is termed as revolution.

**Ans : (b)** On Earth a Sidereal day last for 23 hours 56 minutes 4.091 seconds which is slightly shorter than the solar day measured from noon to noon.

At same time that the earth spins on its axis it also orbits or resolves around the sun. This movement is called revolution. So, both the Statement are individually true and Statement II is the correct explanation of Statement I.

**4. Statement I :**

When a gun is fired it recoils, i.e., it pushes back, with much less velocity than the velocity of the bullet.

**Statement II :**

Velocity of the recoiling gun is less because the gun is much heavier than the bullet.

**Ans : (a)** The gun has a higher mass compared to the bullet. It experiences less acceleration resulting in a lower velocity.

According to Newton's second law of motion. The Acceleration of an object is inversely proportional it to its mass. Since the gun has a higher mass compared to the bullet, it experiences less acceleration resulting in lower velocity. So, both the Statement are individually true and Statement II is the correct explanation of Statement I.

**5. In an observation,  $\alpha$ -particles,  $\beta$ - particles and  $\gamma$ -rays have same energies. Their penetrating power in a given medium in increasing order will be**

- (a)  $\alpha$ ,  $\beta$ ,  $\gamma$
- (b)  $\beta$ ,  $\gamma$ ,  $\alpha$
- (c)  $\alpha$ ,  $\gamma$ ,  $\beta$
- (d)  $\beta$ ,  $\alpha$ ,  $\gamma$

**Ans : (a)** The table below shows the characteristic's of radioactive rays ( $\alpha$ rays,  $\beta$  rays,  $\gamma$  rays):

	$\alpha$ rays	$\beta$ rays	$\gamma$ rays
Charge	Positively charge (+ve)	Negatively charge - (ve)	Uncharged
Nature	Each $\alpha$ -particle have 2 unit of +ve charge and 4amu mass. Each $\alpha$ particle is a helium nucleus.	Each $\beta$ -particle has a mass equal to an electron and carries one unit of negative charge. Each $\beta$ -particle is an electron.	$\gamma$ -rays consist of electromagnetic radiations of very short wavelength.



<b>Velocity</b>	one-tenth that of the velocity of light	ranging from 33.99% of the velocity of light.	Velocity of light.
<b>Penetrating power</b>	Least penetrating power	100 times more penetrating than $\alpha$ -rays	Highest penetrating power among the three rays.
<b>Ionizing power</b>	The most heavy of the three so hits more particles on its travels so can't travel as far but ionizes more along its way.	Being smaller than $\alpha$ particles, can travel further but ionize less.	The $\gamma$ particles are highly energetic photons that rarely interact with matter so can travel very far and ionize the least.

So, increasing order  $\alpha < \beta < \gamma$

6. The Earth without rotational movement would result into

1. no sun-rise and sun-set
2. no occurrence of day and night cycle
3. only one season

Select the correct answer using the code given below:

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

**Ans : (b)** **Statement 1:** Without the earth's rotation, there would be no sun rise and sunset. This is because the earth's rotation is what causes the apparent movement of the Sun across the Sky, resulting in the daily cycle of day and night. If the Earth stopped rotating, the sun would appear to be in a fixed position in the sky, and there would be no noticeable change in light levels through the day.

**Statement 2 :** The sun appears to rise in the east and set in the west because of the earth's rotation. Without this rotation, the Sun would always be in the same position in the sky, resulting in a constant state of daylight or darkness.

**Statement 3 -** The Earth's seasons are caused by the tilt of its axis and its revolution around the sun. The Earth's axis is tilted at a  $23.5^\circ$  angle, which means that the Earth always points to one side as it orbits the sun. This tilt causes the amount of sunlight that reaches the Earth to vary throughout the year, which results in the seasons.

7. When hard water is evaporated completely, the white solid remains in the container. It may be due to the presence of

1. Carbonates of Ca and Mg
2. Sulphate of Ca and Mg
3. Chlorides of Ca and Mg

Select the correct answer using the code given below:

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

**Ans. : (b)** When hard water completely evaporates, a white solid is left in the containers this is due to, 1. Carbonates of Ca and Mg, 2. Sulphate of Ca and Mg, 3. Chlorides of Ca and Mg.

8. Which one among the following statements is correct?

- (a) Prokaryotic cells possess nucleus.  
(b) Cell membrane is present both in plant and animal cells  
(c) Mitochondria and chloroplasts are not found in eukaryotic cells  
(d) Ribosome's are present in eukaryotic cells only.

**Ans. : (b)** The cell membrane is a crucial component of both plant and animals cell, serving as a protective barrier. It regulates the passage of substance, maintaining homeostasis and allowing communication between cell and its environment.

9. A person standing 1 m in front of a plane mirror approaches the mirror by 40 cm. The new distance between the person and his image in the plane mirror is

- (a) 60 cm (b) 1.2 m  
(c) 1.4 m (d) 2.0 m

**Ans : (b)** As he is moving towards the mirror then the distance from mirror and object is =  $100 \text{ cm} - 40 \text{ cm} = 60 \text{ cm}$

Distance between image and object is  $(60 + 60) \text{ cm} = 120 \text{ cm}$

$120 \text{ cm change in to meter} = \frac{120}{100} = 1.2 \text{ m}$

10. Match List I with List II and select the correct answer using the code given below the Lists:

**List I**

(Ocean current)

- A. Guinea current  
B. Oyashio current  
C. Canaries current  
D. Kuroshio current

**List-II**

(Location in Map)



**Code:**

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



**Ans : (b)** The Guinea current is a warm ocean current that flows along coast of the West Africa specifically in the Gulf of Guinea. It flow west ward and then south west ward along the coast of West Africa, from Senegal to Angola.

- The Oyashio Current is a cold ocean current that flows along the eastern coast of Japan and the western coast of the Pacific Ocean.
- The Canary Current is a cool ocean current that flow along the northwest coast of Africa, specifically off the Canary Island and the Liberian peninsula.
- The Kuroshio Current is warm ocean current that flows along the eastern coast of Japan and the western coast of the Pacific Ocean.

**11. Which one among the following compounds has same equivalent weight and molecular weight?**

- (a)  $\text{H}_2\text{SO}_4$  (b)  $\text{CaCl}_2$   
(c)  $\text{Na}_2\text{SO}_4$  (d)  $\text{NaCl}$

**Ans : (d)**

Molecular weight of  $\text{NaCl} = 23 + 35.5 = 58.5 \text{ g/mol}$

Equivalent weight =  $\frac{\text{Molecular weight}}{\text{Valency}}$

Hence, Equivalent weight =  $\frac{58.5}{1} = 58.5 \text{ g/mol}$

**12. Which one among the following statements is not true for Mammals?**

- (a) They possess hair on the body  
(b) Some of them lay eggs.  
(c) Their heart is three chambered  
(d) Some are aquatic

**Ans : (c)** Mammals are a group of warm-blooded animals that belongs to the class Mammalian. They are characterized by the presence of hair or fur, Mammary gland, three middle ear bones and four chamber heart in Mammals. Mammal give birth to live young rather than laying egg.

**13. Arrange the following layers of atmosphere vertically from the surface of the Earth:**

1. Mesosphere 2. Troposphere  
3. Stratosphere 4. Thermosphere

Select the correct answer using the code given below :

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

**Ans : (c)** The atmosphere is divided into different layers based on the temperature conditions. These are troposphere, stratosphere, mesosphere, and thermosphere.

**Troposphere**

- It is the lowest layer of the atmosphere.
- It has an average height of up to 18 km.
- This layer consists of dust particles and water vapour.

**Stratosphere**

- It is found above the tropopause and extends up to a height of 50 km.

- An important feature of the stratosphere is that it compares the ozone layer.

**Mesosphere**

- It is located above the stratosphere, which extends up to a height of 80 km.

**Thermosphere**

- It is located from 80 to 400 km above the mesosphere.
- It contains electrically charged particles known as ions. Hence, it is also known as the ionosphere.

**14. A metallic plate sticks firmly on the mouth of a water vessel made from another metal. By way of heating, one can detach the plate from the vessel. This is because heat expands**

- (a) The vessel only  
(b) Both the vessel and the plate equally  
(c) The vessel more than the plate  
(d) The vessel and contracts the plate

**Ans : (c)** When the vessel and the plate are heated. They expand due to the increase in temperature. However different metals have different coefficient of thermal expansion meaning they expand at different rates. Heating causes the vessel more than the plate.

**15. Electricity is produced through dry cell from**

- (a) Chemical energy (b) Thermal energy  
(c) Mechanical energy (d) Nuclear energy

**Ans : (a)** A dry cell is the simplest form of Electricity-producing source. It generates electricity based on chemical reaction.

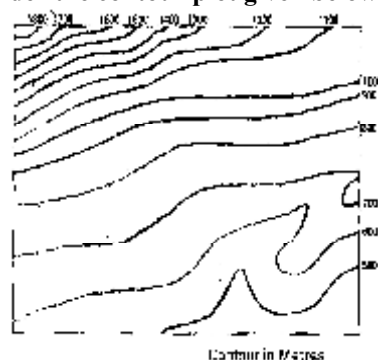
- In the dry cell, the two electrodes are connected through a closed path then which forces the electrons to flow from one end to other.
- The flow of electrons causes the current to flow
- Therefore, In a dry cell, the chemical energy is converted into electric energy.

**16. In human digestive system, the process of digestion starts in**

- (a) Oesophagus (b) Buccal cavity  
(c) Duodenum (d) Stomach

**Ans : (b)** The process of digestion starts in the mouth (Buccal cavity) when you chew. The food is ground up by teeth moistened with saliva so it moves more easily through Oesophagus into stomach saliva break down carbohydrates into sugars.

**17. Consider the contour plot given below:**





The above contours of an area indicate several relief features. Which one among the following relief features is not depicted here?

- (a) Steep slope (b) River valley  
(c) Conical hill (d) Gentle slope

**Ans : (c)** The above contours of an area indicate several relief features-steep, river valley, Gentle Slope. A conical hill is a type of land form that resembles a cone in shape typically with a rounded or pointed top and sloping side. A conical hills can be formed through various geological processes such as-

- (1) Volcanic activity.  
(2) Erosion  
(3) Deposition

18. Which one among the following fuels is used in gas welding?

- (a) LPG (b) Ethylene  
(c) Methane (d) Acetylene

**Ans : (d)** Acetylene is a major fuel gas used in welding and cutting processes.

19. In respect of the difference of the gravitational force from electric and magnetic forces, which one of the following statements is true?

- (a) Gravitational force is stronger than the other two.  
(b) Gravitational force is attractive only, whereas the electric and the magnetic forces are attractive as well as repulsive.  
(c) Gravitational force has a very short range.  
(d) Gravitational force is a long range force, while the other two are short range forces.

**Ans : (b)** Gravitational force is always attractive and acts between any two objects with mass. On the other hand, electric and magnetic force can be either attractive or repulsive. They depend on the charges and currents involved. Like charges repel each other, while poles of magnets repel each other, while opposite poles attract.

20. Which one among the following is a micronutrient present in soil for various crops?

- (a) Calcium (b) Manganese  
(c) Magnesium (d) Potassium

**Ans : (b)** Micronutrients for crops are as follows-Boron, Chlorine, Copper, Iron, Manganese and Zinc etc.

- Manganese (Mn) is one of the micronutrients that is derived from soil and is needed in small amounts. It function with enzyme system involved in breakdown of carbohydrates and nitrogen metabolism.

21. Arrange the following tributaries of river Indus from North to South:

1. Chenab 2. Jhelum  
3. Ravi 4. Sutlej

Select the correct answer using the code given below:

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

**Ans : (d)** The Indus river originates in Tibet in mount Kailash near Lake Mansarovar. It drains into the Arabian Sea. The correct order of tributaries from North to South is Jhelum, Chenab, Ravi, Beas, Sutlej.

22. Match List I with List II and select the correct answer using the code given below the Lists :

List-I/(Industry) List-II/(Location)

- A. Railway equipment 1. Kochi  
B. Automobile 2. Ludhiana  
C. Ship-building 3. Bhilai  
D. Bicycle 4. Jabalpur

Code :

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

**Ans : (a)** The correctly matched-

List-I/(Industry) List-II/(Location)

- A. Railway equipment - Bhilai  
B. Automobile - Jabalpur  
C. Ship-building - Kochi  
D. Bicycle - Ludhiana

23. Match List I with List II and select the correct answer using the code given below the Lists:

List I List II  
(Air Pollutant) (Effect)

- A. Chlorofluorocarbon 1. Acid rain  
B. Sulphur dioxide 2. Depletion in ozone layer in the atmosphere  
C. Lead compound 3. Harmful for human nervous system  
D. Carbon dioxide 4. Topmost contribution to greenhouse effect

Code

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

**Ans : (c)** The correctly matched-

List I (Air Pollutant)		List II (Effect)	
A.	Chlorofluorocarbon	2.	Depletion in ozone layer in the atmosphere
B.	Sulphur dioxide	1.	Acid rain
C.	Lead compound	3.	Harmful for human nervous system
D.	Carbon dioxide	4.	Topmost contribution to greenhouse effect

24. Creation of something from nothing is against the law of

- (a) Constant proportions  
(b) Conservation of mass-energy  
(c) Multiple proportions  
(d) Conservation of momentum

**Ans : (b)** Creating something out of nothing is against the law of conservation of energy which states that the total energy of an isolated system cannot change.



**25. Which one of the following diseases in humans can spread through air?**

- (a) Dengue (b) Tuberculosis  
(c) HIV-AIDS (d) Goiter

**Ans : (b)** Airborne diseases are transmitted through the presence of pathogens in the air.

It includes both Viruses and Bacteria, which spread through coughing, sneezing, laughing or personal contact.

Diseases with airborne transmission are Anthrax, Chickenpox, Influenza, Measles, Smallpox, Pneumonia, Colds and Tuberculosis.

**26. Seismic gaps are**

- (a) Parts of plate boundaries in oceans where tsunamis occur frequently.  
(b) Sections of plate boundaries that have ruptured repeatedly in the recent past.  
(c) Sections of plate boundaries that have not ruptured in the recent past.  
(d) Plate boundaries having no volcanic activity.

**Ans : (c)** Seismic gaps are sections of plate boundaries that have not experienced as significant earthquake in a long time.

Seismic gaps are area along active fault lines that have not experienced a large earthquake in over 30 year. The Theory is that over time, the displacement on any segment of a fault must equal that of the other parts.

Because of this large gaps are considered to be the most likely to experienced future earthquake.

**27. In the absence of Cold Labrador Current, which one among the following would happen?**

- (a) There will be no North-East Atlantic fishing grounds  
(b) There will be no North-West Atlantic fishing grounds  
(c) There will be no fishing ground in the North Atlantic Ocean  
(d) Semi-arid condition of the Atlantic coast of the USA and Canada would prevail

**Ans : (b)** "Absence of Cold Labrador Current" implies a hypothetical scenario where the Labrador Current, a cold ocean current in the North Atlantic. Ceases to exist or significantly weakens. Here some potential consequences.

- (i) It temperatures would rise, Potentially, by 2-4°C.  
(ii) Shifts in fish populations and fisheries, change in phytoplankton and zooplankton communities.  
(iii) Middle winter in Eastern Canada and the North eastern United State, warmer summers in the regions.  
(iv) A warmer ocean would lead to thermal expansion contributing to sea-level rise along the Eastern seaboard of North America.

(v) Reduce cold water input would lead to a decline in the sea ice formation.

(vi) Changes in ocean Temperature, sea level and marine eco systems would impact coastal communities fisheries and economies.

**28. An electron and a proton are circulating with same speed in circular paths of equal radius. Which one among the following will happen, if the mass of a proton is about 2,000 times that of an electron?**

- (a) The centripetal force required by the electron is about 2,000 times more than that required by the proton  
(b) The centripetal force required by the proton is about 2,000 times more than that required by the electron  
(c) No centripetal force is required for any charged particle  
(d) Equal centripetal force acts on both the particles as they rotate in the same circular path

**Ans : (b)** To given Radius and speed same.

Let mass of electron = (m)

then mass of proton = 2000 × mass of electron(m)

Centripetal force formula =  $\frac{mv^2}{r}$

Centripetal force of proton =  $2000 \frac{mv^2}{r}$

Centripetal force of proton = 2000 × centripetal force of Electron

So, the centripetal force required by the proton is about 2000 times more than the required by the electron.

**29. Which one among the following metals is prominently used in mobile phone batteries?**

- (a) Copper (b) Zinc  
(c) Nickel (d) Lithium

**Ans : (d)** Lithium is primarily used in mobile phone batteries.

• Two types of batteries are used in modern mobile and Smartphone's - Lithium Polymer and Lithium-Ion.

**30. Which one of the following is the most appropriate and correct practice from the point of view of a healthy environment?**

- (a) Burning of Plastic wastes to keep the environment clean  
(b) Burning of dry and fallen leaves in a garden or field  
(c) Treatment of domestic sewage before its release  
(d) Use of chemical fertilizers in agricultural fields

**Ans : (c)** Treating domestic sewage before its release helps to remove harmful pollutants and pathogens, preventing them from contaminating water sources and causing health risks. This is a crucial step in maintaining a healthy environment.



31. Match List I with List II and select the correct answer using the code given below the Lists:

List-I (Type of Grass)	List-II (Country)
A. Lanos	1. Australia
B. Prairies	2. Venezuela
C. Pampas	3. USA
D. Downs	4. Argentina

Code:

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

Ans : (d) The correctly matched-

List-I	List-II
(Type of Grass)	(Country)
A. Lanos	2. Venezuela
B. Prairies	3. USA
C. Pampas	4. Argentina
D. Downs	1. Australia

32. Who among the following proposed that atom is indivisible?

- (a) Dalton (b) Berzelius  
(c) Rutherford (d) Avogadro

Ans : (a) Dalton's Atomic Theory : Matter made up of Atoms and Atoms can be indivisible.

33. Tank irrigation is commonly found in South-Central parts of India. What could be the reason?

1. Insufficient shallow ground water
2. Rocky plateau with impervious surface depression
3. Undulating terrain helps in accumulation of rain water in depression or man-made tank

Select the correct answer using the code given below:

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

Ans : (d) Tank irrigation is commonly found in South India particularly in the states of Tamil Nadu, Karnataka and Andhra Pradesh due to several reasons-

- (1) In sufficient shallow ground water.
- (2) Rocky plateau with impervious surface depression.
- (3) The undulating terrain helps in accumulation of rainwater in depression or man-made tank.

All three reasons contribute to the prevalence of tank irrigation in the South Central parts of India.

34. Which of the following is/are the reason(s) behind Gujarat being the leading producer of Salt in India?

1. The long length of coastline
2. Long duration of hot and dry conditions
3. Presence of Gulf areas

Select the correct answer using the code given below:

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

Ans : (b) The correct answer is option (b), which states the long period of hot and dry conditions is one of the reasons behind Gujarat being the leading producer of Salt in India.

35. An object is raised to a height of 3 m from the ground. It is then allowed to fall on to a table 1 m high from ground level. In this context, which one among the following statements is correct?

- (a) Its potential energy decreases by two-thirds its original value of total energy.  
(b) Its potential energy decreases by one-third its original value of total energy.  
(c) Its kinetic energy increases by two-thirds, while potential energy increases by one-third.  
(d) Its kinetic energy increases by one-third, while potential energy decreases by one-third.

Ans : (a) Given,  $h = 3\text{m}$

According to law of conservation of energy.

$$P.E = mgh$$

$$P.E_1 = 3mg$$

$$P.E_2 = mg$$

$$\text{Then, } \frac{PE_1 - PE_2}{PE_1}$$

$$= \frac{2mg}{3mg} = \frac{2}{3}$$

So, Its potential energy decreases by two-thirds its original value of total energy.

36. Ozone layer of the Earth's atmosphere is important for living organisms because it

- (a) Prevents entry of ultra-violet rays  
(b) Prevents entry of X-rays  
(c) Maintains level of oxygen on Earth  
(d) Prevents acid rain on Earth

Ans : (a) Ozone layer of the earth's atmosphere is important for living organisms because it prevents entry of ultra-violet rays.

- Which can cause damage to DNA, contribute to skin cancer, and harm ecosystems.

37. If  $82^{\circ}30'$  east longitude (Allahabad) shows 6:00 am of Sunday (local time), what would be the local time of Florida (USA) located on  $82^{\circ}$  west longitude?

- (a) 6:58 pm of Saturday (b) 7:02 pm of Sunday  
(c) 6:58 am of Sunday (d) 7:02 am of Saturday

Ans : (a) The difference between  $82^{\circ}30'$  east and  $82^{\circ}$  west is  $82^{\circ}5 + 82^{\circ} = 164.5^{\circ}$

- The earth rotates  $360^{\circ}$  in 24 hours so:

$$1^{\circ} = 24 \frac{\text{hours}}{360^{\circ}} = 4 \text{ minutes}$$

Therefore, the time difference corresponding to  $164.5^{\circ}$  is:

$$164.5^{\circ} \times 4 \text{ min/degree} = 650 \text{ min}$$

Change in hours and minutes -

$$650 \text{ minutes} = 10 \text{ hours } 50 \text{ minutes}$$

If it is 6:00am Sunday in Allahabad, then Florida, it will be 6:00am (Sunday)- 10 hours 58 minutes = 7:02 pm (Saturday).

Note- Official answer is given option (a)

