"The significant problems we face can not be solved at the same level of thinking we were at when we created them." - Albert Einstein

ANALYSIS / APPROACH / SOURCE / STRATEGY: GENERAL STUDIES PRE 2013 PAPER
- TEAM VISION IAS

| Q. No. | Questions                                                                 | Section | Ans. | Level | Nature | Source                              | Source Type | Explanation                                                                                         | Motivation/Observation |
|-------|---------------------------------------------------------------------------|---------|------|-------|--------|-------------------------------------|-------------|==================================================================================|------------------------|
| 1     | Consider the following statements- The Parliamentary Committee on Public Accounts. 1. Consists of not more than 25 Members of the Lok Sabha. 2. Scrutinizes appropriation and finance accounts of the Government. 3. Examines the report of the Comptroller and Auditor General of India. Which of the statements given above is/are correct? (a) 1 only  (b) 2 and 3 only  (c) 3 only  (d) 1, 2 and 3 | Polity   | B    | E     | F      | Laxmikanth page 22.34             | EM          | Statement 1 is wrong as it consists of 22 members (15 from Lok Sabha and 7 from Rajya Sabha) | PAC has been in a lot of news for various CAG reports including 2G, coal report etc. |
| 2     | Consider the following Bhakti Saints: 1. Dadu Dayal 2. Guru Nanak 3. Tyagaraja Who among the above was/were preaching when the Lodi dynasty fell and Babur took over? (a) 1 and 3  (b) 2 only  (c) 2 and 3  (d) 1 and 2 | Art/ Culture | B    | D     | F      | NCERT ancient and Medieval India | EM          | Guru Nanak (1469 – 1539) Dadu Dayal (1544–1603) Kakarla Tyagabrahmam (1767 – 1847) Lodi dynasty fell and Babur took over: 1526 |                           |
| 3     | With reference to the food chains in ecosystems, which of the following kinds of organism is/are known as decomposer organism/organisms? 1. Virus 2. Fungi 3. Bacteria 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 | Environment | B    | D     | F      | 12th NCERT: UNIT-NINE: ECOLOGY AND ENVIRONMENT Page 392 | EM          | Most viruses need a living host organism-they are more like a parasite. Viruses reproduce by sticking their DNA into living cells and their DNA “takes over” the living cell and uses the living cells’ tools to replicate the virus’ DNA and make more viruses. Bacteria that are used in decomposition need the dead animals’ flesh for food. |                           |
| 4     | The most important fishing grounds of the world are found in the regions where (a) Warm and cold atmospheric currents meet | Geography | C    | E     | F      | Old NCERT Class VII Part II page 36 | EM          | Planktons are abundant where warm and cold currents meet. That make these areas important fishing grounds of the world. |                           |
(b) Rivers drain out large amounts of freshwater into the sea
(c) Warm and cold oceanic currents meet
(d) Continental shelf is undulating

5 Which of the following is/are unique characteristic/characteristics of equatorial forests?
1. Presence of tall, closely set trees with crowns forming a continuous canopy
2. Coexistence of a large number of species
3. Presence of numerous varieties of epiphytes
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

6 Which of the following constitute Capital Account?
1. Foreign Loans
2. Foreign Direct Investment
3. Private Remittances
4. Portfolio Investment
Select the correct answer using the codes given below:
(a) 1, 2 and 3  (b) 1, 2 and 4
(c) 2, 3 and 4   (d) 1, 3 and 4

7 Consider the following historical places:
1. Ajanta Caves
2. Lepakshi Temple
3. Sanchi Stupa
Which of the above places is/are also known for mural paintings?
(a) 1 only  (b) 1 and 2 only
(c) 1, 2 and 3  (d) None

8 With reference to the history of philosophical thought in India, consider the following statements regarding Sankhya school:
1. Sankhya does not accept the theory of rebirth or transmigration of soul.
2. Sankhya holds that it is the self-knowledge that leads to liberation and not any external influence or agent.
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

9 In the context of India, which of the following principles is/are, implied institutionally in the parliamentary

<table>
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<th>(b) Rivers drain out large amounts of freshwater into the sea</th>
<th>(c) Warm and cold oceanic currents meet</th>
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<tr>
<td>Geography</td>
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<td>NCERT: 12th Geography 12th NCERT: UNIT-NINE: ECOLOGY AND ENVIRONMENT Page 273</td>
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<tr>
<td>EM</td>
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| Which of the following is/are unique characteristic/characteristics of equatorial forests? 1. Presence of tall, closely set trees with crowns forming a continuous canopy 2. Coexistence of a large number of species 3. Presence of numerous varieties of epiphytes 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 |
| --- | --- | --- | --- |
| Geography | D | M | F |
| NCERT: 12th Geography 12th NCERT: UNIT-NINE: ECOLOGY AND ENVIRONMENT Page 273 |
| EM |

| Which of the following constitute Capital Account? 1. Foreign Loans 2. Foreign Direct Investment 3. Private Remittances 4. Portfolio Investment Select the correct answer using the codes given below: (a) 1, 2 and 3  (b) 1, 2 and 4  (c) 2, 3 and 4  (d) 1, 3 and 4 |
| --- | --- | --- | --- |
| Economy | B | M | F |
| NCERT Macro Economics Page 77 Economic Survey |
| EM |

| Consider the following historical places: 1. Ajanta Caves 2. Lepakshi Temple 3. Sanchi Stupa Which of the above places is/are also known for mural paintings? (a) 1 only  (b) 1 and 2 only  (c) 1, 2 and 3  (d) None |
| --- | --- | --- | --- |
| Art/ Culture | B | D | F |
| NIOS art and Culture Page 155 |
| RM |

| With reference to the history of philosophical thought in India, consider the following statements regarding Sankhya school: 1. Sankhya does not accept the theory of rebirth or transmigration of soul. 2. Sankhya holds that it is the self-knowledge that leads to liberation and not any external influence or agent. 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 |
| --- | --- | --- | --- |
| Art/ culture | B | D | F |
| RM |

| In the context of India, which of the following principles is/are, implied institutionally in the parliamentary |
| Polity | A | M | F |
| Laxmikanth page 3.3 |
| EM |

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government?
1. Members of the Cabinet are Members of the Parliament.
2. Ministers hold the office till they enjoy confidence in the Parliament.
3. Cabinet is headed by the Head of the State.
Select
(a) 1 and 2 only  
(b) 3 only  
(c) 2 and 3 only  
(d) 1, 2 and 3

The annual range of temperature in the interior of the continents is high as compared to coastal areas. What is/are the reason/reasons?
1. Thermal difference between land and water
2. Variation in altitude between continents and oceans
3. Presence of strong winds in the interior
4. Heavy rains in the interior as compared to coasts
Select the correct answer using the codes given below:
(a) 1 only  
(b) 1 and 2 only  
(c) 2 and 3 only  
(d) 1, 2, 3 and 4

Which of the following is/are the characteristic/characteristics of Indian coal?
1. High ash content
2. Low sulphur content
3. Low ash fusion temperature
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

Which of the following statements regarding laterite soils of India are correct?
1. They are generally red in colour.
2. They are rich in nitrogen and potash.
3. They are well-developed in Rajasthan and UP.
4. Tapioca and cashew nuts grow well on these soils.
Select the correct answer using the codes given below:
(a) 1, 2 and 3  
(b) 2, 3 and 4  
(c) 1 and 4  
(d) 2, 3 and 4 only

Consider the following statements:
1. Natural gas occurs in the Gondwana beds.
2. Mica occurs in abundance in Kodarma.
3. Dharwars are famous for petroleum.
4. Natural gas is obtained along with oil in all the oil fields but exclusive reserves have been located along the eastern coast as well as (Tamil Nadu, Orissa and Andhra Pradesh), Tripura, Rajasthan and off-shore wells in Gujarat and Maharashtra.
Select
(a) 1 and 2 only  
(b) 3 only  
(c) 2 and 3 only  
(d) 1, 2 and 3
<table>
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<td>14</td>
<td>Consider the following crops: 1. Cotton 2. Groundnut 3. Rice 4. Wheat Which of these are Kharif crops? (a) 1 and 4 (b) 2 and 3 only (c) 1, 2 and 3 (d) 2, 3 and 4</td>
<td>Geography C E F India : People and Economy page 44 EM</td>
</tr>
<tr>
<td>15</td>
<td>“Climate is extreme, rainfall is scanty and the people used to be nomadic herders.” The above statement best describes which of the following regions? (a) African Savannah (b) Central Asian Steppe (c) North American Prairie (d) Siberian Tundra</td>
<td>Geography B D F GC Leong page 148-49 EM Steppes climate is continanal with extremes of temp. Nomadic tribes like Kirghiz are found. Rainfall is expected to be light. African Savannah gets moderate rainfall.</td>
</tr>
<tr>
<td>16</td>
<td>Consider the following statements: 1. Inflation benefits the debtors. 2. Inflation benefits the bond-holders. 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</td>
<td>Economy A M F FCA Economic Survey EM For debtors, “real” interest rate goes down with inflation. Thus it benefits them. On the other hand, with inflation the yield of bonds goes down, thus a negative effect for bond-holders. Persistent high rate of inflation in the economy. Inflation indexed bonds announced recently.</td>
</tr>
<tr>
<td>17</td>
<td>Disguised unemployment generally means (a) Large number of people remain unemployed (b) Alternative employment is not available (c) Marginal productivity of labour is zero (d) Productivity of workers is low</td>
<td>Economy C M F NCERT class 11th Economy EM Disguised unemployment, means that more people are engaged in a job which can be done with less people, normally seen in agriculture where whole family is involved. It means extra people can be removed without affecting the productivity, i.e. their marginal productivity is zero.</td>
</tr>
<tr>
<td>18</td>
<td>Consider the following statements: 1. The Council of Ministers in the Centre shall be collectively responsible to the Parliament. 2. The Union Ministers shall hold the office during the pleasure of the President of India. 3. The Prime Minister shall communicate to the President about the proposals for legislation. Which of the statements given above are correct? (a) 1 only (b) 2 and 3 only (c) 1 and 3 only (d) 1, 2 and 3</td>
<td>Polity B M F Laxmikanth page 20.4 EM statement 2 is from article 75 statement 3 is from article 78 statement 1 is from article 75 - where it is collectively responsible to the “House of People” (Lok Sabha). Parliament means both Rajya Sabha and Lok Sabha. So answer should be (b)</td>
</tr>
<tr>
<td>19</td>
<td>Consider the following statements: 1. National Development Council is an organ of the Planning Commission. 2. The Economic and Social Planning is kept in the Concurrent List in the Constitution of India. Which of these statements is/are correct? (a) 1 and 2 (b) 2 only (c) 2 and 3 (d) None</td>
<td>Polity B M F Statement 1 - Laxmikanth page 45.1 Statement 2 - Laxmikanth page 45.1 Statement 3 - Laxmikanth page 45.1 EM NDC is listed as an advisory body to Planning commission. Moreover the plans made by Planning commission are placed before NDC for its acceptance. So statement 1 is wrong. XII five year plan was approved in December meeting of NDC</td>
</tr>
</tbody>
</table>
3. The Constitution of India prescribes that Panchayats should be assigned the task of preparation of plans for economic development and social justice. 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

Consider the following statements:
1. The Chairman and the Deputy Chairman of the Rajya Sabha are not the members of that House.  
2. While the nominated members of the two Houses of the Parliament have no voting right in the presidential election, they have the right to vote in the election of the Vice President. 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

With reference to National Legal Services Authority consider the following statements:  
1. Its objective is to provide free and competent legal services to the weaker section of the society on the basis of equal opportunity.  
2. It issues guidelines for the State Legal Services Authorities to implement the legal programmes and schemes throughout the country. 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

During a thunderstorm, the thunder in the skies is produced by the 
1. Meeting of cumulonimbus clouds in the sky.  
2. Lightning that separates the nimbus clouds.  
3. Violent upward movement of air and water particles. Select the correct answer using the codes given below: (a) 1 only (b) 2 and 3 (c) 1 and 3 (d) None of the above produces the thunder
### Consider the following pairs:

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<th>Tribe</th>
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<tr>
<td>Limboo (Limbu)</td>
<td>Sikkim</td>
</tr>
<tr>
<td>Karbi</td>
<td>Himachal Pradesh</td>
</tr>
<tr>
<td>Dongaria Kondh</td>
<td>Odisha</td>
</tr>
<tr>
<td>Bonda</td>
<td>Tamil Nadu</td>
</tr>
</tbody>
</table>

Which of the above pairs are correctly matched?

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

### Consider the following liquid assets:

1. Demand deposits with the banks
2. Time deposits with the banks
3. Savings deposits with the banks
4. Currency

The correct sequence of these assets in the decreasing order of liquidity is:

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

### In the context of Indian economy, 'Open Market Operations' refers to:

(a) Borrowing by scheduled banks from the RBI   
(b) Lending by commercial banks to industry and trade   
(c) Purchase and sale of government securities by the RBI   
(d) None of the above

### Priority Sector Lending by banks in Indian constitutes the lending to:

(a) Agriculture   
(b) Micro and small enterprises   
(c) Weaker sections   
(d) All of the above

---

Dongaria Kondh was quite in news in 2010-12. Bonda in news Bonda youths migrating in search of jobs, says study | The Hindu

Despite the fact that Odisha government has been spending huge funds for development of ‘Bonda’ – a primitive tribe – in Malkangiri district for the past three decades, Bonda youths are now leaving hills in search of jobs in States like Andhra Pradesh and Tamil Nadu.

Liquidity of currency is highest. Next will come demand liabilities, as they have to be cleared when demanded. Next savings and least liquidity will be of time deposits.

The repo and reverse repo rates are used when RBI purchase or sale the government securities. This route is known as Open Market Operations.

Banks have to lend minimum of 40% to priority sector which includes all of the given sectors.

Recently issued guidelines by RBI that foreign banks will also have to follow the priority sector lending targets.
27 Which one among the following industries is the maximum consumer of water in India?
(a) Engineers  (b) Paper and pulp  (c) Textiles  (d) Thermal power

Geography  D  D  FCA


Of the total water use by the industry, thermal power plants are the biggest users of water and account for 88% of the total industrial water use. They are followed by engineering (5.05%) pulp & paper (2.76%) and textiles (2.07%) industries.

National Water Policy in draft form. Water efficiency as a main concern in it, including industry use.

28 To obtain full benefits of demographic dividend, what should India do?
(a) Promoting skill development  (b) Introducing more social security schemes  (c) Reducing infant mortality rate  (d) Privatization of higher education

Economy  A  E  FCA

Economic Survey


RM

Of the total water use by the industry, thermal power plants are the biggest users of water and account for 88% of the total industrial water use. They are followed by engineering (5.05%) pulp & paper (2.76%) and textiles (2.07%) industries.

New chapter on demographic dividend added in Economic Survey

29 In the context of cultural history of India, a pose in dance and dramatics called 'Tribhanga' has been a favourite of Indian artists from ancient times till today. Which one of the following statements best describes this pose?
(a) One leg is bent and the body is slightly but oppositely curved at waist and neck  
(b) Facial expressions, hand gestures and make-up are combined to symbolize certain epic or historic characters  
(c) Movements of body, face and hands are used to express oneself or to tell a story  
(d) A little smile, slightly curved waist and certain hand gestures are emphasized to express the feelings of love or eroticism

Art/ Culture  A  M  U

http://en.wikipedia.org/wiki/Tribhanga

RR

Tribhanga, literally meaning three parts break, consists of three bends in the body; at the neck, waist and knee, hence the body is oppositely curved at waist and neck which gives it a gentle "S" shape.

http://www.thehindu.com/features/metropolis/rock-of-eternity/article4340161.ece

30 Annie Besant was
1. Responsible for starting the Home Rule Movement  
2. The founder of the Theosophical Society  
3. Once the President of the Indian National Congress

Select the correct statement/statements using the codes given below. 
(a) 1 only  
(b) 2 and 3 only  
(c) 1 and 3 only  
(d) 1, 2 and 3

Modern History  C  M  E  F

NCERT-Modern India spectrum modern india p-103, 382

EM

Annie Besant was the 1st women President of INC in 1917 Calcutta Session. Madam Blavatsky and Henry Steel Olcott founded Theosophical Society.

31 The Ilbert Bill controversy was related to the
(a) Imposition of certain restrictions to carry arms by the Indians  
(b) Imposition of restrictions on newspapers and magazines published in Indian languages  
(c) Removal of disqualifications imposed on the Indian magistrates with regard to the trial of the Europeans  
(d) Removal of a duty on imported cotton cloth

Modern History  C  E  F

NCERT-Modern India

EM

In AD 1883, Lord Ripon’s law member, Sir Ilbert, introduced a bill which came to be called the Ilbert Bill. It allowed Indian judges to try the cases involving the Europeans.
| 32 | A rise in general level of prices may be caused by  
1. An increase in the money supply  
2. A decrease in the aggregate level of output  
3. An increase in the effective demand  
Select the correct answer using the codes given below:  
(a) 1 only  
(b) 1 and 2 only  
(c) 2 and 3 only  
(d) 1, 2 and 3  
| Economy | D | E | F | NCERT XII-Macro Economics Page 45 | EM | It is a direct application based question. 1st statement is correct as an increase in money supply will cause inflation. 2nd and 3rd statements are obviously correct as they represent supply and demand side of products. High rate of inflation in the economy for quite some time. |
| 33 | Which one of the following groups of items is included in India’s foreign-exchange reserves?  
(a) Foreign-currency assets, Special Drawing Rights (SDRs) and loans from foreign countries  
(b) Foreign-currency assets, gold holdings of the RBI and SDRs  
(c) Foreign-currency assets, loans from the World Bank and SDRs  
(d) Foreign-currency assets, gold holdings of the RBI, and loans from the World Bank  
| Economy | B | E | F | Economic Survey Para 6.24 | EM | India’s foreign exchange reserves comprise foreign currency assets (FCA), gold, special drawing rights (SDRs) and reserve tranche position (RTF) in the International Monetary Fund (IMF). Concerns for India’s balance of payment and forex reserves as current account deficit has risen to very high levels. |
| 34 | Which one of the following is likely to be the most inflationary in its effect?  
(a) Repayment of public debt  
(b) Borrowing from the public to finance a budget deficit  
(c) Borrowings from banks to finance a budget deficit  
(d) Creating new money to finance a budget deficit  
| Economy | D | M | F | NCERT XII-Macro Economics Page 46(i) | EM | b and c option will lead to a decrease in the money supply in market. Between a and d, d will have more inflationary effect than a, as it will lead to an increase in total money supply in the market. Once again, high inflation rate in the economy. |
| 35 | Supply of money remaining the same when there is an increase in demand for money, there will be  
(a) a fall in the level of prices  
(b) an increase in the rate of interest  
(c) a decrease in the rate of interest  
(d) an increase in the level of income and employment  
| Economy | B | E | F | NCERT XII-Macro Economics Page 46(i) | EM | Direct application based question. If the demand increase when the supply is same, it will lead to an increase in prices or in this case rate of interest to be charged. |
| 36 | Fruits stored in a cold chamber exhibit longer storage life because  
(a) exposure to sunlight is prevented  
(b) concentration of carbon dioxide in the environment is increased  
(c) rate of respiration in decreased  
(d) there is an increase in humidity  
| Science and Technology | C | M | FA | http://www.vtrstorage.com/services.html | RM | Respiration can be controlled by refrigerated storage. |
| 37 | Consider the following fauna and India:  
1. Gharial  
2. Leatherback turtle  
3. Swamp deer  
| Environment | C | M | FCA | http://indiasendangered.com/thedyinggharials/ http://indiasendangered.com/turtle-nesting-sites-facing-the- | RM | All three are endangered in India and as there is no specific list (IUCN etc.) is given so option C is correct. |
Which of the above is/are endangered?
(a) 1 and 2 only  (b) 3 only  (c) 1, 2 and 3  (d) None

38. Ball bearings are used in bicycles, cars, etc., because
(a) the actual area of contact between the wheel and axle is increased  
(b) the effective area of contact between the wheel and axle is increased  
(c) the effective area of contact between the wheel and axle is reduced  
(d) None of the above statements is correct

Science and Technology  C  M  U  


RR  
The roundness of the bearings creates less contact between the bearing that is trying to move objects and the object being moved. A reduction in contact area means less friction.

39. Consider the following statements:
1. Size of the sun at dusk
2. Colour of the sun at dawn
3. Moon being visible at dawn
4. Twinkle of stars in the sky
5. Polestar being visible in the sky

Which of the above are optical illusions?
(a) 1, 2 and 3  (b) 3, 4 and 5  (c) 1, 2 and 4  (d) 2, 3 and 5

Science and Technology  C  M  FA  

NCERT Class X: Science chapter 10

Option-1 (Size of the sun at dusk) is an optical illusion. When the sun (or moon) is high in the sky there are no objects of known size to compare the sun (or moon) to. But when the sun is low in the sky we can see far off objects near the horizon that we know are big and we imagine that the sun is even bigger. The apparent change in size is an optical illusion.

Option-2 (Colour of the sun at dawn) is an optical illusion. Light is made up of lots of colors. And out of all those colors, red is the one that travels the farthest. That means that red is the last color seen, when the sun sets. When the sun is setting, all of those colors are slower-moving, and it is no longer bright outside, because the colors are all moving at a separate pace. The other colors start disappearing, and red (being the fastest), is what is last seen.

Option-3 (Moon being visible at dawn) is NOT an optical illusion. The moon is visible somewhere in the sky at dawn during the entire half of the cycle of phases from Full Moon to just before New Moon. It is not an optical illusion.

Option-4 (Twinkle of stars in the sky) is an optical illusion. Stars continuously emit light. These light travels through various layers of earth atmosphere before they reach our eyes. Now refractive index decreases as we move from down through atmosphere. So light keeps on getting bent towards normal at each point of incidence. Practically there are infinite points of incidence as refractive index keeps changing as we move down. This happens in accordance and finally light reaches our eye. So we see the star at B but actual position of star is at A. Further atmospheric conditions keeps on changing. Hence light flux reaching our eyes keeps varying and so star appears bright at some time and it appears fade at other. So starts apparently twinkles but practically they don't.

Option-5 (Polestar being visible in the sky) is NOT an optical illusion. The sky appears to rotate around points called the celestial poles (one north pole and one south pole). These points represent the directions where the Earth's rotation axis points. Thus, for a fixed observer on Earth, a celestial pole would always be in the same
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<td>Rainbow is produced when sunlight falls on drops of rain. Which of the following physical phenomena are responsible for this?</td>
<td>1. Dispersion 2. Refraction 3. Internal reflection</td>
<td>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</td>
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</tbody>
</table>
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

Rather they hook onto another cell (e.g., a bacterium) and inject the cell with its own viral genetic code. This code then causes the cell to produce the multiple copies of the virus, essentially doing the reproduction for the virus at the cost of its own resources. The virus can’t reproduce itself without another cell to “build” its copies. Therefore we can’t grow a virus on a synthetic media.

Option 3 is also wrong because viruses enter the body from the environment or other individuals from soil to water to air via nose, mouth, or any breaks in the skin and seek a cell to infect.

Which of the following leaf modifications occur in desert areas to inhibit water loss?
1. Hard and waxy leaves
2. Tiny leaves or no leaves
3. Thorns instead of leaves

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

Plants have few or no leaves and foliage is either waxy hairy or needle-shaped to prevent water loss.

The known forces of nature can be divided into four classes, viz., gravity, electromagnetism, weak nuclear force, and strong nuclear force. With reference to them, which of the following statements is not correct?
(a) Gravity is the strongest of the four (b) Electromagnetism acts only on particles with an electric charge (c) Weak nuclear force causes radioactivity (d) Strong nuclear force holds protons and neutrons inside the nucleus of an atom

Gravity, the weakest of the four forces, is about 10^(-36) times the strength of the strong force. This weakness is easily demonstrable - on a dry day, when we rub a comb across shirt to give it static electricity and when we hold it over a piece of paper on a desk the piece of paper lifts off the desk. It takes an entire planet to keep the paper on the desk, but this force is easily overcome with everyday materials employing the electromagnetic force.

The efforts to detect the existence of Higgs boson particle have become frequent news in the recent past. What is/are the importance/importances of discovering this particle?
1. It will enable us to understand as to why elementary particles have mass.
2. It will enable us in the near future to develop the technology of transferring matter from one point to another without traversing the physical space between them.
3. It will enable us to create better fuels for nuclear missions.

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

Option 1:-
The Higgs boson has long been thought the key to resolving the mystery of the origin of mass. The Higgs boson is associated with a field, called the Higgs field, theorized to pervade the universe. As other particles travel though this field, they acquire mass much as swimmers moving through a pool get wet, the thinking goes.

Option 2 and 3 :- (Scientist are not sure about these discoveries yet so should be considered as Wrong/Doubtful)

How many new discoveries will Higgs Boson help to make for the world? Higgs Boson is not a main item that will open the way for teleportation but it will help to understand about mass, item and travel in time and space. In the close or far future, Higgs Boson may help us to create an unbelievable energy source.

Mycorrhizal biotechnology has been used in rehabilitating degraded sites because

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

All three options are correct.

Option 1:-
mycorrhiza enables the plants to
1. Resist drought and increase absorptive area
2. Tolerate extremes of pH
3. Resist disease infestation
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

http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0048946
http://link.springer.com/article/10.1007%2FBF01238788

Re-introduction of Arbuscular Mycorrhizal Fungi into agricultural soils has been shown to increase crop yields in nutrient poor soils, increase yields for agricultural plants that have large requirement for nutrients and water, and restore structure and fertility to degraded soils. The resulting soil structure allows air and water movement into the soil, encouraging root growth and distribution, allows in aggregate organic matter to be slowly decomposed by microbes and converted into plant-available nutrients, and makes the soil less susceptible to wind and water erosion.

Option-2:-
Anthropogenic deposition increases the possibility of phosphorus (P) limitation productivity in forest ecosystems. Moreover, inorganic P availability is largely controlled by soil pH and biogeochemical theory suggests that forests with acidic soils (i.e., <pH 5) are particularly vulnerable to P limitation. Results from previous studies in these systems are mixed with evidence both for and against P limitation. Shifts in mycorrhizal colonization and community structure help temperate forest ecosystems overcome an underlying P limitation by accessing mineral and organic P sources that are otherwise unavailable for direct plant uptake.

Option-3:-
Vesicular-arbuscular mycorrhizae (VAM) enhance plant growth through increased nutrient uptake, stress tolerance and disease resistance. As an integral part of the root system, they interact with other microorganisms in soil and result in increased root exudation approaching about 25% of the plant dry matter production. Roots support a multitude of microorganisms that, in concert, can have profound influence on growth and survival of the plant. VAM fungi can alter the root exudation pattern, enhance chitinolytic activity and alter photosynthetic/respiratory deficiencies. VAM-positive plants are known to exhibit varied resistance towards soil-borne and foliar pathogens. The known interactions include a number of mechanisms, such as exclusion of the pathogen, lignification of plant cell walls, changed phosphate nutrition resulting in altered exudation by roots, and formation of inhibitory low molecular weight compounds.

Who among the following constitute the National Development Council?
1. The Prime Minister
2. The Chairman, Finance Commission
3. Ministers of the Union Cabinet
4. Chief Ministers of the States
Select the correct answer using the codes given below. (a) 1, 2 and 3 only (b) 1, 3 and 4 only (c) 2 and 4 only (d) 1, 2, 3 and 4

Laxmikant page 45.1

48

49

The national income of a country for a given period is equal to the (a) total value of goods and services produced by the nationals

EM

NCERT XII-Macro Economics Page 24

EM

NNP at factor cost = National Income (NI) so A is the best option. No other option mentions Nationals.

In Dec 2012 NDC meet, Jayalalitha walked out of the meeting citing humiliation.
<table>
<thead>
<tr>
<th></th>
<th>(b) sum of total consumption and investment expenditure (c) sum of personal income of all individuals (d) money value of final goods and service produced</th>
<th></th>
<th></th>
<th></th>
<th>Economic Survey</th>
<th>Capital infusion in NABARD for financial year 12-13 to increase its Net Owned Fund (NOF) so that its lending capacity can increase</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>50</strong></td>
<td>Which of the following grants/grant direct credit assistance to rural households? 1. Regional Rural Banks 2. National Bank for Agriculture and Rural Development 3. Land Development Banks 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</td>
<td>Economy</td>
<td>C</td>
<td>M</td>
<td>FCA</td>
<td>NABARD do not provide direct assistance. It “refinance” the assistance by other institutions</td>
</tr>
<tr>
<td><strong>51</strong></td>
<td>What will follow if a Money Bill is substantially amended by the Rajya Sabha? (a) The Lok Sabha may still proceed with the Bill, accepting or not accepting the recommendations of the Rajya Sabha (b) The Lok Sabha cannot consider the Bill further (c) The Lok Sabha may send the Bill to the Rajya Sabha for reconsideration (d) The President may call a joint sitting for passing the Bill</td>
<td>Polity</td>
<td>A</td>
<td>E</td>
<td>F</td>
<td>Although Rajya Sabha can't amend or reject the money bill, but it can make recommendations, which lok sabha may or may not accept. So statement 1 is correct.</td>
</tr>
<tr>
<td><strong>52</strong></td>
<td>Which one of the following statements is correct? (a) In India, the same person cannot be appointed as Governor for two or more States at the same time. (b) The Judges of the High Court of the States in India are appointed by the Governor of the State just as the Judges of the Supreme Court are appointed by the President (c) No procedure has been laid down in the Constitution of India for the removal of a Governor from his/her post (d) In the case of a Union Territory having a legislative setup, the Chief Minister is appointed by the Lt. Governor on the basis of majority support</td>
<td>Polity</td>
<td>C</td>
<td>E</td>
<td>F</td>
<td>Statement 1 - Same person can be appointed as Governor of two or more states at the same time. Statement 2 - Judges of HC are also appointed by President Statement 4 - In case of UTs, CM is appointed by President.</td>
</tr>
<tr>
<td><strong>53</strong></td>
<td>Which one of the following pairs is correctly matched? Geographical Feature Region (a) Abyssinian Plateau Arabia (b) Atlas Mountains North-Western Africa (c) Guiana Highlands South-Western Africa (d) Okavango Basin Patagonia</td>
<td>Geography</td>
<td>B</td>
<td>D</td>
<td>F</td>
<td>Refer any standard atlas.</td>
</tr>
</tbody>
</table>
With reference to the history of Indian rock-cut architecture, consider the following statements:
1. The cases at Badami are the oldest surviving rock-cut caves in India.
2. The Barabar rock-cut cases were originally made for Ajivikas by Emperor Chandragupta Maurya.
3. At Ellora, caves were made for different faiths. Which of the statements given above is/are correct?
(a) 1 only
(b) 2 and 3 only
(c) 3 only
(d) 1, 2 and 3

Art/Culture

NIOS Art and Culture(statement 3) http://en.wikipedia.org/wiki/Barabar_caves

RR

The Barabar Caves are the oldest surviving rock-cut caves in India. These rock-cut chambers date back to the 3rd century BC, Maurya period, of Ashoka (r. 273 BC to 232 BC) and his son, Dasaratha. These caves were used by ascetics from the Ajivika sect, founded by Makkhali Gosala. Ellora is a World Heritage Site. The 12 Buddhist (caves 1–12), 17 Hindu (caves 13–29) and 5 Jain (caves 30–34) caves, built in proximity, demonstrate the religious harmony prevalent during this period of Indian history.

Recombination DNA technology (Genetic Engineering) allows genes to be transferred across different species of plants from animals to plants from microorganisms to higher organisms. 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

Science and Technology

Option:-
1(http://www.rpi.edu/dept/chem-eng/Biotech-Environ/Projects00/rdna/link3.html)
Option:-
2(http://www.rpi.edu/dept/chem-eng/Biotech-Environ/Projects00/rdna/link3.html)
Option:-
3(http://www.rpi.edu/dept/chem-eng/Biotech-Environ/Projects00/rdna/link2.html)

EM

Recombinant DNA is the general name for taking a piece of one DNA and combining it with another strand of DNA. All three options in the question are correct. Examples of these methods are:
1) The gene ‘Chitinase’ has source organism ‘Rice’ and characteristic conferred on transformed plants is Fungal resistance.
2) The gene ‘2’-5’ oligoadenylate synthetase’ has source organism ‘Rat’ and characteristic conferred on transformed plants is Virus resistance.
3) Human Proteins ‘Somatostatin’ have been synthesized from genes in bacteria and used in the treatment of Growth disorders.

The Chinese traveler Yuan Chwang (Hiuen Tsang) who visited India recorded the general conditions and culture of India at that time. In this context, which of the following statements is/are correct?
1. The roads and river-routes were completely immune from robbery.
2. As regards punishment for offences, ordeals by fire, water and poison were the instruments for determining the innocence or guilt of a person.
3. The tradesmen had to pay duties at ferries and barrier stations. 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

Ancient India

Ancient Indian History And Civilization By S. N. Sen Page 258

RR

Violent crime was rare, but the roads and river routes were exposed to brigands as Hiuen-Tsang fell victim to them more than once. Criminal law was exceptionally severe. Imprisonment for life was the ordinary penalty for violation of the statute law and conspiracy against the sovereign; prisoners were not treated as human beings, but on festive and joyous occasions they were, however, released. The punishment were of cruel nature as mutilation of the nose, ears, hands or feet being inflicted as the penalty of serious offences. Sometimes the offenders were deported to another country. Ordeals by fire, water or poison were sometimes taken recourse to establish the innocence or guilt of a person. The severity of the criminal law acted as a deterrent to violation of law.

Consider the following:
1. Star tortoise
2. Monitor lizard

Environment

http://www.thehindu.com/news/cities/Vijayawada/monitor-lizards-find-their-way-to-

FCA

RM

Spider Monkeys live in tropical climates, specifically the evergreen forests of Central and South America. They can also be found as far north as Mexico but not in India.
3. Pygmy hog
4. Spider monkey
Which of the above are naturally found in India?
(a) 1, 2 and 3 only  (b) 2 and 3 only  
(c) 1 and 4 only  (d) 1, 2, 3 and 4

5. Which of the following can be found as pollutants in the drinking water in some parts of India?
1. Arsenic
2. Sorbitol
3. Fluoride
4. Formaldehyde
5. Uranium
Select the correct answer using the codes given below.
(a) 1 and 3 only  (b) 2, 4 and 5 only  
(c) 1, 3 and 5 only  (d) 1, 2, 3, 4 and 5

58

59

60

61
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</table>
| **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 | **Consider the following statements:**  
Attorney General of India can  
1. take part in the proceedings of the Lok Sabha  
2. be a member of a committee of the Lok Sabha  
3. speak in the Lok Sabha  
4. vote in the Lok Sabha  
Which of the statements given above is/are correct?  
(a) 1 only  
(b) 2 and 4  
(c) 1, 2 and 3  
(d) 1 and 3 only | **Environment**  
C  
M  
CA | **Old NCERT Class VI page 25**  
**INDIA : PHYSICAL ENVIRONMENT**  
page 27  
**EM**  
On its path around the sun, the earth’s axis always remains inclined to one side. Because of this constant inclination in one direction, the Northern Hemisphere remains inclined towards the sun or faces the sun during one half of the year. Therefore, a larger part of this hemisphere receives sunlight. Every point in this hemisphere takes a longer time to go out of the sunlight, with the result that the days are longer. In contrast, the Southern Hemisphere is away from the sun. It, therefore, has shorter days and longer nights. During the other half of the year, the Southern Hemisphere is inclined towards the sun. Hence, it has longer days and shorter nights.

| **With reference to the usefulness of the by-products of sugar industry, which of the following statements is/are correct?**  
1. Bagasse can be used as biomass fuel for the generation of energy.  
2. Molasses can be used as one of the feedstocks for the production of synthetic chemical fertilizers.  
3. Molasses can be used for the production of ethanol.  
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 | **Environment**  
C  
M  
CA | **Old NCERT Class VI page 25**  
**EM**  
On its path around the sun, the earth’s axis always remains inclined to one side. Because of this constant inclination in one direction, the Northern Hemisphere remains inclined towards the sun or faces the sun during one half of the year. Therefore, a larger part of this hemisphere receives sunlight. Every point in this hemisphere takes a longer time to go out of the sunlight, with the result that the days are longer. In contrast, the Southern Hemisphere is away from the sun. It, therefore, has shorter days and longer nights. During the other half of the year, the Southern Hemisphere is inclined towards the sun. Hence, it has longer days and shorter nights.

| **Variations in the length of daytime and nighttime from season to season are due to**  
(a) the earth’s rotation on its axis  
(b) the earth’s revolution round the sun in an elliptical manner  
(c) latitudinal position of the place  
(d) revolution of the earth on a tilted axis | **Geography**  
D  
F | **Old NCERT Class VI page 25**  
**EM**  
On its path around the sun, the earth’s axis always remains inclined to one side. Because of this constant inclination in one direction, the Northern Hemisphere remains inclined towards the sun or faces the sun during one half of the year. Therefore, a larger part of this hemisphere receives sunlight. Every point in this hemisphere takes a longer time to go out of the sunlight, with the result that the days are longer. In contrast, the Southern Hemisphere is away from the sun. It, therefore, has shorter days and longer nights. During the other half of the year, the Southern Hemisphere is inclined towards the sun. Hence, it has longer days and shorter nights.

| **The Narmada river flows to the west, while most other large peninsular rivers flow to the east. Why?**  
1. It occupies a linear rift valley.  
2. It flows between the Vindhyas and the Satpuras.  
3. The land slopes to the west from Central India.  
Select the correct answer using the codes | **Geography**  
A  
D  
F | **INDIA : PHYSICAL ENVIRONMENT**  
page 27  
**EM**  
The Narmada and the Tapi flow through the rift valley. Statement 3 is factually correct however, is not the reason for the rivers to flow to the west.

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</table>
| **Attorney General in controversy in recent affidavit by CBI in Supreme Court regarding Coal scam report and subsequent resignation letter by Additional Solicitor General** | **Polity**  
C  
E  
FCA | **Laxmikanth page 42.1**  
He doesn’t have right to vote. | **EM**  
The Narmada and the Tapi flow through the rift valley. Statement 3 is factually correct however, is not the reason for the rivers to flow to the west.
<table>
<thead>
<tr>
<th>Question Number</th>
<th>Question</th>
<th>Options</th>
<th>Additional Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>66</td>
<td>On the planet earth, most of the freshwater exists as ice caps and glaciers. Out of the remaining freshwater, the largest proportion (a) is bound in atmosphere as moisture and clouds (b) is found in freshwater lakes and rivers (c) exists as groundwater (d) exists as soil moisture</td>
<td>Environment: C E F</td>
<td>NCERT Ecology and Environment page 281</td>
</tr>
<tr>
<td>67</td>
<td>Consider the following pairs: 1. Nokrek Biosphere Reserve Garo Hills 2. Logtak (Loktak) Lake Barail Range 3. Namdapha National Park Dafila Hills Which of the above pairs is/are correctly matched? (a) 1 only (b) 2 and 3 only (c) 1 and 3 (d) None</td>
<td>Geography: A M F</td>
<td>Page 18,35 Orient Black Swan School Atlas</td>
</tr>
<tr>
<td>68</td>
<td>Consider the following: 1. Electromagnetic radiation 2. Geothermal energy 3. Gravitational force 4. Plate movements 5. Revolution of the earth 6. Rotation of the earth Which of the above are responsible for bringing dynamic changes on the surface of the earth? (a) 1, 2, 3 and 4 only (b) 1, 3, 5 and 6 only (c) 2, 4, 5 and 6 only (d) 1, 2, 3, 4, 5 and 6</td>
<td>Geography: D M FA</td>
<td>NCERT FUNDAMENTALS OF PHYSICAL GEOGRAPHY Chapter 6 - Geomorphic Processes</td>
</tr>
<tr>
<td>69</td>
<td>Which of the following bodies does not/do not find mention in the Constitution? 1. National Development Council 2. Planning Commission 3. Zonal Councils 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</td>
<td>Polity: D E F</td>
<td>Laxmikant: <a href="http://www.mha.nic.in/uniquepage.asp?ID_PK=470">http://www.mha.nic.in/uniquepage.asp?ID_PK=470</a></td>
</tr>
<tr>
<td>70</td>
<td>The demand for the Tebhaga Peasant Movement in Bengal was for (a) the reduction of the share of the landlords from one-half of the crop to one-third (b) the grant of ownership of land to peasants as they were the actual cultivators of the land.</td>
<td>Modern History: A D F</td>
<td>Spectrum Modern India P-387</td>
</tr>
</tbody>
</table>

Electromagnetic radiation causes temperature change which induces metamorphism of rocks. Gravity besides being a directional force activating all downslope movements of matter also causes stresses on the earth's materials. Plate movement results into continent building. The energy emanating from within the earth is the main force behind endogenic geomorphic processes. This energy is mostly generated by radioactivity, rotational and tidal friction and primordial heat from the origin of the earth. This energy due to geothermal gradients and heat flow from within induces diastrophism and volcanism in the lithosphere. Due to variations in geothermal gradients and heat flow from within, crustal thickness and strength, the action of endogenic forces are not uniform and hence the tectonically controlled original crustal surface is uneven.

The Tebhaga movement was a militant campaign initiated in Bengal by the Kisan Sabha (peasants front of Communist Party of India) in 1946. At that time share-cropping peasants (essentially, tenants) had to give half of their harvest to the owners of the land. The demand of the Tebhaga (sharing by thirds) movement was to reduce the share given to landlords to one third.

NDC and Planning Commission are non-constitutional and non-statutory bodies while Zonal councils were set up vide Part-III of 'States Re-organisation Act, 1956'
<table>
<thead>
<tr>
<th>Question</th>
<th>Choice</th>
<th>Correct Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>71</td>
<td>The Parliament can make any law for whole or any part of India for implementing International treaties</td>
<td>(a) with the consent of all the States</td>
</tr>
<tr>
<td>72</td>
<td>In the grasslands, trees do not replace the grasses as a part of an ecological succession because of</td>
<td>(b) limited sunlight and paucity of nutrients</td>
</tr>
<tr>
<td>73</td>
<td>Which one of the following is the correct sequence of ecosystems in the order of decreasing productivity?</td>
<td>(b) Mangroves, oceans, grasslands, lakes</td>
</tr>
<tr>
<td>74</td>
<td>Contour bunding is a method of soil conservation used in</td>
<td>(b) low flat plains, close to stream courses, liable to flooding</td>
</tr>
<tr>
<td>75</td>
<td>The Government enacted, the Panchayat Extension to Scheduled Areas (PESA) Act in 1996. Which one of the following is not identified as its objective?</td>
<td>(b) To recognize traditional rights</td>
</tr>
</tbody>
</table>
76. Under the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006, who shall be the authority to initiate the process for determining the nature and extent of individual or community forest rights or both?
(a) State Forest Department  
(b) District Collector/Deputy Commissioner  
(c) Tahsildar/Block Development Officer/Mandal Revenue Officer  
(d) Gram Sabha

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<tr>
<th>Polity</th>
<th>D</th>
<th>E</th>
<th>FCA</th>
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<tr>
<td>RM</td>
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77. Improper handling and storage of cereal grains and oilseeds result in the production of toxins known as aflatoxins which are not generally destroyed by normal cooking process. Aflatoxins are produced by
(a) bacteria  
(b) protozoa  
(c) moulds  
(d) viruses

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<th>Environment</th>
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<th>CA</th>
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Aflatoxins are naturally occurring mycotoxins that are produced by many species of Aspergillus, a fungus. The term “mould” is a common name having no taxonomic significance. It is applied to a variety of fungi which grow as semi-microscopic organisms, and whose mycelium tends to form a loose meshwork rather than a dense tissue.

78. 'Economic Justice' as one of the objectives of the Indian Constitutional has been provided in
(a) the Preamble and the Fundamental Rights  
(b) the Preamble and the Directive Principles of State Policy  
(c) the Fundamental Rights and the Directive Principles of State Policy  
(d) None of the above

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<thead>
<tr>
<th>Polity</th>
<th>B</th>
<th>E</th>
<th>F</th>
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<tr>
<td>EM</td>
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</table>

Directive Principles strive for the ‘economic democracy/justice’ while Fundamental rights strive for ‘Political democracy/justice’

79. Due to improper/indiscriminate disposal of hold and used computers or their parts, which of the following are released into the environment as e-waste?
1. Beryllium
2. Cadmium
3. Chromium
4. Heptachlor
5. Mercury
6. Lead
7. Plutonium

Select the correct answer using the code given below:
(a) 1, 3, 4, 6 and 7 only  
(b) 1, 2, 3, 5 and 6 only  
(c) 2, 4, 5 and 7 only  
(d) 1, 2, 3, 4, 5, 6 and 7

<table>
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<tr>
<th>Environment</th>
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Beryllium is used in circuit board, Hard disk drive, Motherboard, Wiring board and Connectors. So Option C is wrong.
Mercury is a key part of some modern technologies, including LCD screens, Laptop and computers so Option A is also wrong.
Heptachlor is an organochlorine compound that was used as an insecticide. So Option D is also wrong.
If initially we are sure about Heptachlor then we can easily eliminate A, C and D. So correct answer is B.

80. Acid rain is caused by the pollution of environment by

<table>
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<th>Environment</th>
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<th>F</th>
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<tr>
<td>EM</td>
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Sulphur dioxide and nitrogen oxides both combine with water in the atmosphere to create acid rain.
<table>
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<tr>
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<th>Reference</th>
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</thead>
<tbody>
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<td>81</td>
<td>With reference to food chains in ecosystems, consider the following statements: 1. A food chain illustrates the order in which a chain of organisms feed upon each other. 2. Food chains are found within the populations of a species. 3. A food chain illustrates the numbers of each organism which are eaten by others. Which of the statements given above is/are correct? (a) 1 only (b) 1 and 2 only (c) 1, 2 and 3 (d) None</td>
<td>Environment A E F</td>
<td>EM</td>
</tr>
<tr>
<td>82</td>
<td>Consider the following pairs: National Park River flowing through the Park 1. Corbett National Park Ganga 2. Kaziranga National Park Manas 3. Silent Valley National Park Kaveri Which of the above pairs is/are correctly matched? (a) 1 and 2 (b) 3 only (c) 1 and 3 (d) None</td>
<td>Geography D M FCA</td>
<td>RM</td>
</tr>
<tr>
<td>83</td>
<td>Consider the following organisms: 1. Agaricus 2. Nostoc 3. Spirogyra Which of the above is/are used as biofertilizer/biofertilizers? (a) 1 and 2 (b) 2 only (c) 1 and 3 (d) None</td>
<td>Environment B D F</td>
<td>RR</td>
</tr>
<tr>
<td>84</td>
<td>Which of the following adds/add nitrogen to the soil? 1. Excretion of urea by animals 2. Burning of coal by man 3. Death of vegetation 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</td>
<td>Geography C M F</td>
<td>EM</td>
</tr>
</tbody>
</table>
85. **In which of the following States is lion-tailed macaque found in its natural habitat?**
1. Tamil Nadu
2. Kerala
3. Karnataka
4. Andhra Pradesh

Select the correct answer using the codes given below:
(a) 1, 2 and 3 only  (b) 2 only
(c) 1, 3 and 4 only  (d) 1, 2, 3 and 4

- **Environment**
  - A: Environment
  - M: M
  - CA: CA

- **Statement**
  - 2 is wrong as burning of coal does not produce Nitrogen of its compounds.

- **Lion-tailed macaque**
  - One of the most endangered primates of India, confined in distribution to the rainforests of southern Western Ghats. They have adapted themselves to the evergreen environments available in the south Indian states of Kerala, Karnataka and Tamil Nadu.

86. **Some Buddhist rock-cut caves are called Chaityas, while the others are called Viharas. What is the difference between the two?**
(a) Vihara is a place of worship, while Chaitya is the dwelling place of the monks
(b) Chaitya is a place of worship, while Vihara is the dwelling place of the monks
(c) Chaitya is the stupa at the far end of the cave, while Vihara is the hall axial to it
(d) There is no material difference between the two

- **Art/ Culture**
  - B: B
  - E: E
  - F: F

- **Answer**
  - (a) and (b) are correct. Chaityas are the hall axial to the cave, while Viharas are the stupa at the far end of the cave.

87. **Which one of the following describes best the concept of Nirvana in Buddhism?**
(a) The extinction of the flame of desire
(b) The complete annihilation of self
(c) A state of bliss and rest
(d) A mental stage beyond all comprehension

- **Art/ Culture**
  - A: Art/ Culture
  - M: M
  - F: F

- **Answer**
  - (a) is correct. Nirvana is the extinction of desire, pain, pleasure etc. It is like an extinction of flame.

88. **According to the Constitution of India, which of the following are fundamental for the governance of the country?**
(a) Fundamental Rights
(b) Fundamental Duties
(c) Directive Principles of State Policy
(d) Fundamental Rights and Fundamental Duties

- **Politics**
  - C: C
  - E: E
  - F: F

- **Article**
  - 37 says that Directive Principles are fundamental for the governance of country.

89. **The people of India agitated against the arrival of Simon Commission because**
(a) Indians never wanted the review of the working of the Act of 1919
(b) Simon Commission recommended the abolition of Dyarchy (Diarchy) in the Provinces
(c) There was no Indian member in the Simon Commission
(d) The Simon Commission suggested the

- **Modern History**
  - C: C
  - E: E
  - F: F

- **Spectrum Modern India**
  - p-157

- **Statement**
  - Article 37 says that Directive Principles are fundamental for the governance of country.
## Quit India Movement

- **Quit India Movement** was launched in response to (a) **Cabinet Mission Plan** (b) **Cripps Proposals** (c) **Simon Commission Report** (d) **Wavell Plan**

**Modern History: B E F**

Spectrum Modern India p- 205

*The Cripps Mission Proposal*, which included terms like establishment of Dominion, establishment of a Constituent Assembly and right of the Provinces to make separate constitutions. These would be, however, granted after the cessation of the Second World War. So fail to satisfy Indian Nationalists. According to the Congress, this Declaration only offered India a promise that was to be fulfilled in the future. Commenting on this Gandhi said, “It is a post dated cheque on a crashing bank and in CWC meeting at Wardha July 1942 accepted the idea of struggle.”

## Balance of Payments

- **The balance of payments** of a country is a systematic record of:
  - (a) all import and export transactions of a country during a given period of time, normally a year
  - (b) goods exported from a country during a year
  - (c) economic transaction between the government of one country to another
  - (d) capital movements from one country to another

**Economy: A E F**

NCERT Class XII: Macroeconomics Page 77

The balance of payments (BoP) record the transactions in goods, services and assets between residents of a country with the rest of the world for a specified time period typically a year. So best option is A.

## Reserve Bank of India

- **The Reserve Bank of India** regulates the commercial banks in matters of:
  - 1. liquidity of assets
  - 2. branch expansion
  - 3. merger of banks
  - 4. winding-up of banks

Select the correct answer using the codes given below:

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

**Economy: D M FCA**

NCERT Class XII: Macroeconomics Page 43

Instruments of Monetary Policy and the Reserve Bank of India + RBI, CCI to vet all banking mergers | Business Standard

All statements are implied from the fact that RBI is regulator of Banks. One could think that merger might come under CCI only but its comes both under CCI and RBI.

1. CRR, SLR etc.
2. Press Information Bureau English ReleasesAs per Reserve Bank of India’s (RBI) Branch Authorisation Policy, general permission has been granted to domestic Scheduled Commercial Banks (other than RRBs) to open branches / mobile branches / Administrative Offices / GCs (Service Branches), (i) in Tier 3 to Tier 6 centres (with population up to 49,999) and (ii) in rural, semi-urban and urban centres of the North-Eastern States and Sikkim subject to reporting. Opening of branches by these banks in Tier 1 and Tier 2 centres (centres with population of 50,000 and above) requires prior approval of RBI except in North Eastern States and Sikkim. Banks apply for authorisations for opening of branches in Tier 1 and Tier 2 centres in their Annual Branch Expansion Plan.
3. Mergers and acquisitions (M&As) in the banking space may require clearance from fair market watchdog, Competition Commission of India (CCI), as well as the sector regulator, Reserve Bank of India (RBI). Earlier, the indications were that only involuntary mergers and acquisitions, the ones directed by the RBI, would go to the central bank along with the CCI. However, all mergers and acquisitions may now come under both. While the CCI will look at the competition part of such deals, the RBI will see prudential aspects.
4. RBI issued order to windup few banks in recent past. (Sahara India Financial Corp (SIFCL), the parabanking arm of Sahara India Banking Laws Amendment Act which increased the regulating powers of RBI
An increase in the Bank Rate generally indicates that the
(a) market rate of interest is likely to fall
(b) Central Bank is no longer making loans to
commercial banks
(c) Central Bank is following an easy money
policy
(d) Central Bank is following a tight money
policy

Implied from deposit insurance and credit guarantee corporation
(DICGC) scheme.

An increase in the Bank Rate generally implies that the RoI.
(a) market rate of interest is likely to fall
(b) Central Bank is no longer making loans to commercial banks
(c) Central Bank is following an easy money policy
(d) Central Bank is following a tight money policy

Economy
D
E
F
NCERT Class XII:
Macroeconomics Page 44
EM

In India, deficit financing is used for raising
(a) economic development
(b) redemption of public debt
(c) adjusting the balance of payments
(d) reducing the foreign debt

Economy
A
E
F
NCERT XII-Macro Economics
Page Economic Survey
EM

Which of the following characterizes/characterize the people of
Indus Civilization?
1. They possessed great palaces and temples.
2. They worshipped both male and female deities.
3. They employed horse-drawn chariots in warfare.
Select the correct statement/statements using the codes given below:
(a) 1 and 2 only
(b) 2 only
(c) 1, 2 and 3
(d) None of the statements given above is correct

Ancient India
B
M
F
11th Ancient NCERT BK B5
SHARMA P - 61, 62
EM

Which of the following diseases can be transmitted from one person to another through tattooing?
1. Chikungunya
2. Hepatitis B
3. HIV-AIDS
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

Science and Technology
B
M
FCA
https://www.msd.edu/~krcmari
1/individual/get_health.html
EN

Currently there are some 200+ communicable diseases that can be transmitted through tattooing.
Hepatitis B- Hepatitis B and C can lead to serious, permanent liver damage and are known to be transmittable through tattooing.
Hepatitis can survive outside its host for up to two weeks and can resist most normal forms of disinfection. Also, studies show that the ratio of hepatitis transmission through accidental needle stick is much greater than that of HIV. About one in five as opposed to one in 200 for HIV.
HIV/AIDS- The term needle in tattooing is a misnomer since tattoos are not applied by needles but rather with pins. A needle is typically a hollow core implant that is used primarily for intravenous injections such as a syringe or IV needle. Tattoo ‘needles’ are solid core and push the ink into the skin rather than inject it. This requires that the ink, and any contaminated blood mixed with it, must adhere to the outside surface of the pins causing the virus to come into contact with the open air.

New vaccine candidate for Chikungunya virus found (http://www.indianexpress.com/news/new-vaccine-candidate-for-chikungunya-virus-found/1078190/)
Indian Immunologicals developing vaccine for chikungunya (http://www.thehindubusinessline.com/companies/new-vaccine-candidate-for-chikungunya-virus-found-1078190-i57232401.html)
<table>
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<tr>
<th>Question</th>
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</table>
| 97 | Which of the following statements is/are applicable to Jain doctrine?  
1. The surest way of annihilating Karma is to practice penance.  
2. Every object, even the smallest particle has a soul.  
3. Karma is the bane of the soul and must be ended.  
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 | (c) 1 and 3 only | NIOS art and Culture  
p-1 to 7 |
| 98 | Which one of the following terms describes not only the physical space occupied by an organism, but also its functional role in the community of organisms?  
(a) Ecotone   
(b) Ecological niche   
(c) Habitat   
(d) Home range | (b) Ecological niche | Environment  
http://www.biology-online.org/dictionary/Ecological_Niche |
| 99 | Photochemical smog is a resultant of the reaction among  
(a) NO2, O3 and peroxyacetyl nitrate in the presence of sunlight   
(b) CO, O2 and peroxyacetyl nitrate in the presence of sunlight   
(c) CO, CO2 and NO2 at low temperature   
(d) high concentration of NO2, O3 and CO in the evening | (b) CO, O2 and peroxyacetyl nitrate in the presence of sunlight | Environment  
http://www.jainworld.com/pdf/JAINA_DOCTRINE_OF_KARMA.pdf p-1 to 7 |
| 100 | Consider the following minerals:  
1. Calcium  
2. Iron  
3. Sodium  
Which of the minerals given above is/are required by human body for the contraction of muscles?  
(a) 1 only  
(b) 2 and 3 only  
(c) 1 and 3 only  
(d) 1, 2 and 3 | (d) 1, 2 and 3 | Science and Technology  
Observations

- Paper is almost on the same lines as previous year. Importance of Ecology, Economy and Culture is increasing every year. Geography is almost constant but modern India has incurred losses.
- Question in Economy, Polity and History are basic and easy-medium difficulty questions. Science, Culture & Geography questions are medium to difficult level. In addition, less ambiguous questions this time compared to last year. So average score should be more in this paper compared to last year but not too much.
- Direct current affairs is losing significance but even then half of the fundamental questions looks inspired by current happenings. Moreover, backgrounder of current affairs are becoming important. (Coal scam is of no use but properties of Indian coal are important. Recommendation of Rangarajan Panel on Sugar decontrol are not important but use of sugar by product is important.)

Recommendations

- Read basic books properly. (more than 60% from basic books)
- Think, compare and contrast concepts. (Virus vs Bacteria as decomposer; Transmission of chikungunya vs Hepatitis B;)
- Familiarize yourself with keywords you encounter while reading basic books as well as current affairs (contour bunding, Demographic Dividend, disguised unemployment)
- Relate current affairs with basic topic keeping question in mind. Understand the significance of news.
- Do not take anything for granted. UPSC can change anytime. So prioritize studies but do not neglect any section/topic.
**Nature of Question**

**F: Fundamental,** Conventional and conceptual question which is easily available in commonly recommended books. If a current affairs source is mentioned then it indicate that you had one more reason to prepare this topic.

**FA:** Fundamental Applied question is an analytical question which require information + application of mind. Answer to these question are from commonly recommended books, but not so obvious to find.

**CA:** Current affair question which can be answered almost completely using given source alone.

**CAA(Current affair Applied):** Current affair question which needs information from more than one source to answer AND/OR application of mind(common sense and overall understanding) of aspirant. This is why source for these question may not be answering question completely.

**FCA(Fundamental + Current affair):** This is a F or FA question supplemented with current affairs or a current affairs question that needs background information for complete answer. Source to these question might not answer question in entirety.

**U(unconventional question):** Unconventional question means the question that is distantly related to syllabus provided by UPSC. It is neither present in even reference sources(in addition to recommended books) nor prominently in news.
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**Special Note:** For more details & in-depth analysis of any section of General Studies Prelim paper or any other clarification regarding this strategic analysis paper please mail us.

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