

GENERAL STUDIES (PAPER-I)

Time Allowed: Two Hours

Maximum Marks: 200

INSTRUCTIONS

1. IMMEDIATELY AFTER THE COMMENCEMENT OF THE EXAMINATION, YOU SHOULD CHECK THAT THIS TEST BOOKLET DOES NOT HAVE ANY UNPRINTED OR TORN OR MISSING PAGES OR ITEMS, ETC. IF SO, GET IT REPLACED BY A COMPLETE TEST BOOKLET.
2. ENCODE CLEARLY THE TEST BOOKLET SERIES A, B, C OR D AS THE CASE MAY BE IN THE APPROPRIATE PLACE IN THE ANSWER SHEET.
3. You have to enter your Roll Number on the Test Booklet in the Box provided alongside. **DO NOT** write *anything else* on the Test Booklet.
4. This Test Booklet contains **100** items (questions). Each item is printed both in **Hindi** and **English**. Each item comprises four responses (answers). You will select the response which you want to mark on the Answer Sheet. In case you feel that there is more than one correct response, mark the response which you consider the best. In any case, choose **ONLY ONE** response for each item.
5. You have to mark all your responses **ONLY** on the separate Answer Sheet provided. See directions in the Answer Sheet.
6. All items carry equal marks.
7. Before you proceed to mark in the Answer Sheet the response to various items in the Test Booklet, you have to fill in some particulars in the Answer Sheet as per instructions sent to you with your Admission Certificate.
8. After you have completed filling in all your responses on the Answer Sheet and the examination has concluded, you should hand over to the Invigilator only the *Answer Sheet*. You are permitted to take away with you the Test Booklet.
9. Sheets for rough work are appended in the Test Booklet at the end.
10. **Penalty for wrong Answers:**

THERE WILL BE PENALTY FOR WRONG ANSWERS MARKED BY A CANDIDATE IN THE OBJECTIVE TYPE QUESTION PAPERS.

- (i) There are four alternatives for the answer to every question. For each question for which a wrong answer has been given by the candidate, **one-third (0.33)** of the marks assigned to that question will be deducted as penalty.
- (ii) If a candidate gives more than one answer, it will be treated as a **wrong answer** even if one of the given answers happens to be correct and there will be same penalty as above to that question.
- (iii) If a question is left blank i.e., no answer is given by the candidate, there will be **no penalty** for that question.

Indian Polity

1. In India, other than ensuring that public funds are used efficiently and for intended purpose, what is the importance of the office of the Comptroller and Auditor General (CAG)?

1. CAG exercises exchequer control on behalf of the Parliament when the President of India declares national emergency/financial emergency.
2. CAG reports on the execution of projects or programmes by the ministries are discussed by the Public Accounts Committee.
3. Information from CAG reports can be used by investigating agencies to press charges against those who have violated the law while managing public finances.
4. While dealing with the audit and accounting of government companies, CAG has certain judicial powers for prosecuting those who violate the law.

Which of the statements given above is/are correct?

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

Answer - Source CST Indian Political System, Page No. 273-274: Option C. Section 13 of the Comptroller and Auditor General's Act lays down that it is the duty of audit: to ascertain that the money, which has been disbursed was legally available for the service or purpose on which it has been applied and there is a proper authority to spend the money. What happens when a public official spends mon-

ey, which is not legally available viz., it is in violation of laid down rules and regulations. The Act is silent about it – all that the last sentence of Section 13 says, “in each case to report on the expenditure, transaction or accounts so audited by him.” If the C&AG makes a report about the irregular usage of money to the Departments whose officials have committed the default and they contest C&AG's decision or do not take any action, it virtually amounts to the departments sitting over judgment on C&AG's findings and obstructing the duty he is required to perform under the law. In no other country of the world State audit finds itself in such a helpless situation. The Office of CAG doesn't possess any judicial powers to prosecute those who violate the law. Hence option 2 and 3 are correct.

2. The Prime Minister of India, at the time of his/her appointment

- (a) need not necessarily be a member of one of the Houses of the Parliament but must become a member of one of the Houses within six months
- (b) need not necessarily be a member of one of the Houses of the Parliament but must become a member of the Lok Sabha within six months

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(c) must be a member of one of the Houses of the Parliament

(d) must be a member of the Lok Sabha

Answer - Source CST Indian Political System, Page No. 233: Option A. Article 75 (5) A Minister who for any period of six consecutive months is not a member of either House of Parliament shall at the expiration of that period cease to be a Minister.

3. With reference to the Delimitation Commission, consider the following statements:

1. The orders of the Delimitation Commission cannot be challenged in a Court of Law.

2. When the orders of the Delimitation Commission are laid before the Lok Sabha or State Legislative Assembly, they cannot effect any modifications in the orders.

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

Answer - Source CST Indian Political System, Page No. 311: Option C.

Delimitation literally means the act or process of fixing limits or boundaries of territorial constituencies in a country or province having a legislative body. The job of delimitation in India is assigned to the Delimitation Commission or the Boundary Commission. The Delimitation Commission is a high powered body whose orders have the force of law. The orders cannot be questioned before any court of law. The orders come into force on a date specified by the President of India in this behalf. The copies of the orders are laid before the House of the People and State legislative Assembly concerned. But no modification is permissible therein by them.

4. According to the Constitution of India, it is the duty of the President of India to cause to be laid before the Parliament which of the following?

1. The Recommendations of the Union Finance Commission

2. The Report of the Public Accounts Committee

3. The Report of the Comptroller and Auditor General

4. The Report of the National Commission for Scheduled Castes

Select the correct answer using the codes given below: -

(a) 1 only

(b) 2 and 4 only

(c) 1, 3, and 4 only

(d) 1, 2, 3, and 4

Answer - Source CST Indian Political System, Page No. 511: Option C.

The Committee on Public Accounts is constituted by Parliament each year for examination of accounts showing the appropriation of sums granted by Parliament for expenditure of Government of India, the annual Finance Accounts of Government of India, and such other Accounts laid before Parliament as the Committee may deem fit such as accounts of autonomous and semi-autonomous bodies (except those of Public Undertakings and Government Companies which come under the purview of the Committee on Public Undertakings).

5. A deadlock between the Lok Sabha and the Rajya Sabha calls for a joint sitting of the Parliament during the passage of

1. Ordinary Legislation

2. Money Bill

3. Constitution Amendment Bill

Select the correct answer using the codes given below:

(a) 1 only

(b) 2 and 3 only

(c) 1 and 3 only

(d) 1, 2, and 3

Answer - Source CST Indian Political System, Page No. 298-299: Option A.

Joint sittings: Article 108

It is a mechanism to break the deadlock between the Rajya Sabha and Lok Sabha. A deadlock takes place following three situations after a Bill has been passed by one House and transmitted to the other House:

(1) if the Bill is rejected by the other House;

(2) if the Houses have finally disagreed as to the amendments to be made in the bill; or

(3) if more than six months have elapsed from the date of the receipt of the bill by the other House without the Bill being passed by it. In the calculation of period of six months, no account can be taken of any period during which the other House is prorogued or adjourned for more than four consecutive days.

Procedures: The President can summon both the Houses to meet on a joint sitting for the purpose of voting to break the deadlock. The provision of joint sitting is only applicable to ordinary bills which includes First and Second Class Finance Bills. The Money Bill is not subject to the Joint Sittings. It is also not applicable to the Constitutional

Amendment Bills since it must be passed by each House separately.

6. Which of the following is/are among the Fundamental Duties of citizens laid down in the Indian Constitution?

1. To preserve the rich heritage of our composite culture

2. To protect the weaker sections from social injustice

3. To develop the scientific temper and spirit of inquiry

4. To strive towards excellence in all spheres of individual and collective activity

Select the correct answer using the codes given below:

(a) 1 and 2 only

(b) 2 only

(c) 1, 3, and 4 only

(d) 1, 2, 3, and 4

Answer - Source CST Indian Political System, Page No. 215-216: Option C.

Only Japan is the country where fundamental duties have been mentioned. Canada, Australia and Britain have already adopted it.

ELEVEN DUTIES:

(1) To abide by constitution and respect its ideal and institutions, the National Flag and National Anthem.

(2) To cherish and follow the noble ideals which inspired our national struggle for freedom.

(3) To uphold and protect the sovereignty, unity and integrity of India.

(4) To defend the country and render national service when called upon to do so.

(5) To promote harmony and the spirit of common brotherhood amongst all the people of India transcending religious, linguistic and regional or sectional diversities; to renounce practices derogatory to the dignity of women.

(6) To value and preserve the rich heritage of our composite culture.

(7) To protect and improve the natural environment includ-

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ing forests, lakes, rivers and wild life, and to have compassion for living creature.

(8) To develop the scientific temper, humanism and the spirit of inquiry and reform.

(9) To safeguard public property and to abjure violence.

(10) To strive towards excellence in all spheres of individual and collective activity so that the nation constantly rises to higher levels of endeavour and achievements.

(11) Every citizen who is a parent or guardian to provide opportunities for education to his child or, as the case may be, ward between the age of six and fourteen years. (inserted by the 86th Amendment Act, 2002).

7. What is the provision to safeguard the autonomy of the Supreme Court of India?

1. While appointing the Supreme Court Judges, the President of India has to consult the Chief Justice of India.

2. The Supreme Court Judges can be removed by the Chief Justice of India only.

3. The salaries of the Judges are charged on the Consolidated Fund of India to which the legislature does not have to vote.

4. All appointments of officers and staffs of the Supreme Court of India are made by the Government only after consulting the Chief Justice of India.

Which of the statements given above is/are correct?

(a) 1 and 3 only

(b) 3 and 4 only

(c) 4 only

(d) 1, 2, 3, and 4

Answer – Source CST Indian Political System, Page No. 246: Option A. Position of the SC: (1) Removal only by impeachment; salary of judges fixed, not subject to vote of Legislature; as per Article 138 the Parliament can extend, but cannot curtail the jurisdiction and power of the SC; as per Article 121 no discussion in Legislature on the conduct of the Judges; power to punish for its contempt (Article 129 and 215); as per the directives on the basis of Article 50 there should be separation of judiciary from executive; judges of the SC are appointed by the Executive with the consultation of legal experts (Article 124 (2) and 229); prohibition on practice after retirement (Article 124 (7)).

8. In the areas covered under the Panchayat (Extension to the Scheduled Areas) Act, 1996, what is the role/power of Gram Sabha?

1. Gram Sabha has the power to prevent alienation of land in the Scheduled Areas.

2. Gram Sabha has the ownership of minor forest produce.

3. Recommendation of Gram Sabha is required for granting prospecting licence or mining lease for any mineral in the Scheduled Areas.

Which of the statements given above is/are correct?

(a) 1 only

(b) 1 and 2 only

(c) 2 and 3 only

(d) 1, 2, and 3

Answer – Source CST Indian Political System, Page No. 375: Option B. PESA provides that the Gram Sabha will approve plans, programmes and projects before they are taken up for implementation by the Panchayat at the village level, identify beneficiaries for poverty alleviation and other programmes. Every Panchayat at the village level is required to obtain a certification of utilization of funds from the Gram Sabha for the above programmes. Planning and management of minor water bodies will be done by the

Panchayats at the appropriate level.

9. In the Parliament of India, the purpose of an adjournment motion is

(a) to allow a discussion on a definite matter of urgent public importance

(b) to let opposition members collect information from the ministers

(c) to allow a reduction of specific amount in demand for grant

(d) to postpone the proceedings to check the inappropriate or violent behaviour on the part of some members

Answer - Source CST Indian Political System, Page No. 295: Option A. Adjournment Motion: A matter of urgent public importance, however, can be brought before the House through an adjournment motion by interrupting the regular business, if speaker agrees to do so :

(a) The matter must be definite.

(b) It should have a factual base.

(c) Issue must be urgent.

(d) It must be of public importance Timing 1600 hrs. - 1830 hrs.

10. The National Green Tribunal Act, 2010 was enacted in consonance with which of the following provisions of the Constitution of India?

1. Right to healthy environment, construed as a part of Right to life under Article 21

2. Provision of grants for raising the level of administration in the Scheduled Areas for the welfare of Scheduled Tribes under Article 275(1)

3. Powers and functions of Gram Sabha as mentioned under Article 243(A)

Select the correct answer using the codes given below:

(a) 1 only

(b) 2 and 3 only

(c) 1 and 3 only

(d) 1, 2, and 3

Answer – Option A: Environment protection is enshrined in the Constitution of India [Article 48A and Article 51A (g)]. Wide-ranging policies, programmes and projects are in place, which directly or indirectly serve to protect, conserve and sustainably use the country's biological resources.

11. Consider the following provisions under the Directive Principles of State Policy as enshrined in the Constitution of India:

1. Securing for citizens of India a uniform civil code

2. Organizing village Panchayats

3. Promoting cottage industries in rural areas

4. Securing for all the workers reasonable leisure and cultural opportunities

Which of the above are the Gandhian Principles that are reflected in the Directive Principles of State Policy?

(a) 1, 2, and 4 only

(b) 2 and 3 only

(c) 1, 3, and 4 only

(d) 1, 2, 3, and 4

Answer - Source CST Indian Political System, Page No. 207: Option B. (1) Panchayati Raj - Art. 40

(2) Prohibition of intoxicants except for medical

(3) Promotion of cottage industries (Art. 43)

(4) Improvement of animal husbandry and agriculture

(Art. 48)

12. Consider the following statements:

1. Union Territories are not represented in the Rajya Sabha.
2. It is within the purview of the Chief Election Commissioner to adjudicate the election disputes.
3. According to the Constitution of India, the Parliament consists of the Lok Sabha and the Rajya Sabha only.

Which of the statements given above is/are correct?

- (a) 1 only (b) 2 and 3
(c) 1 and 3 (d) None

Answer – Source CST Indian Political System, Page No. 279: Option D.**Page 279:** 238 representatives of the States and the Union Territories; Delhi has 3 and Puducherry has one.**Page 279:** As per Article 79: Parliament has three wings: (a) Lok Sabha; (b) Rajya Sabha; and (c) the President.**13.** Regarding the office of the Lok Sabha Speaker, consider the following statements:

1. He/She holds the office during the pleasure of the President.
2. He/She needs not be a member of the House at the time of his/her election but has to become a member of the House within six months from the date of his/her election.
3. If he/she intends to resign, the letter of his/her resignation has to be addressed to the Deputy Speaker.

Which of the statements given above is /are correct?

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

Answer - Option B. The Speaker holds office from the date of his election till immediately before the first meeting of the Lok Sabha after the dissolution of the one to which he was elected. Speaker is eligible for re-election. On the dissolution of the Lok Sabha, although the Speaker ceases to be a member of the House, he does not vacate his office. The Speaker may, at any time, resign from office by writing under his hand to the Deputy Speaker. The Speaker can be removed from office only on a resolution of the House passed by a majority of all the then members of the House. Such a resolution has to satisfy some conditions like: it should be specific with respect to the charges

and it should not contain arguments, inferences, ironical expressions, imputations or defamatory statements, etc. Not only should these, discussions be confined to charges referred to in the resolution. It is also mandatory to give a minimum of 14 days' notice of the intention to move the resolution.

14. Which of the following are included in the original jurisdiction of the Supreme Court?

1. A dispute between the Government of India and one or more States
2. A dispute regarding elections to either House of the Parliament or that of Legislature of a State
3. A dispute between the Government of India and a Union Territory
4. A dispute between two or more States

Select the correct answer using the codes given below:

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

Answer - Source CST Indian Political System, Page No. 243: Option C. The SC has original jurisdiction in any dispute: (a) Between the Government of India (GOI) and one or more States; (b) Between the Government of India (GOI) and any State or States on one side and one or more other States on the other; and (c) Between two or more States. (Article 131)

15. Which of the following special powers have been conferred on the Rajya Sabha by the Constitution of India?

- (a) To change the existing territory of a State and to change the name of a State
(b) To pass a resolution empowering the Parliament to make laws in the State List and to create one or more All India Services
(c) To amend the election procedure of the President and to determine the pension of the President after his/her retirement
(d) To determine the functions of the Election Commission and to determine the number of Election Commissioners

Answer – Source CST Indian Political System, Page No. 281: Option B. Special Powers of Rajya Sabha:

(1) Article 312, the RS has the power to create an All India Services.

(2) Article 67(b) a Vice President may be removed from his office by a resolution of the Council of States passed by a majority of all then members of the Council.

(3) Article 249 provides that if RS has declared by resolution supported by not less than two-thirds of the members present and voting that it is necessary or expedient in the national interest that Parliament should make laws with respect to any matter enumerated in the State List specified in the resolution.

(4) Article 352(4) provides that when the LS has been dissolved, or the dissolution of the LS takes place during the period of one month referred to in this clause, and if a resolution approving the Proclamation has been passed by the RS.

16. Which of the following are the methods of Parliamentary control over public finance in India?

1. Placing Annual Financial Statement before the Parliament
2. Withdrawal of moneys from Consolidated Fund of India only after passing the Appropriation Bill
3. Provisions of supplementary grants and vote-on-account
4. A periodic or at least a mid-year review of programme of the Government against macroeconomic forecasts and expenditure by a Parliamentary Budget Office
5. Introducing Finance Bill in the Parliament

Select the correct answer using the codes given below:

- (a) 1, 2, 3, and 5 only (b) 1, 2, and 4 only
(c) 3, 4, and 5 only (d) 1, 2, 3, 4, and 5

Answer – Source CST Indian Political System, Page No. 297: Option A. Article 112, 113, 265 and Rule 104. No tax should be levied or collected except by authority of Parliament and that the President shall, in respect of every financial year, cause to be laid before both Houses, the annual financial statement.

Article 113. Demands for grants: (a) No demand for a grant shall be made except on the recommendation of the Presi-

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dent; (b) Only the government can present a demand for grant and not the private members; (3) Demands for grants indicate separately the voted and charged items of expenditure.

17. Which of the following provisions of the Constitution of India have a bearing on Education?

1. Directive Principles of State Policy
2. Rural and Urban Local Bodies
3. Fifth Schedule
4. Sixth Schedule
5. Seventh Schedule

Select the correct answer using the codes given below:

- (a) 1 and 2 only
- (b) 3, 4 and 5 only
- (c) 1, 2 and 5 only
- (d) 1, 2, 3, 4, and 5

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Answer – Source CST Indian Political System, Page No. 117, 207, 375, 408: Option C.

Page 117 about 6th Schedule; Page 207: Free and Compulsory Education for all children below 14 years (Art. 45)

Page 375: PESA extends Part IX of the Constitution to Fifth Schedule Areas, subject to certain exceptions and modifications.

Page 408: The seventh schedule of the Constitution enshrines the apportionment of powers between the Centre and the States in the form of the Union, Concurrent and State Lists.

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Economic and Social Issues

1. The endeavour of 'Janani Suraksha Yojana' Programme is

1. to promote institutional deliveries
2. to provide monetary assistance to the mother to meet the cost of delivery
3. to provide for wage loss due to pregnancy and confinement

Which of the statements given above is /are correct?

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

Answer - Source CST May 2012, Page No. 231 and Option A. Janani Suraksha Yojana (JSY): This 100 per cent centrally sponsored scheme was launched with a focus on demand promotion for institutional deliveries in States and regions where these are low. It targeted lowering of the MMR by ensuring that deliveries were conducted by skilled birth attendants. The JSY scheme has shown rapid growth in the last three years, with 90.37 lakh beneficiaries in 2008-9 to 106.96 lakh beneficiaries in 2010-11.

2. Consider the following:

1. Hotels and restaurants
2. Motor transport undertakings
3. Newspaper establishments
4. Private medical institutions

The employees of which of the above can have the 'Social Security' coverage under Employees' State Insurance

Scheme?

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

Answer – Source CST India 2012, Page No: 98 Option D.

The Employees' State Insurance Act, 1948: The Employees State Insurance Act, 1948 is applicable in the first instance, to non-seasonal factories using power and employing 10 or more persons and non-power using factories employing 20 or more persons.

3. How do District Rural Development Agencies (DRDAs) help in the reduction of rural poverty in India?

1. DRDAs act as Panchayati Raj Institutions in certain specified backward regions of the country.
2. DRDAs undertake area-specific scientific study of the causes of poverty and malnutrition and prepare detailed remedial measures.
3. DRDAs secure inter-sectoral and inter-departmental co-ordination and cooperation for effective implementation of anti-poverty programmes.

4. DRDAs watch over and ensure effective utilization of the funds intended for anti-poverty programmes.

Which of the statements given above is/are correct?

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

Answer - Source CST India 2012, Page No: 105 Option B.

This programme is implemented through a synergistic partnership with State Governments and under the direct supervision of DRDAs in close collaboration with the various PRIs. The National Social Assistance Programme (NSAP) then comprised of National Old Age Pension Scheme (NOAPS), National Family Benefit Scheme (NFBS) and National Maternity Benefit Scheme (NMBS). (Therefore, the statement indicates that DRDAs functions different from PRIs and works for implementation and does surveys.

4. The Reserve Bank of India (RBI) acts as a bankers' bank. This would imply which of the following?

1. Other banks retain their deposits with the RBI.
2. The RBI lends funds to the commercial banks in times of need.
3. The RBI advises the commercial banks on monetary matters.

Select the correct answer using the codes given below:

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

Answer – Source CST May 2012, Page No. 189 and Option B.

Cash in hand with the RBI- cash in hand and balances with other banks including the RBI. CRR- As banker's bank, the RBI holds a part of the cash reserves of Banks.

5. Under which of the following circumstances may 'capital gains' arise?

1. When there is an increase in the sales of a product
2. When there is a natural increase in the value of the property owned
3. When you purchase a painting and there is a growth in its value due to increase in its popularity

Select the correct answer using the codes given below:

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

Answer - Source CST Indian Economy, Page No. 139-

140 and Option B. CAPITAL GAIN TAX

It was imposed in 1947. But the tax was withdrawn in 1950. A tax on capital gain was re-introduced in 1956. Here capital gain was meant a financial gain resulting from the sale of a capital asset at a higher price than what it was paid for it. Under Section 45 of the Income Tax Act 1961, profits or gains arising from transfer of capital assets affected in the previous year, are chargeable under the head 'Capital Gains'.

6. Which of the following measures would result in an increase in the money supply in the economy?

1. Purchase of government securities from the public by the Central Bank
2. Deposit of currency in commercial banks by the public
3. Borrowing by the government from the Central Bank
4. Sale of government securities to the public by the Central Bank

Select the correct answer using the codes given below:

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

Answer - Source CST May 2012, Page No. 187 and Option C.

CRR is a weapon of control of money supply—An increase in the Bank Rate by raising the cost of borrowed reserves, other things being the same, discourages bank borrowings from the Central Bank. Under the repo or repurchase option, banks borrow money from the RBI via the sale of securities with an agreement to purchase the securities back at a fixed rate at a future date. The rate charged by the RBI to aid this process of liquidity injection is termed as the repo rate. Under the reverse repo operation, the RBI borrows money from the banks, draining liquidity out from the system. The rate at which the RBI borrows money is the reverse repo rate. The interest rate on the LAF is fixed by the RBI from time to time. LAF operations help the RBI effectively transmit interest rate signals to the market.

In the international parlance, while “repo” denotes injection of liquidity by the central bank against eligible collateral, “reverse repo” denotes absorption of liquidity by the central bank against eligible collateral. On the contrary, in the Indian context, “repo” denotes liquidity absorption by the Reserve Bank and “reverse repo” denotes liquidity injection. Internationally, the term “Repo” is used for central bank operations that inject liquidity into the system, whereas the term “Reverse Repo” is used for absorption of liquidity. In 2004, it has been decided that such international usage of “Repo” and “Reverse Repo” terms should be adopted under revised LAF.

7. Which of the following would include Foreign Direct Investment in India?

1. Subsidiaries of companies in India
2. Majority foreign equity holding in Indian companies
3. Companies exclusively financed by foreign companies
4. Portfolio investment

Select the correct answer using the codes given below:

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

Answer - Source CST Indian Economy, Page No. 360 and CST May 2012, Page No. 211: Option D.

Page No. 360, Indian Economy CST: Privatization and Privatization through foreign investment are two different concepts. In first phase of reforms only Indian private sec-

tor was provided opportunities. But in second generation there was involvement of foreign companies. Now they can directly reach to the Indian market. There is no limitation on the amount of the investment by them.

Page 211, May 2012 CST: The main components of capital account include foreign investment, loans, and banking capital. Foreign investment comprising foreign direct investment (FDI) and portfolio investment consisting of foreign institutional investor (FIIs) investment and American depository receipts / global depository receipts (ADRs/GDRs) represents non-debt liabilities. Loans (external assistance, external commercial borrowings [ECB], and trade credit) and banking capital including nonresident Indian (NRI) deposits are debt liabilities.

8. Consider the following statements:

The price of any currency in international market is decided by the

1. World Bank
2. demand for goods/services provided by the country concerned
3. stability of the government of the concerned country
4. economic potential of the country in question

Which of the statements given above are correct?

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

Answer - Source CST Indian Economy, Page No. 186-187 and Option B.

The exchange rate policy is guided by the broad principles of careful monitoring and management of exchange rates with flexibility, while allowing the underlying demand and supply conditions to determine its movements over a period in an orderly manner. When the government intervenes in the exchange markets to affect its exchange rate. It is also called pegged exchange rate.

In general, currency values are allowed to fluctuate with market demand and supply, but wide fluctuations are prevented by central bank interventions. It is also called “Dirty Floating”.

9. The basic aim of Lead Bank Scheme is that (a) big banks should try to open offices in each district

- (b) there should be stiff competition among the various nationalized banks
- (c) individual banks should adopt particular districts for intensive development
- (d) all the banks should make intensive efforts to mobilize deposits

Answer - Source CST Indian Economy, Page No. 57-58 and Option C. Lead Bank Scheme:

▶ The Branch expansion programme of banks in the post-nationalisation phase was supposed to be interwoven with the Lead Bank Scheme, adopted in 1969. The scheme was recommended by Gadgil Group.

▶ They were suppose to play the lead role in the expansion of Banking facilities and to act as consortium leaders for coordinating the activities of co-operatives, commercial banks and other financial institutions in their respective districts.

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► Each Lead Bank is expected to survey the districts, identify unbanked centres and set up branches in phased manner.

10. Despite having large reserves of coal, why does India import millions of tonnes of coal?

1. It is the policy of India to save its own coal reserves for future, and import it from other countries for the present use.
2. Most of the power plants in India are coal-based and they are not able to get sufficient supplies of coal from within the country.
3. Steel companies need large quantity of coking coal which has to be imported.

Which of the statements given above is/are correct?

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

Answer - Option B. Option 2 and 3 are correct only. India primarily imports coal because 55% of its power generation capacity is based on thermal coal. India is facing a coal shortage even as it tries to boost electricity generation capacity to serve the needs of a growing economy.

11. If National Water Mission is properly and completely implemented, how will it impact the country?

1. Part of the water needs of urban areas will be met through recycling of wastewater.
2. The water requirements of coastal cities with inadequate alternative sources of water will be met by adopting appropriate technologies that allow for the use of ocean water.
3. All the rivers of Himalayan origin will be linked to the rivers of peninsular India,
4. The expenses incurred by farmers for digging bore-wells and for installing motors and pump-sets to draw groundwater will be completely reimbursed by the Government.

Select the correct answer using the codes given below:

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

Answer - Option B. The five identified goals of the National Water Mission are: - (a) comprehensive water data base in public domain and assessment of impact of climate change on water resource; (b) promotion of citizen and state action for water conservation, augmentation and preservation; (c) focused attention to over-exploited areas; (d) increasing water use efficiency by 20%, and (e) promotion of basin level integrated water resources management.

12. With reference to consumers' rights/ privileges under the provisions of law in India, which of the following statements is/are correct?

1. Consumers are empowered to take samples for food testing.
2. When a consumer files a complaint in any consumer forum, no fee is required to be paid.
3. In case of death of a consumer, his/her legal heir can file a complaint in the consumer forum on his/her behalf.

Select the correct answer using the codes given below:

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

Answer - Option C. Consumers are required to pay nominal fees. The fee depends on the amount of compensation claimed. Rs 100 is charged when claiming a compensation of upto Rs 1,00,000. A complaint can be placed with dis-

trict forum only if compensation does not exceed Rs 20 lakhs.

13. Which of the following can be said to be essentially the parts of Inclusive Governance?

1. Permitting the Non-Banking Financial Companies to do banking
2. Establishing effective District Planning Committees in all the districts
3. Increasing the government spending on public health
4. Strengthening the Mid-day Meal Scheme

Select the correct answer using the codes given below:

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

Answer - Source CST Indian Economy, Page No. 396 and Option C. Basically, the concept of inclusive growth is a utopian one. It is based on the assumption on equitable allocation of resources with benefits accruing to every section of society. But at the same time the allocation of resources must be focused on the indented short and long terms benefits and economic linkages at large and not just equitable mathematically on some regional and population criteria. By and large, it encompasses 'broad-based growth', 'shared growth', and 'pro-poor growth'. It focuses on a long term perspective and is concerned with sustained growth while maintaining the balance between both the pace and pattern of growth.

14. With reference to National Rural Health Mission, which of the following are the jobs of 'ASHA', a trained community health worker?

1. Accompanying women to the health facility for antenatal care check-up
2. Using pregnancy test kits for early detection of pregnancy
3. Providing information on nutrition and immunization
4. Conducting the delivery of baby

Select the correct answer using the codes given below:

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

Answer - Source CST India 2012, Page No. 80 and Option A. ► Every village/large habitat

will have a female Accredited Social Health Activist (ASHA) – chosen by and accountable to the panchayat – to act as the interface between the community and the public health system.

► The States will be free to choose State specific models.
► ASHA would act as a bridge between the ANM and the village and be accountable to the Panchayat.

► ASHA will be an honorary volunteer, receiving performance based compensation for promoting universal immunization, referral and escort services for RCHs, construction of household toilets, and other healthcare delivery programmes. The Government of India will bear the cost of training, incentives and medical kits. The remaining components will be funded under Financial Envelope given to the States under the programme.

► ASHA (Accredited Social Health Activists) will be given a Drug Kit containing generic AYUSH and allopathic formulations for common ailments. The drug kit would be

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replenished from time to time.

15. How does the National Rural Livelihood Mission seek to improve livelihood options of rural poor?

1. By setting up a large number of new manufacturing industries and agribusiness centres in rural areas
2. By strengthening 'self-help groups' and providing skill development
3. By supplying seeds, fertilizers, diesel pump-sets, and micro-irrigation equipment free of cost to farmers

Select the correct answer using the codes given below:

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

Answer - Source CST July 2011, Page No. 80 and Option

B. Option B. The programme is expected to adopt a multi-pronged strategy to reduce poverty by enabling the poor households to access gainful self-employment and skilled wage employment opportunities. This programme is designed in a way to be implemented by a dedicated support structure starting from bottom to top. Cluster-level forum and gram panchayat level forum will be constituted and through them, various activities for livelihood generation will be created, so that wastage of funds can be stopped and maximum dividend of the project is made available to the needy section of the society.

16. The Multi-dimensional Poverty Index developed by Oxford Poverty and Human Development Initiative with UNDP support covers which of the following?

1. Deprivation of education, health, assets and services at household level
2. Purchasing power parity at national level
3. Extent of budget deficit and GDP growth rate at national level

Select the correct answer using the codes given below:

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

Answer - Source CST May 2012, Page No. 137 and Option

A. On the Multidimensional Poverty Index 53.7 per cent Indians have been placed in the bracket of multi-dimensionally poor (612 million), the largest concentration of such poor persons in the world. Multidimensional Poverty Index (MPI) examines factors such as health services, access to clean water and cooking fuels, plus basic household goods and home construction standards, which together offer a fuller portrait of poverty than income measurements alone. The MPI measures deficits in health, education and living standards, combining both the number of deprived people and the intensity of their deprivations.

17. Which of the following is /are among the noticeable features of the recommendations of the Thirteenth Finance Commission?

1. A design for the Goods and Services Tax, and a compensation package linked to adherence to the proposed design
2. A design for the creation of lakhs of jobs in the next ten years in consonance with India's demographic dividend
3. Devolution of a specified share of central taxes to local bodies as grants

Select the correct answer using the codes given below:

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

Answer - Source CST Indian Economy, Page No. 376

and Option A. In order to make the GST practicable, FC XIII recommended the sanction of Rs 50,000 crore as compensation for revenue losses of States on account of the implementation of the GST.

18. What is/are the recent policy initiative(s) of Government of India to promote the growth of manufacturing sector?

1. Setting up of National Investment and Manufacturing Zones
2. Providing the benefit of 'single window clearance'
3. Establishing the Technology Acquisition and Development Fund

Select the correct answer using the codes given below:

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

Answer - Source CST May 2012, Page No. 163 and Option

D. The NMP envisages large integrated industrial townships, national investment and manufacturing zones (NIMZs) with state-of-the-art infrastructure, lesser regulatory and compliance burden, faster clearances and fiscal incentives. The NMP, in proposing large-scale coagulation of funds and resources basically via government fiat to form industry clusters termed National Investment and Manufacturing Zones. The NIMZs have been conceived as townships with state-of-the-art infrastructure and self-regulation through a special-purpose vehicle (SPV). Akin to integrated industrial townships, the NIMZs will get government support to create world-class infrastructure and the benefit of single-window clearances and relatively flexible labour rules. The zones will rely on clean and energy-efficient technologies. On management of National Investment and Manufacturing Zones (NIMZs), the policy says the governing body in the form of special purpose vehicle (SPV) would be headed by a government official.

19. In India, in the overall Index of Industrial Production, the Indices of Eight Core Industries have a combined weight of 37.90 per cent. Which of the following are among those Eight Core Industries?

1. Cement
2. Fertilizers
3. Natural gas
4. Refinery products
5. Textiles

Select the correct answer using the codes given below:

- (a) 1 and 5 only (b) 2, 3, and 4 only
(c) 1, 2, 3, and 4 only (d) 1, 2, 3, 4, and 5

Answer - Option C. The Eight Core industries that have a combined weight of 37.90 per cent in the Index of Industrial Production (IIP) are: (a) Coal (b) Crude Oil (c) Natural Gas (d) Petroleum refinery products (e) Fertilizers (f) Steel (g) Cement (h) Electricity.

Ancient Indian History

1. Lord Buddha's image is sometimes shown with the hand gesture called 'Bhumisparsha Mudra'. It symbolizes (a) Buddha's calling of the Earth to watch over Mara and to prevent Mara from disturbing his meditation (b) Buddha's calling of the Earth to witness his purity and chastity despite the temptations of Mara

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(c) Buddha's reminder to his followers that they all arise from the Earth and finally dissolve into the Earth, and thus this life is transitory

(d) Both the statements (a) and (b) are correct in this context

Answer - Option B. According to Buddhism, Buddha used the Bhumisparsha gesture to summon the earth goddess, Sthavara as witness to his attainment of Buddhahood. This gesture signifies the state of enlightenment after meditating under the bodhi tree for four weeks and withstanding all the temptations put before him by Mara, the god of evil.

2. The religion of early Vedic Aryans was primarily of

(a) Bhakti

(b) image worship and Yajnas

(c) worship of nature and Yajnas

(d) worship of nature and Bhakti

Answer - Source CST Indian History, Page No. 51: Option C.

Religion in Later Vedic Period: In the later Vedic period, religion started more guided towards monotheism; Sacrifices started declining and Vedic god's position started declining especially the position of Varuna, Indra, Agni faded out; The Vak Devi, Agni faded out; the concept of soul became popular; Upanishads became more important and stressed very little on sacrifices and followed Gyanmarg; New the early Upanishads started the Ashrams especially three Ashram. The later Vedic period represented a transition from Kand-marg to Karmmarg by Gyanmarg;

3. With reference to the guilds (Shreni) of ancient India that played a very important role in the country's economy, which of the following statements is /are correct?

1. Every guild was registered with the central authority of the State and the king was the chief administrative authority on them.

2. The wages, rules of work, standards and prices were fixed by the guild.

3. The guild had judicial powers over its own members.

Select the correct answer using the codes given below:

(a) 1 and 2 only

(b) 3 only

(c) 2 and 3 only

(d) 1, 2, and 3

Answer- Source CST Indian History, Page No. 140-141: Option C.

Srenis meant Guild headed by executive officers (Adhyakshas, or Jyesthaka, or Mukhyas), usually hereditary in character and not elective - assisted by committee of two or five called Samuhahitavadins: Advisors of the public good and Karachintaka: For Public business. According to Braspati: Guilds had power to punish. Arthashastra's one chapter Kantakasodhana is devoted to strict control of artisans and traders by the state. Nagar-sresthins or Srestin: acted as bankers and moneylenders. Sresthi-Kulika-Naigama: Federation or central guild of Bankers, craftsman and guilds. Akshyanivi: (1) a permanent endowment with a guild or banker, (2) the guilds spent the profits or interest on the deposits according to the terms stated by the depositors. Only distribution was not fixed by the Guilds.

4. With reference to the scientific progress of ancient India, which of the statements given below are correct?

1. Different kinds of specialized surgical instruments were in common use by 1st century AD.

2. Transplant of internal organs in the human body had begun by the beginning of 3rd century AD.

3. The concept of sine of an angle was known in 5th century AD.

4. The concept of cyclic quadrilaterals was known in 7th century AD.

Select the correct answer using the codes given below:

(a) 1 and 2 only

(b) 3 and 4 only

(c) 1, 3, and 4 only

(d) 1, 2, 3, and 4

Answer- Option C.

5. With reference to the history of ancient India, which of the following was/were common to both Buddhism and Jainism?

1. Avoidance of extremities of penance and enjoyment

2. Indifference to the authority of the Vedas

3. Denial of efficacy of rituals

Select the correct answer using the codes given below:

(a) 1 only

(b) 2 and 3 only

(c) 1 and 3 only

(d) 1, 2 and 3

Answer - Option B. Jainism and Buddhism denied the efficacy of rituals and were indifferent to the authority of Vedas but in the case of penance and enjoyment they differed.

Medieval Indian History

1. With reference to the religious history of medieval India, the Sufi mystics were known to pursue which of the following practices?

1. Meditation and control of breath

2. Severe ascetic exercises in a lonely place

3. Recitation of holy songs to arouse a state of ecstasy in their audience

Select the correct answer using the codes given below:

(a) 1 and 2 only

(b) 2 and 3 only

(c) 3 only

(d) 1, 2, and 3

Answer - Source CST Indian History, Page No. 193: Option D.

Sufism represents the inward or esoteric side of Islam or the mystical dimension of Muslim religion. However, the Sufi saints transcending all religious and communal distinctions, worked for promoting the interest of humanity at large. The Sufis were a class of philosophers remarkable for their religious catholicity. They believed that God is 'Mashuq' and Sufis are the 'Ashiqs'. Sufism took roots in both rural and urban areas and exercised a deep social, political and cultural influence on the masses. It rebelled against all forms of religious formalism, orthodoxy, falsehood and hypocrisy and endeavoured to create a new world order in which spiritual bliss was the only and the ultimate goal. Sufism crystallized itself into various 'Silsilahs' or orders.

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Modern Indian History

1. Consider the following statements:

The most effective contribution made by Dadabhai Naoroji to the cause of Indian National Movement was that he

1. exposed the economic exploitation of India by the British

2. interpreted the ancient Indian texts and restored the self-confidence of Indians

3. stressed the need for eradication of all the social evils before anything else

Which of the statements given above is/are correct?

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

Answer - Source CST Mains I Modern India , Page No. 40: Option A. The membership were highly energetic like Dadabhai Naoroji who had already exposed the British imperialism. All were dedicated and knew the fundamentals of economics which was detrimental to the health of British who wanted to hide their complex economic policies around the world. Hence only option 1 is correct.

2. The Rowlatt Act aimed at

- (a) compulsory economic support to war efforts
(b) imprisonment without trial and summary procedures for trial
(c) suppression of the Khilafat Movement
(d) imposition of restrictions on freedom of the press

Answer - Source CST Indian History, Page No. 379: Option B. 1. it sought to curtail the liberty of people;

2. it provided for speedy trial of offences by a special court consisting of three High Court Judges;

3. there was to be no appeal;

4. the provincial government could order any person, on suspicion, "to furnish security ought to notify his residence, or to reside in a particular area or to abstain from any specified Act, or finally to report himself to the police";

5. the provincial government had powers to search a place and arrest a suspected person without warrant;

6. there was a provision for an Investigation committee of 3 persons appointed by provincial government, before whom the accused could appear and offer an explanation but could not engage a lawyer. Thus in nutshell this Act suspended the right of Habeas Corpus.

3. The Lahore Session of the Indian National Congress (1929) is very important in history, because

1. the Congress passed a resolution demanding complete independence

2. the rift between the extremists and moderates was resolved in that Session

3. a resolution was passed rejecting the two-nation theory in that Session

Which of the statements given above is/are correct?

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

Answer - Source CST Indian History, Page No. 448: Option A.

Page 448: Poorna Swaraj or Complete Independence and Civil Disobedience Movement was adopted; the unicolour flag hoisted; 26th January, 1930 was hoisted.

Page 447: 1907: Over the issue of Presidentship and magnitude of Swadeshi, split took place, two new groups were formed : Moderates and Extremists.

Page 448: In 1940, at Ramgarh, the Pakistan Resolution was also passed.

4. Which of the following statements is/are correct regarding Brahmo Samaj?

1. It opposed idolatry.

2. It denied the need for a priestly class for interpreting the religious texts.

3. It popularized the doctrine that the Vedas are infallible. Select the correct answer using the codes given below:

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

Answer - Source CST Mains I Modern India , Page No. 50, Col II: Option B. They were those who wanted to reform the existing system on the western lines of rationalization, and scientific orientation. It was basically sponsored by western educated intelligentsia and wanted inevitable introspection. They wanted to remove social obscurantism, idolatry, polytheism and wanted widow remarriage, female education, egalitarian society and greater mobility.

Mains I Modern India , Page No. 54, Col II (Box): Dayanand Saraswati founded Arya Samaj (Noble Society); called "Go Back to Vedas".

5. Consider the following:

1. Assessment of land revenue on the basis of nature of the soil and the quality of crops

2. Use of mobile cannons in warfare

3. Cultivation of tobacco and red chillies

Which of the above was/were introduced into India by the English?

- (a) 1 only
(b) 1 and 2
(c) 2 and 3
(d) None

Answer - Source CST Indian History, Page

No. 142, 230 and 248 : Option D.

Page No. 142: Tobacco introduced in 17th century by Portuguese during the reign of Akbar and Jahangir. Assessment of land revenue on the basis of nature of soil and the quality of crops had been in practice in India since the Gupta period. Cannons were first introduced in India in the medieval period. Tobacco and red chillies were introduced by the Portuguese.

Page No. 230: Babur conquered Bhirra and at the Battle of Bhirra gunpowder was used for the first time;

Page No. 248: Land was categorised into:

(1) Polaj: land which was annually cultivated for each crop in succession and was never allowed to remain fallow.

(2) Parti: the land left out of cultivation for time so that it might recover its strength.

(3) Chachar: was remained fallow for 3-4 years.

(4) Banjar: had remained uncultivated for 5 or more years. For the purpose of measurement of land Akbar introduced Ilahi Gaj having 41 digits. Ain-i-Dahsala system was introduced by Todar Mal.

6. The distribution of powers between the Centre and the States in the Indian Constitution is based on the scheme provided in the

- (a) Morley-Minto Reforms, 1909
(b) Montagu-Chelmsford Act, 1919
(c) Government of India Act, 1935
(d) Indian Independence Act, 1947

Answer - Source CST Indian History, Page No. 415: Option C. There was a provision of Dyarchy at the Centre.

As regards the subject matter of Federal and Provincial laws, there were three lists:

(1) Federal Legislative Lists; consisted of 59 items like Ex-

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ternal Affairs, Defence, Currency and Coinage, Naval, Census, Ecclesiastic Affairs, etc.

(2) Provincial Legislative Lists; consisted of 54 items of local interest like, Education, Public Services, Police, etc., and

(3) Concurrent Legislative Lists; consisted of 26 subjects like Criminal Law, Criminal Procedure, Civil Procedure, Marriage and Divorce, Arbitration, etc.

(d) Residuary Legislative powers were vested in the Governor-General to decide in his sole discretion as to under which list a particular subject fell.

7. The Congress ministries resigned in the seven provinces in 1939, because

(a) the Congress could not form ministries in the other four provinces

(b) emergence of a left wing' in the Congress made the working of the ministries impossible

(c) there were widespread communal disturbances in their provinces

(d) None of the statements (a), (b) and (c) given above is correct

Answer - Source CST Indian History, Page No. 640:

Option D. World War II: British Government made India a party to the World War II without consulting Indian opinion and even without any formal reference to the Central Legislative Assembly. This move was strongly opposed by the Congress Working Committee. The Committee wanted the British to explain their war aims. This led to resignation of Congress Ministries in 7 Provinces (Except Assam) and their administration was taken over by governors under section 93 of the Act of 1935. The actual reason was that Congress, following its policy of non cooperation in the war effort had called upon the ministries to resign.

8. Which of the following is/are the principal feature(s) of the Government of India Act, 1919?

1. Introduction of dyarchy in the executive government of the provinces

2. Introduction of separate communal electorates for Muslims

3. Devolution of legislative authority by the centre to the provinces

Select the correct answer using the codes given below:

(a) 1 only (b) 2 and 3 only

(c) 1 and 3 only (d) 1, 2, and 3

Answer - Source CST Indian History, Page No. 412-413:

Option C. The new scheme of Government envisaged a division of subjects into the Central List and the Provincial List. Instead of single-bicameral house was created: the Council of State and the Legislative Assembly,

Dyarchy was introduced in Provinces: Subject of Administration was divided into two lists: (i) Transferred and (ii) Reserved

9. During Indian freedom struggle, the National Social Conference was formed. What was the reason for its formation?

(a) Different social reform groups or organizations of Bengal region united to form a single body to discuss the issues of larger interest and to prepare appropriate petitions/representations to the government.

(b) Indian National Congress did not want to include social reforms in its deliberations and decided to form a separate

body for such a purpose.

(c) Behramji Malabari and M. G. Ranade decided to bring together all the social reform groups of the country under one organization

(d) None of the statements (a), (b) and (c) given above is correct in this context

Answer - Option C. In fact, the entire pace of social reforms were coming down significantly and political activities were gaining more ground, therefore, in order to bring different social organisation, the National Social Conference was founded in 1887. The INC preferred to restrict to only political affairs.

10. Which of the following parties were established by Dr. B. R. Ambedkar?

1. The Peasants and Workers Party of India

2. All India Scheduled Castes Federation

3. The Independent Labour Party

Select the correct answer using the codes given below:

(a) 1 and 2 only (b) 2 and 3 only

(c) 1 and 3 only (d) 1, 2, and 3

Answer - Source CST 2 Marker, Page No. 266 and 452, 454 of CST Indian History: Option B. Ambedkar championed the cause of down trodden especially the Harijan and founded Indian Labour Party and Scheduled Castes Federation.

Page 454: B.R.Ambedkar : Founded Siddhartha College In 1918, wrote Evolution of Finance in British India in Columbia; in 1923, The Problems of Ruppees; in 1937, Annihilation of Caste; in 1924, founded Depressed Class Institute/ Federation; in 1927, founded Samaj Samta Singhia; and also founded Indian Labour Party and People's Education Society.

Page 452 of CST Indian History: Peasants' and Workers' Party :1925-26 by Muzzaffar Ahmed, Nazrul Islam, and PC Joshi and it was functioning as a left wing within Congress.

11. Mahatma Gandhi undertook fast unto death in 1932, mainly because

(a) Round Table Conference failed to satisfy Indian political aspirations

(b) Congress and Muslim League had differences of opinion

(c) Ramsay Macdonald announced the Communal Award

(d) None of the statements (a), (b) and (c) given above is correct in this context

Answer - Source CST Indian History, Page No. 391:

Option C. On 10th August, 1932, Ramsay MacDonald announced separate declaration for depressed classes. Against this Gandhi went on fast on 20th September.

12. With reference to Ryotwari Settlement, consider the following statements:

1. The rent was paid directly by the peasants to the Government.

2. The Government gave Pattas to the Ryots.

3. The lands were surveyed and assessed before being taxed. Which of the statements given above is/are correct?

(a) 1 only (b) 1 and 2 only

(c) 1, 2 and 3 (d) None

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Answer – Source CST Indian History, Page No. 347: Option C. Ryotwari System: Due to prevent some problems raised during the Permanent Settlement, this modified system was introduced in the Madras and Bombay presidencies.

In this system there was no intermediary zamindars like that in Permanent Settlement and British negotiated directly with the ryots who were also the owners of the land.

Indian Culture

- The Nagara, the Dravida and the Vesara are the
 - three main racial groups of the Indian subcontinent
 - three main linguistic divisions into which the languages of India can be classified
 - three main styles of Indian temple architecture
 - three main musical Gharanas prevalent in India

Answer – Source CST Indian History, Page No. 467-470: Option C. Features of Nagara Style :

- It spreads from Himalayas to Vindhya; Ferguson called it Aryavarta Style;
- Single projection in each face;
- Triratha; and
- Shikara in curvilinear shape.

Features of Dravida Style :

- Vimana : representing the sanctum with its tall pyramidal tower
- Gopuram : Lofty Gateways leading to temple enclosure
- Rathas : Square and Rectangular
- Mandapa : Complex consisted of sanctum with its pyramidal tower and a pillared hall and mandapa with flat roof.

Features of Vesar Chalukya:

- Vimana and Mandapa is joined by an antarala
- Unlike, Dravida, it does not have sanctum cella enclosed within a covered ambulatory
- Mandapas wider in dimension than the Vimana

2. With reference to Dhrupad, one of the major traditions of India that has been kept alive for centuries, which of the following statements are correct?

- Dhrupad originated and developed in the Rajput kingdoms during the Mughal period.
- Dhrupad is primarily a devotional and spiritual music.
- Dhrupad Alap uses Sanskrit syllables from Mantras.

Select the correct answer using the codes given below:

- 1 and 2 only
- 2 and 3 only
- 1, 2 and 3
- None of the above is correct

Answer - Option B.

Raja Mana Singh (A.D.

1486-1517) of Gwalior played a distinguished part in the growth and perfection of the Dhrupad, which represented the acme of classical art in Hindustani. Dhrupad, which evidently had its origin in the old Prabandha, had come into vogue even earlier at the time of 'Alau'd-din Khalji, when Gopala Nayaka and Amir Khusraw flourished. Amir Khusraw introduced some new ragas, new instruments and new compositions such as Qawwali, the Muslim counterpart of the Hindu Bhajana. Like Dhrupad, there arose in Mathura region another form, Vori or Dhamar (so-called after its tala), singing of Krishna's sports. A lighter and freer composition was Khyal, of which the greatest composers were Sadaran-

ga and Adaranga of the court of one of the last Mughal rulers, Muhammad Shah.

3. How do you distinguish between Kuchipudi and Bharatanatyam dances?

- Dancers occasionally speaking dialogues is found in Kuchipudi dance but not in Bharatanatyam.
- Dancing on the brass plate by keeping the feet on its edges is a feature of Bharatanatyam but Kuchipudi dance does not have such a form of movements.

Which of the statements given above is/are correct?

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

Answer - Option A. Bharatanatyam is a traditional dance form of Tamil Nadu, while Kuchipudi is traditional Indian classical dance form originating from Andhra Pradesh. Bharatanatyam stands for the diverse reconstructions of the ancient art of Kathir which were revived in the 19th and 20th century. Kuchipudi as a classical dance form achieved excellence during the rule of Abdul Hassan Tanesha of the Golconda Dynasty. Bharatanatyam is precisely known for its elegance, grace, softness, clarity, and sculptured poses. On the other hand most of the poses in Kuchipudi are brisk, flat-footed, dazzling, and overall curved having more rounded poses. Bharatanatyam, by its inception is taken to be a fire dance. On the other hand the Kuchipudi exposition includes 'tillana' and 'jatiswaram' both of which reflect the longing of the disciple to become one with the ultimate and the omnipotent God.

Geography

1. A person stood alone in a desert on a dark night and wanted to reach his village which was situated 5 km east of the point where he was standing. He had no instruments to find the direction but he located the polestar. The most convenient way now to reach his village is to walk in the

- direction facing the polestar
- direction opposite to the polestar
- direction keeping the polestar to his left
- direction keeping the polestar to his right

Answer – Option C: Two bright constellations occupy opposite sides of the pole star—the Big Dipper and Cassiopeia. As the celestial sphere rotates (or appears to rotate), these constellations also march in circles around the pole.

2. Consider the following statements:

- The duration of the monsoon decreases from southern India to northern India.
- The amount of annual rainfall in the northern plains of India decreases from east to west.

Which of the statements given above is/are correct?

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

Answer – Source CST Geography, Page No. 411: Option C.

The southwestern monsoon strikes the Western Ghats and brings copious rain in the windward slope where as the eastern side of the Western Ghats remain in the rain shadow region devoid of rainfall.

► The Bay of Bengal branch of the monsoon bifurcates when it encounters the mighty Himalayas. One branch enters the Meghalaya region and the funnel shaped orientation of the mountains in that region brings heavy rainfall. The other

branch runs down the Ganga plains and brings rainfall in that region. The rainfall decreases as the monsoon winds move from east to west.

3. Which one of the following is the characteristic climate of the Tropical Savannah Region?

- Rainfall throughout the year
- Rainfall in winter only
- An extremely short dry season
- A definite dry and wet season

Answer - Source CST Geography, Page No. 192: Option D.

SAVANNA REGION: Location: The Savanna regions are located on either side of the Equatorial Forest Region. They lie between 10° - 20° latitudes in both the hemispheres. The biggest area of Savanna is found in Africa and Sudan. Savanna region is also called Sudan-type region. The Savannas are the grasslands of the tropical zones and are also called **Tropical Grasslands**.

Climate: It is generally hot & the average temperature is about 37° C and is generally dry. Diurnal ranges are generally higher. Rainfall is seasonal and is received mostly in summers. It is a region **Trade-Wind Belt** and the trade wind winds are **Dry Belts**. Average rainfall is between 25-150 cms.

4. Consider the following agricultural practices:

- Contour bunding
- Relay cropping
- Zero tillage

In the context of global climate change, which of the above helps/help in carbon sequestration/storage in the soil?

- 1 and 2 only
- 3 only
- 1, 2 and 3
- None of them

Answer - Option C. Any method which helps the soil in maintaining more organic matter, so that it may work as an effective carbon sink would be helpful in carbon storage. **Counter Bunding**, consists of building earthen embankments across the slope of the land, are carried out in many parts in India- notably in Maharashtra, Gujarat, Tamilnadu, Karnataka and Andhra Pradesh.

Relay cropping consists of interseeding the second crop into the first crop well before it is harvested. Relay cropping enables farmers to double crop their land, eliminate a time management bottleneck, and protect the environment by reducing soil erosion and impacts of manure and/or chemical fertilizer.

Zero tillage also known as no-till or direct seeding, benefits include reduced soil salinity, which is better for plant growth, and conservation of natural soil structure. The soil stays spongy and doesn't become compacted, which is bad for plant growth.

5. Consider the following specific stages of demographic transition associated with economic development:

- Low birthrate with low death rate
- High birthrate with high death rate
- High birthrate with low death rate

Select the correct order of the above stages using the codes given below:

- 1, 2, 3
- 2, 1, 3
- 2, 3, 1
- 3, 2, 1

Answer - Source CST July 2011, Page No. 85, Col 2: Option C.

Demographers refer to these changes from stable population with high fertility and mortality to a new stability in population due to low fertility and mortality as de-

mographic transition. Demographic transition occurs in four phases; of these the first three phases are characterized by population growth. In the first phase there is fall in death rate and improvement in longevity; this leads to population growth. In the second phase there is a fall in birth rate but fall is less steep than fall in death rates and consequently there is population growth. In the third phase death rates plateau and replacement level of fertility is attained but the population growth continues because of the large size of population in reproductive age group. The fourth phase is characterized by fall in birth rate to below replacement level and reduction in the proportion of the population in reproductive age group; as a result of these changes population growth ceases and population stabilizes (most of the developed nations).

6. Which of the following is the chief characteristic of 'mixed farming'?

- Cultivation of both cash crops and food crops
- Cultivation of two or more crops in the same field
- Rearing of animals and cultivation of crops together
- None of the above

Answer - Source CST Geography, Page No. 202-203: Option C. Mixed Farming (Commercial livestock and crop farming)

- ▶ Integration of crops and livestock.
- ▶ Extensive use of agricultural inputs (fertilizers, manures, techniques etc.)
- ▶ Wide variety of crops are grown.
- ▶ In Europe, N. America (to the immediate west of Appalachians), South Africa, North East Argentina, S. E. Australia and New Zealand.

7. A particular State in India has the following characteristics:

- It is located on the same latitude which passes through northern Rajasthan.
- It has over 80% of its area under forest cover.
- Over 12% of forest cover constitutes Protected Area Network in this State.

Which one among the following States has all the above characteristics?

- Arunachal Pradesh
- Assam
- Himachal Pradesh
- Uttarakhand

Answer - Option A

8. Consider the following crops of India:

- Cowpea
- Green gram
- Pigeon pea

Which of the above is/are used as pulse, fodder and green manure?

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

Answer - Option D. Crops grown for the purpose of restoring or increasing the organic matter content in the soil are called Green manure crops. Green gram is sometimes specifically grown for hay, green manure or as a cover crop.

9. Consider the following factors:

- Rotation of the Earth
- Air pressure and wind
- Density of ocean water
- Revolution of the Earth

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Which of the above factors influence the ocean currents?

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

Answer - Source CST Geography, Page No. 33-34: Option B. Rotation of the Earth: The earth rotates once in 24 hours and this effects in - (i) Day and Night, (ii) A difference of 1 hour between two meridians 15° apart, (iii) The deflection of winds and ocean currents, (iv) The daily rising and falling of the tides.

Revolution of the Earth: The earth takes $365\frac{1}{4}$ days to revolve once round the sun. The revolution of the earth and the inclination of its axis result in... (i) changes in the altitude of the mid-day sun at different times of the year, (ii) varying lengths of day and night at different times of the year, (iii) the four seasons.

10. Consider the following crops of India:

1. Groundnut 2. Sesamum
3. Pearl millet

Which of the above is/are predominantly rainfed crop/crops?

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

Answer - Option D: Rainfed agriculture is pivotal to the economy and food security of India. About 60% of the total cultivated area is rainfed, supporting 40% of India's food demand of 1.2 billion people. Moreover, rainfed agriculture also supports 60% of livestock population. Likewise, coarse cereals (87.5%), pulses (87.5%), oilseeds (77%), rice (48%) and cotton (65.7%) are predominantly grown in rainfed areas.

11. When you travel in Himalayas, you will see the following:

1. Deep gorges 2. U-turn river courses
3. Parallel mountain ranges
4. Steep gradients causing land-sliding

Which of the above can be said to be the evidences for Himalayas being young fold mountains?

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

Answer - Source CST Geography, Page No. 72: Option D. Folded mountains are formed due to folding of crustal rocks by compressive forces generated by endogenetic forces coming from within the earth. Its **features** are: (a) They are found in great height; (b) Highest and extensive; (c) The width is less than height; (d) Arrow-like shape; (e) Faults are common cause of mountain upward and faults shrinking off; (f) Fossils are being found; (g) Highest peaks are found in folded mountains; (h) Folded mountains are the youngest on the surface of earth; (i) Basically found in the form of sedimentary rocks; (j) Have been formed in long and shallow seas (Geo syncline); (k) Are generally formed in arc shape having one side concave slope and the other convex slope; (l) Are found along the margins of the continents facing ocean.

Young Fold Mountains: Himalayas, Alps, Rockies, Andes.

12. Normally, the temperature decreases with the increase in height from the Earth's surface, because

1. the atmosphere can be heated upwards only from the Earth's surface
2. there is more moisture in the upper atmosphere

3. the air is less dense in the upper atmosphere

Select the correct answer using the codes given below:

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

Answer - Option C: The layer closest to the earth's surface is the troposphere and it is a very important layer to meteorologists because it is the layer that contains all of our weather. Sunlight warms the earth's surface and then the surface warms the air above it. As one moves away from the earth's surface (the heat source), the air becomes cooler. This is why temperature usually decreases with height in the troposphere. Sometimes the air temperature may increase with height in a narrow layer. This is referred to as a temperature inversion.

13. The acidification of oceans is increasing. Why is this phenomenon a cause of concern?

1. The growth and survival of calcareous phytoplankton will be adversely affected.
2. The growth and survival of coral reefs will be adversely affected.
3. The survival of some animals that have phytoplanktonic larvae will be adversely affected.
4. The cloud seeding and formation of clouds will be adversely affected.

Which of the statements

given above is /are correct?

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

Answer - Option D: The ocean absorbs CO₂ from human activities at a rate of 22 million tons per day, thus removing 30% of CO₂ emitted to the atmosphere each year and mitigating the harmful impact of this "greenhouse gas" on our climate.

Biodiversity

1. Which one of the following groups of animals belongs to the category of endangered species?

- (a) Great Indian Bustard, Musk Deer, Red Panda and Asiatic Wild Ass
(b) Kashmir Stag, Cheetal, Blue Bull and Great Indian Bustard
(c) Snow Leopard, Swamp Deer, Rhesus Monkey and Saras (Crane)
(d) Lion-tailed Macaque, Blue Bull, Hanuman Langur and Cheetal

Answer - Source CST December 2011, Page No. 66: Option A. Option A: The Great Indian Bustard (*Ardeotis nigripes*) has been uplisted to Critically Endangered, the highest level of threat. In an ever more crowded world, species that need lots of space, such as the Great Indian Bustard, are losing out. At present GIBs are found only in scattered populations across Rajasthan, Maharashtra, Madhya Pradesh, Gujarat, Uttar Pradesh, Andhra Pradesh and Karnataka. This year's update brings the total number of threatened bird species to 1,253, an alarming 13 per cent of the world total. This year's update shows 144 threatened bird species from India. Apart from GIB, some other species are:

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all Gyps species of vultures (Critically Endangered), Forest Owllet (Critically Endangered), Lesser Florican (Endangered), Narcondam Hornbill (Endangered), Sarus Crane (Vulnerable), Yellow-throated Bulbul (Vulnerable), Lesser Flamingo (Near Threatened) and Painted Stork (Near Threatened). But the question is not very clear as every option has endangered animal.

2. The Millennium Ecosystem Assessment describes the following major categories of ecosystem services-provisioning, supporting, regulating, preserving, and cultural. Which one of the following is supporting service?

- Production of food and water
- Control of climate and disease
- Nutrient cycling and crop pollination
- Maintenance of diversity

Answer – Source CST February 2012, Page No. 32: Option C. As an ecosystem they are useful for nutrient recovery and cycling, releasing excess nitrogen, deactivating phosphates, removing toxins, chemicals and heavy metals through absorption by plants and also in the treatment of waste water.

3. What is the difference between the antelopes Oryx and Chiru?

- Oryx is adapted to live in hot and arid areas whereas Chiru is adapted to live in steppes and semi-desert areas of cold high mountains
- Oryx is poached for its antlers whereas Chiru is poached for its musk
- Oryx exists in western India only whereas Chiru exists in north-east India only
- None of the statements (a), (b) and (c) given above is correct

Answer - Option A. Oryx is one of four large antelope species of the genus Oryx. Three of the species are native to arid parts of Africa, with a fourth native to the Arabian Peninsula. Their pelage is pale with contrasting dark markings in the face and on the legs, and their long horns are almost straight. All Oryx species prefer near-desert conditions and can survive without water for long periods. They live in herds of up to 600 animals. Newborn calves are able to run with the herd immediately after birth. Both males and females possess permanent horns. Chiru or Tibetan antelope is a medium sized bovid native to the Tibetan plateau.

4. Which of the following can be threats to the biodiversity of a geographical area?

- Global warming
- Fragmentation of habitat
- Invasion of alien species
- Promotion of vegetarianism

Select the correct answer using the codes given below:

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

Answer – Source CST December 2011, Page No. 73: Option A. Noting that India's rich biodiversity is threatened by increased population pressures and over-utilisation of resources along with development that is largely inconsistent with conservation objectives, the Bank said these threats, coupled with the country's high incidence of poverty, have accelerated the speed of degradation.

The growing population, industrialization and urbanization and excessive use of chemical fertilizers and pesticides

has completely perturbed the existing ecological balance of the country. Habitat destruction is identified as the main threat to biodiversity. The major impact of developmental activities involves diversion of forest land. Since the enactment of Forest (Conservation) Act in 1980, 11.40 lakh hectares of forest area, for about 14,997 development projects, has been approved for diversion. Against this diversion, compensatory afforestation has been stipulated for over 12.10 lakh hectares of land.

The loss of diversity is not only an ethical tragedy but also a great social, economic and cultural one.

5. Consider the following:

- Black-necked crane
- Cheetah
- Flying squirrel
- Snow leopard

Which of the above are naturally found in India?

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

Answer - Source CST December 2011, Page No. 34, 78 and February 2012 and Page No. 60. Option B.

Page 34: December 2011: It supports CITES and IUCN Redlisted Snow Leopard and is a refuge for many species like Snow Cock, Chukor, Black Ring Stilt, Kestrel, Golden Eagle, Chough, Red Fox, Himalayan Ibex, and Blue Sheep.

Page 78: December 2011: India, China and Bhutan have agreed to join hands to save from extinction the black-necked crane, the state bird of Jammu and Kashmir. The black-necked crane, now a highly endangered species, was discovered in Northeastern Tibet in 1876.

Page 60: February 2012: A Group of Experts has submitted a detailed assessment of the potential for reintroducing the cheetah in India, recommending three potential sites for reintroduction. The cheetah, which is flagship specie of the deciduous dry land/grassland ecosystem, became extinct in India in the 1960s.

6. What would happen if phytoplankton of an ocean is completely destroyed for some reason?

- The ocean as a carbon sink would be adversely affected.
- The food chains in the ocean would be adversely affected.
- The density of ocean water would drastically decrease.

Select the correct answer using the codes given below:

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

Answer - Source CST Science and Technology, Page No. 385: Option A.

An algal bloom is a rapid increase or accumulation in the population of algae in an aquatic system. Algal blooms may occur in freshwater as well as marine environments. Typically, only one or a small number of phytoplankton species are involved, and some blooms may be recognized by discoloration of the water resulting from the high density of pigmented cells. Harmful algal blooms (HABs), are algal bloom events involving toxic or otherwise harmful phytoplankton such as dinoflagellates of the genus Alexandrium and Karenia. Such blooms often take on a red or brown hue and are known colloquially as red tides. A harmful algal bloom (HAB) causes negative im-

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pacts to other organisms via production of natural toxins, mechanical damage to other organisms, or by other means. HABs are often associated with large-scale marine mortality events and have been associated with various types of shellfish poisonings.

7. How does National Biodiversity Authority (NBA) help in protecting the Indian agriculture?

1. NBA checks the biopiracy and protects the indigenous and traditional genetic resources.
2. NBA directly monitors and supervises the scientific research on genetic modification of crop plants.
3. Application for Intellectual Property Rights related to genetic/biological resources cannot be made without the approval of NBA.

Which of the statements given above is / are correct?

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

Answer - Source CST December 2011, Page No. 97. Option C. National Biodiversity Authority (NBA): At the national level, NBA has been established by Government of India in October, 2003 at Chennai, Tamil Nadu under the Section 8 of the Act for pursuing the implementation of the Biological Diversity Act, 2002 (BD Act) and Biological Diversity Rules, 2004. NBA consists of a Chairperson, 10 Ex-officio and 5 Non official members. It advises the State Governments in the selection of areas of importance as biodiversity heritage sites and measures for the management of such sites. It has constituted expert committees to perform functions such as laying down the procedure and guidelines to govern the activities such as Access and Benefit Sharing (ABS), Prior Informed Consent (PIC), Mutually Agreed Terms (MAT), Intellectual Property Rights (IPR), list of normally traded commodities, establishment of heritage sites and their management, national designated repositories and safeguarding of traditional knowledge respecting the Article 8 (j) of the CBD.

8. Consider the following areas:

1. Bandipur
2. Bhitarkanika
3. Manas
4. Sunderbans

Which of the above are Tiger Reserves?

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

Answer - Source CST December 2011, Page No. 87: Option B. Refer a detailed Box of all 41 Tiger Projects in India. Bandhipur, Manas, and Sunderbans are Tiger Reserves while Bhitarkanika is a Wildlife Sanctuary and not a declared Tiger reserve.

9. In which one among the following categories of protected areas in India are local people not allowed to collect and use the biomass?

- (a) Biosphere Reserves (b) National Parks
(c) Wetlands declared under Ramsar Convention
(d) Wildlife Sanctuaries

Answer - Source CST December 2011, Page No. 64: Option B. The National Park is declared for the purpose of protecting, propagating or developing wildlife or its environment, like that of a Sanctuary. The difference between a Sanctuary and a National Park mainly lies in the vesting of rights of people living inside. Unlike a Sanctuary, where certain rights can be allowed, in a National Park, no rights

are allowed. No grazing of any livestock shall also be permitted inside a National Park while in a Sanctuary, the Chief Wildlife Warden may regulate, control or prohibit it.

10. With reference to the wetlands of India, consider the following statements:

1. The country's total geographical area under the category of wetlands is recorded more in Gujarat as compared to other States.
2. In India, the total geographical area of coastal wetlands larger than that of inland wetlands.

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

Answer- Source CST February 2012, Page No. 31: Option A. As much as 17.56 per cent of the state's geographic area - this comes to 34.74 lakh hectares - has been shown as wetland in the National Wetland Atlas. Gujarat is followed by Andhra Pradesh, Uttar Pradesh, West Bengal and Maharashtra in that order. Even the coastal Union territories of Diu and Daman have upto 18.46 per cent of their total geographical area as wetland, next only to Lakshadweep whose 96.12 per cent of land area is wetland.

(The total wetland area in Lakshadweep, and Diu and Daman, respectively, are smaller in size than Gujarat's 34.74 hectares). A total of 15.26 million hectares have been identified as wetland in India. **The Ramsar list indicates that mostly the sites are situated in inland area and not the coastal area.** Inland-Natural wetlands accounted for around 43.4 per cent of the total area, while Coastal - Natural wetlands account for 24.3 per cent.

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Science and Technology

1. To meet its rapidly growing energy demand, some opine that India should pursue research and development on thorium as the future fuel of nuclear energy. In this context, what advantage does thorium hold over uranium?

1. Thorium is far more abundant in nature than uranium.
2. On the basis of per unit mass of mined mineral, thorium can generate more energy compared to natural uranium.
3. Thorium produces less harmful waste compared to uranium.

Which of the statements given above is/are correct?

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

Answer - Option D. All the options are correct. Thorium is almost 4 times more abundant in nature than uranium. Thorium generates more energy compared to natural uranium and its residue doesn't support any bomb-usable material, thus it is impossible to be used as harmful material.

2. What are the reasons for the people's resistance to the introduction of Bt brinjal in India?

1. Bt brinjal has been created by inserting a gene from a soil fungus into its genome.
2. The seeds of Bt brinjal are terminator seeds and therefore, the farmers have to buy the seeds before every season

from the seed companies.

3. There is an apprehension that the consumption of Bt brinjal may have adverse impact on health.

4. There is some concern that the introduction of Bt brinjal may have adverse effect on the biodiversity.

Select the correct answer using the codes given below:

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

Answer – Source CST Science and Technology, Page No. 726-727: Option C. Both Bt. Cotton and Bt. Brinjal are genetically modified (GM) crops basically incorporate the same foreign cry1Ac gene sourced from a soil bacterium called *Bacillus thuringiensis* or Bt. GM crops are created by the unnatural insertion of foreign genes into host DNA of a plant. It leads to numerous unpredictable changes that are potentially dangerous for health.

3. Biomass gasification is considered to be one of the sustainable solutions to the power crisis in India. In this context, which of the following statements is/are correct?

1. Coconut shells, groundnut shells, and rice husk can be used in biomass gasification.
2. The combustible gases generated from biomass gasification consist of hydrogen and carbon dioxide only.
3. The combustible gases generated from biomass gasification can be used for direct heat generation but not in internal combustion engines.

Select the correct answer using the codes given below:

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

Answer - Source CST- Science and Technology, Page No. 298: Option A.

The availability of biomass in India is estimated at about 540 million tonnes per year

covering residues from agriculture, agroindustrial, forestry, and plantations. Principal agricultural residues include rice husk, rice straw, bagasse, sugar cane tops and leaves, trash, groundnut shells, cotton stalks, mustard stalks, etc.

4. Graphene is frequently in news recently. What is its importance?

1. It is a two-dimensional material and has good electrical conductivity.
2. It is one of the thinnest but strongest materials tested so far.
3. It is entirely made of silicon and has high optical transparency.
4. It can be used as 'conducting electrodes' required for touch screens, LCDs and organic LEDs.

Which of the statements given above are correct?

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

Answer - Source CST Science and Technology, Page No. 735: Option C. Graphene is a form of carbon. As a material it is completely new - not only the thinnest ever but also the strongest.

When mixed into plastics, graphene can turn them into conductors of electricity while making them more heat resistant and mechanically robust.

However, with graphene, physicists can now study a new class of two-dimensional materials with unique properties.

Physics

1. Consider the following statements:

If there were no phenomenon of capillarity

1. it would be difficult to use a kerosene lamp
2. one would not be able to use a straw to consume a soft drink
3. the blotting paper would fail to function
4. the big trees that we see around would not have grown on the Earth

Which of the statements given above are correct?

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

Answer – Source CST General Science, Page No. 198: Option B. Capillarity:

A clean glass tube having a small inside diameter when dipped in water results in the rise of water level in the tube compared to the actual water level. This is because the water molecules are attracted to glass more than to each other. Similarly if the same tube is dipped in mercury, there would be fall in the level of mercury in the tube because of lesser attraction between the mercury and the glass molecules.

▶ The force of attraction between unlike molecules is called **adhesion** and that between like molecules **cohesion**.

▶ The fine pores of a blotting paper act as tiny capillary tubes.

▶ The melted wax of a candle is drawn up into the wick by capillary action.

▶ Because bricks are porous and therefore affected by sub-soil water through the capillary action. In order to reduce this effect, a layer of non-porous material, such as slate, is necessary in its foundation.

2. Which of the following is /are cited by the scientists as evidence/ evidences for the continued expansion of universe?

1. Detection of microwaves in space
2. Observation of redshift phenomenon in space
3. Movement of asteroids in space
4. Occurrence of supernova explosions in space

Select the correct answer using the codes given below:

- (a) 1 and 2 (b) 2 only
(c) 1, 3, and 4 (d) None of the above can be cited as evidence

Answer – Option A

3. Electrically charged particles from space travelling at speeds of several hundred km/sec can severely harm living beings if they reach the surface of the Earth. What prevents them from reaching the surface of the Earth?

- (a) The Earth's magnetic field diverts them towards its poles
- (b) Ozone layer around the Earth reflects them back to outer space
- (c) Moisture in the upper layers of atmosphere prevents them from reaching the surface of the Earth
- (d) None of the statements (a), (b) and (c) given above is correct

Answer - Source CST General Science, Page No. 267: Option A. The aurora borealis and aurora australis (northern and southern lights) in the night sky in high latitudes are

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luminescent sources. Electrons in the solar wind that sweeps out from the Sun become deflected in Earth's magnetic field and dip into the upper atmosphere near the north and south magnetic poles. The electrons then collide with atmospheric molecules, exciting the molecules' electrons and making them emit light in the sky.

Chemistry

1. What is the role of ultraviolet (UV) radiation in the water purification systems?

1. It inactivates /kills the harmful microorganisms in water.
2. It removes all the undesirable odours from the water.
3. It quickens the sedimentation of solid particles, removes turbidity, and improves the clarity of water.

Which of the statements given above is/are correct?

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

Answer - Option A. UV doesn't change the colour, taste, or odour of the water. The UV radiation inactivates/kills the harmful micro organism in water.

2. Lead, ingested or inhaled, is a health hazard. After the addition of lead to petrol has been banned, what still are the sources of lead poisoning?

1. Smelting units
2. Pens and pencils
3. Paints
4. Hair oils and cosmetics

Select the correct answer using the codes given below:

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

Answer - Option B

3. Consider the following statements:

Chlorofluorocarbons, known as ozone-depleting substances, are used

1. in the production of plastic foams
2. in the production of tubeless tyres
3. in cleaning certain electronic components
4. as pressurizing agents in aerosol cans

Which of the statements given above is/are correct?

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

Answer - Source CST December 2011, Page No. 107: Option C. India was mainly producing and using nine of the ninety five substances controlled under the Montreal Protocol. These are CFC-11, CFC-12, CFC-113, Carbontetrachloride (CTC), Hydrochlorofluorocarbons-22 (HCFC-22), Halon-1211, Halon-1301, Methyl Chloroform and Methyl Bromide. These Ozone Depleting Substances (ODS) are used in refrigeration and air conditioning, foams, fire fighting, aerosol, fumigation and cleaning applications etc.

Biology

1. The increasing amount of carbon dioxide in the air is slowly raising the temperature of the atmosphere, because it absorbs

- (a) the water vapour of the air and retains its heat
- (b) the ultraviolet part of the solar radiation
- (c) all the solar radiations
- (d) the infrared part of the solar radiation

Answer - Option D. Carbon dioxide absorbs the infrared part of the solar radiation, thus it is slowly raising the tem-

perature of the atmosphere.

2. Which one of the following sets of elements was primarily responsible for the origin of life on the Earth?

- (a) Hydrogen, Oxygen, Sodium
- (b) Carbon, Hydrogen, Nitrogen
- (c) Oxygen, Calcium, Phosphorus
- (d) Carbon, Hydrogen, Potassium

Answer - Source CST Science and Technology, Page No.

752: Option B. It had long been the assumption that without six certain essential elements -- carbon, hydrogen, nitrogen, oxygen, phosphorus and sulfur -- life could not exist. Phosphorus is part of the chemical backbone of DNA and RNA, the structures that carry genetic instructions for life, and is considered an essential element for all living cells.

3. Other than resistance to pests, what are the prospects for which genetically engineered plants have been created?

1. To enable them to withstand drought
2. To increase the nutritive value of the produce
3. To enable them to grow and do photosynthesis in spaceships and space stations
4. To increase their shelf life

Select the correct answer using the codes given below:

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

Answer - Source CST Science and Technology, Page No.

728: Option C. Genetic material engineering allows scientist to develop such plants which are having resistance to towards diseases, pests and stress like drought or heat. It can also be used to keep vegetables fresh for long periods with increased nutritive value.

Benefits: Crops with high yield; with improved resistance to herbicides and disease along with that it is cold, drought and salinity tolerant; more advanced products and agricultural techniques; enhancement of quality of processed crop is made possible; low cost productivity; helpful in providing food security for developing countries.

4. Consider the following kinds of organisms:

1. Bat
2. Bee
3. Bird

Which of the above is/are pollinating agent/agents?

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

Answer - Option D. Bat, Bee, and Bird, all are agents of pollination. Pollination is the process by which pollen is transferred in the reproduction of plants, thereby enabling fertilization and sexual reproduction. The most common agents of pollination are flying insects (as in most flowering plants) and the wind (as in many trees and all grasses and conifers), but crawling and hopping insects, snails, bats, primates, rodents, and hummingbirds may also serve.

5. Consider the following kinds of organisms:

1. Bacteria
2. Fungi
3. Flowering plants

Some species of which of the above kinds of organisms are employed as biopesticides?

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

**Performance CST
70 plus out of 100
Expected cut-off -
50/100**

(c) 1 and 3 only (d) 1, 2, and 3

Answer – Source CST December 2011, Page No. 72, Col.1:

Option D. Bio-control agents (*Trichoderma viride*, *T. harzianum*, *T. aurioviride*, *Glocladium virens*, *Bacillus subtilis*, *Pseudomonas fluorescens*); **bio-pesticides (*Beauveria bassiana*, *Bacillus thuringiensis*)**; biofertilizers (*Rhizobium* spp., *Azotobacter chroococcum*, *Azospirillum brasilense*, *Bacillus subtilis*, fluorescent *Pseudomonas*); bio-remediation (*Pseudomonas putida*, *P. fluorescens*, *Alcligens*); industrial importance (*Aspergillus niger*, *Bacillus subtilis*).

6. With reference to 'stem cells', frequently in the news, which of the following statements is/are correct?

1. Stem cells can be derived from mammals only.
2. Stem cells can be used for screening new drugs.
3. Stem cells can be used for medical therapies.

Select the correct answer using the codes given below:

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

Answer - Source CST General Science, Page No. 463:

Option B. Mario R. Capecchi, Sir Martin J. Evans and Oliver Smithies "for their discoveries of principles for introducing specific gene modifications in mice by the use of embryonic stem cells" Stem cells are biological cells found in all multi-cellular organisms that can divide (through mitosis) and differentiate into diverse specialized cell types and can self-renew to produce more stem cells. In mammals, there are two broad types of stem cells: embryonic stem cells, which are isolated from the inner cell mass of blastocysts, and adult stem cells, which are found in various tissues.

7. Government of India encourages the cultivation of 'sea buckthorn'. What is the importance of this plant?

1. It helps in controlling soil erosion and in preventing desertification.
2. It is a rich source of biodiesel.
3. It has nutritional value and is well-adapted to live in cold areas of high altitudes.
4. Its timber is of great commercial value.

Which of the statements given above is /are correct?

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

Answer - Option C. Sea Buckthorn is a medicinal plant found in the Himalayan region. It has various health promoting properties and can play a crucial role in preventing soil erosion and help nitrogen fixation in cold and desert areas.

Current Affairs

1. Recently, there has been a concern over the short supply of a group of elements called 'rare earth metals'. Why?

1. China, which is the largest producer of these elements, has imposed some restrictions on their export.
2. Other than China, Australia, Canada and Chile, these elements are not found in any country.
3. Rare earth metals are essential for the manufacture of various kinds of electronic items and there is a growing demand for these elements.

Which of the statements given above is/are correct?

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

Answer - Option C. Five rare earth materials - dysprosium, terbium, europium, neodymium, and yttrium – face potential shortages until 2015. China accounts for 95% of rare earth production. Major uses of rare earth materials are: (a) Cerium is the most abundant of the rare earth elements. Cerium is critical in the manufacture of environmental protection and pollution-control systems, from automobiles to oil refineries.

(b) Neodymium is a critical component of strong permanent magnets. Cell phones, portable CD players, computers, and most modern sound systems would not exist in their current form without using neodymium magnets.

(c) Europium offers exceptional properties of photon emission. Europium is also used in fluorescent lighting, which cuts energy use by 75% compared to incandescent lighting.

(d) Yttrium is used to improve the fuel efficiency of the engine. Another important use of yttrium is in microwave communication devices. Yttrium-Iron-Garnets (YIG) is used as resonators in frequency meters, magnetic field measurement devices, tuneable transistors, and Gunn oscillators.

2. Vultures which used to be very common in Indian countryside some years ago are rarely seen nowadays. This is attributed to

(a) the destruction of their nesting sites by new invasive species

(b) a drug used by cattle owners for treating their diseased cattle

(c) scarcity of food available to them

(d) a widespread, persistent and fatal disease among them

Answer - Option B. Vultures are on the verge of extinction in India because a banned drug, diclofenac (an anti-inflammatory drug) is still being used illegally to treat suffering cattle. The drug is used by farmers and veterinarians to ease pain in cattle. The drug was banned by the governments of India, Pakistan, and Nepal in the year 2006. Vultures eat the remains of the drugged animals and suffer kidney failure and visceral gout, which is usually fatal.

3. A team of scientists at Brookhaven National Laboratory including those from India created the heaviest anti-matter (anti-helium nucleus). What is/are the implication/ implications of the creation of anti-matter?

1. It will make mineral prospecting and oil exploration easier and cheaper.

2. It will help probe the possibility of the existence of stars and galaxies made of anti-matter.

3. It will help understand the evolution of the universe.

Select the correct answer using the codes given below:

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

Answer - Option C: The STAR collaboration at the RHIC, Brookhaven National Laboratories, smashed together extremely fast moving gold nuclei, producing conditions similar to that of the hot, early Universe. Out of these billions of collisions, trillions of charged particles and anti-particles are produced. The next heavy nucleus of anti-lithium is 2.25 times heavier and a trillion times rarer, at least theoretically.

**Performance CST
70 plus out of 100
Expected cut-off -
50/100**