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UPSC Prelims Solution 2012 by GKToday

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Dear Readers,

Thanks for your continued support and faith in GKToday.

Every year, we try our best to provide the reliable solution of the General Studies Paper of the UPSC Civil Services Preliminary Examination. I take this opportunity to congratulate my students Mudit Rai, Vipul Goel, Vivekanand Singh, Prabhakar Prakash Ranjan, Anshul Gupta and Ullas Kumar for a success in last year's examination. GKToday wishes them all the best for future career plans.

I would also like to congratulate my blogger friend Nikhil Pavan Kalyan of www.worthview.com for outstanding success in Civil Services 2011 and achieving AIR 60.

All efforts have been made to make this information as accurate as possible; www.gktoday.in or its author will not be responsible for any loss to any person caused by inaccuracy in the information available in this Mock Test Series. Answers provided in this document may vary with the official answers released by UPSC after the examination process is over.

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 & 2 Only
[B] 2 Only
[C] 3 Only
[D] 1, 2, & 3

1 & 2 Only

Janani Suraksha Yojana (JSY) is an ambitious scheme launched under the National Rural Health Mission (NRHM), the Government of India's flagship health programme. The scheme is intervention for safe motherhood and seeks to reduce maternal and neo-natal mortality by promoting institutional delivery, i.e. by providing a cash incentive to mothers who deliver their babies in a health facility. There is also provision for cost reimbursement for transport and incentives to Accredited Social Health Activists (ASHA) for encouraging mothers to go for institutional delivery. The scheme is fully sponsored by the Central Government and is implemented in all states and Union Territories (UTs), with special focus on low performing states. There is provision for roping in the private sector by giving accreditation to willing private hospitals/nursing homes for providing delivery services. The wage loss scheme is IGMSY. The correct answer of this question is 1 & 2. The two schemes, we have compared many times. There was a question in GKToday's Mock Tests also which you can access on [here](#)

12. 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

Carbon, Hydrogen, Nitrogen

The correct answer of this question, as most of you know, is Carbon, Hydrogen and Nitrogen. In fact, the early biochemistry was not simply the reactions of Carbon, Hydrogen, Nitrogen and Oxygen was bit far from it, was CO₂, N and water resulting in the organic acids such as oxalic acid.

13. 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 & 3 Only

[B]2 & 3 only

[C]3 & 4 only

[D]1,2,3 & 4

3 & 4 Only

The first statement is incorrect. The second statement is also NOT correct. Bt Brinjal is NOT a terminator seed, as of now. Lead bank Scheme

40. 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 & 2

[C]2 & 3

[D]None

None

Raja Todarmal had introduced the assessment of land revenue on the basis of nature of the soil and the quality of crops, as Akbar's able minister. Akbar's grandfather Babur had already done conquest Delhi through his brilliant use of mobile light canon, centuries before British. The third statement is also incorrect. Correct answer is none

41. 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.

Choose the correct option:

- [A] 1 & 2 Only
- [B] 3 Only
- [C] 2 & 3 Only
- [D] 1, 2, & 3

1, 2, & 3

This question is based upon a very special reference made by Kautilya in Arthashastra about the registration of Guilds. He had devised the method of regulation of guilds by:

1. Registration of the Guilds
2. Laying down the checks and balances on the activities of the artisans and forming the penal laws to prevent their transgression
3. Appointment of special tribunals to administer the laws.

All statements in this question are correct.

42. 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

Government of India Act, 1935

As far as legislative powers are concerned, the constitution of India follows a system that is similar to the Canadian Constitution, but Indian Constitution has a more elaborate Concurrent List which was a result of following the Australian Constitution. The scheme of division of legislative powers is almost same as in the Government of India Act 1935. Then, if we talk about the distribution of the taxing power and revenues under the Indian Constitution, we find that it follows the scheme of 1935 act, which was actually based upon the experiences of 65 years since the times of Lord Mayo. Correct answer is C.

43. 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 & 3 Only



[C]1 & 3 Only

[D]1,2, & 3

2 & 3 Only

This question does not need an explanation.

44. 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:

[A]direction facing the polestar

[B]direction opposite to the polestar

[C]direction keeping the polestar to his left

[D]direction keeping the polestar to his right

direction keeping the polestar to his left

UPSC has lifted this beautiful question from **UPSC Prelims paper 1992**. Its easy, the person would walk in the direction, keeping the polestar to his left.

45. 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 & 3 Only

[C]1 & 3 Only

[D]1,2 & 3

1 & 3 Only

The second statement is not correct. Also note that China has now (day before yesterday) lifted the restrictions :)

46. 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 & 3 Only
- [C]1 & 3 Only
- [D]1,2 & 3

1 Only

The second statement you needed to eliminate because CO is a major concern. Then, third statement is also incorrect.

47. 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 & 3 Only
- [C]1 & 3 Only
- [D]1,2 & 3

1 Only

UV does not change the taste, odor or color of the water.

48. 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, LeOs and organic LEOs.

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 & 4

1, 2 and 4 only

All of you must have eliminated the third statement.

49. 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 & 3 only

[B]1 and 3 only

[C]2 & 4 only

[D]1,2,3 & 4

1 and 3 only

Some people point that all options are correct, one of them citing example of cosmetics such as Sindoor. But Sindoor or Vermilion contains Mercury (HgS) not Lead. Then, UPSC does not expect you to be an expert in chemicals. They simply want to know whether you know that lead pencils are graphite pencils. Then, one reader says that in inks of some pens cause lead pollution. But do you think, it is really a health Hazard. Check applications of lead on wikipedia and you will find that you can not wipe-out lead from our life. In cosmetics, there have been some concerns about lead acetate in Lipstics in US. But in this question, UPSC intentionally does not give a choice to choose 1, 3 & 4. In our view, the correct answer is 1 and 3 only. You can read about the exposure routes [here](#) In Our view, the question could bring out more from the aspirants, if UPSC had put an option like Chinese toys,Hunting Bullets etc.

50. 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 & 2 Only

[B]2 & 3 Only

[C]3 Only

[D]1,2 and 3

2 & 3 Only

51. 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 & 4 Only

[D]1,2,3 & 4



1, 3 & 4

52. 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 & 3 only

[C]3 Only

[D]1,2 & 3

2 & 3 only

You may read about it [here](#)

53. 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 & 4

[D]None

1 and 2

The fourth statement seems correct but is not. The supernova explosions have helped astronomers determine both the distance of the galaxy and the redshift of the galaxy. The astronomers could then compare distance to expansion, and create a kind of 'expansion history' of the Universe. This showed that the expansion of universe was "increasing" means "the Universe's expansion is accelerating".

54. 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 (e) given above is correct

A is correct answer and is a reason of aurorae too.

55. 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 & 4 Only
- [D]1,2,3,4

1,3 & 4 Only

Lets analyze these statements:

1. Different kinds of specialized surgical instruments were in common use by 1st century AD.
This is an correct statement. We have been told that in ancient India, it was Sushrut who is known to be the first surgeon. He not only used the S type and U type surgical instruments but also has documented plastic surgery. However, historians have not been able to assign a definite period to Sushruta. The era of Sushrut is most probably BC and definitely it was prior to 1st century AD.

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

Sushruta mentioned the plastic surgery in which the flaps of nose skins were used to replace at other parts. We don't have (most probably) the sources that write about internal transplant

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

This is a correct statement and hints towards Aryabhata's Surya Siddhanta. Aryabhata has given the sine and versed sine tables familiar to the students of mathematics.

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

Again this is a correct statement and hints towards Brahamgupta , who gave the formula for the area of the cyclic quadrilateral.

Correct answer of this question should be 1, 3 and 4 only.

56. 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 & 3

2 and 3 only

57. 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

Choose the correct answer:

- [A]1 and 2 only
- [B]3 and 4 only
- [C]2,3 and 4 only
- [D]1,2,3 & 4

2,3 and 4 only

Kindly pay attention to statement 2. You must be aware that in last few years, Government has strengthened the district as the unit of planning in almost all Centrally sponsored programmes. Government has also consciously structured the flagship programmes in a manner that strengthens decentralized management through local institutions. In the Sarva Shiksha Abhiyan and the National Rural Health Mission, District level Plans are being prepared and funded. In the National Rural Employment Guarantee Programme, village panchayat level plans are prepared and aggregated at the District level as a District Plan and funds released to executing agencies which happen to be largely the panchayats. Similarly in the urban areas, under JNNURM, 63 cities have evolved medium term development plans for the cities and have been supported with Central Government funds. Each district planning committee has a crucial role in building a thoughtful vision for its district through a participative and inclusive process. This is a correct statement. Option 3 & 4 are also correct. Correct answer is 2,3 & 4 only.

58. The Nagara, the Dravida and the Vesara are the:

- [A]three main racial groups of the Indian subcontinent
- [B]three main linguistic divisions into which the languages of India can be classified
- [C]three main styles of Indian temple architecture
- [D]three main musical Gharanas prevalent in India

three main styles of Indian temple architecture

Most of you know even also about Gadag style which is known for ornate columns :)

59. 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 (e) given above is correct

None (D)

None of them was a reason. The actual reason was that congress, following its policy of non-cooperation in the war effort had called upon the ministries to resign. For Jinnah , it was a recipe for organizing the DOD on 22.12.1939

60. 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

To pass a resolution empowering the Parliament to make laws in the State List and to create one or more All India Services

The second part of the given statement in option B is known to almost all of you. First part of this statement is also correct and is as per the article 249., which says 249 (1) Notwithstanding anything in the foregoing provisions of this Chapter, if the Council of States 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, it shall be lawful for Parliament to make laws for the whole or any part of the territory of India with respect to that matter while the resolution remains in force.

61. 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 agri-business 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 & 2

[B]2 Only

[C]1 & 3 Only

[D]1, 2 & 3

2 Only

The objective of the Mission is to reduce poverty among rural BPL by strengthening 'self-help



groups' and providing skill development and promoting diversified and gainful self-employment and wage employment opportunities which would lead to an appreciable increase in income on sustainable basis. In the long run, it will ensure broad based inclusive growth and reduce disparities by spreading out the benefits from the islands of growth across the regions, sectors and communities.

62. 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 & 3 Only
- [C] 1 & 3 Only
- [D] 1, 2 & 3

1 Only

The Human Development Index measures the Standard of living, as indicated by the natural logarithm of gross domestic product per capita at purchasing power parity. The Multidimensional Poverty Index measures the standard of living on the basis of deprivation of Cooking fuel, Toilet, Water, Electricity, Floor, Assets. Correct Answer is 1 Only.

63. 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 & 3 Only
- [C] 1 & 3 Only
- [D] 1, 2 & 3

1 & 3 Only

The 13FC report has an elaborate design for the GST. Statement 1 is correct. Statement 2 is incorrect. Report basically discusses the improved implementation of the existing schemes. The third statement is correct. The report in its para 10.144 mentions: "Taking into account the demand of local bodies that they be allowed to benefit from the buoyancy of central taxes and the Constitutional design of supplementing the resources of panchayats and municipalities through grants-in-aid, we recommend that local bodies be transferred a percentage of the divisible pool of taxes (over and above the share of the states), as stipulated by us, after



converting this share to grant-in-aid under Article 275."

64. 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 & 3 Only
- [C]1 & 3 Only
- [D]1, 2 & 3

1, 2 & 3

All three are parts of National Manufacturing Policy . You may read about the policy [here](#)

65. 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-an-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 & 5 Only
- [B]1, 2 & 4 only
- [C]3, 4 & 5 Only
- [D]1, 2, 3, 4 & 5 Only

1, 2, 3 & 5 Only

The statement 1, 2, 3 & 5 are as per various provisions in the constitution of India. Kindly pay attention to statement 4. The review of programme of the Government against macroeconomic forecasts and expenditure is NOT done by a Parliamentary Budget Office but is done by the central government (Finance Ministry) which is as per the provisions of the Fiscal Responsibility and Budget Management (FRBM) Act, 2003. This act requires that review in trend of receipts and expenditure be undertaken in relation to the budget on a quarterly basis (and not periodic or at least mid-year as the statement says). The rules prescribe the form for the quarterly review of the trends of receipts and expenditures. The rules mandate the Central Government to take appropriate corrective action in case of revenue and fiscal deficits exceeding 45 per cent of the budget estimates, or total non-debt receipts falling short of 40 per cent of the budget estimates at the end of first half of the financial year.



66. 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

Ramsay Macdonald announced the Communal Award

On August 17, 1932, Ramsay MacDonald had announced his communal award, reserving seats for the "Depressed Classes" as well as Muslims and Sikhs. Gandhi, on the very next day had written to MacDonald – "I have to resist your decision with my life". He declared fast unto death against the Communal Award. Thus option C is correct.

67. With reference to Ryotwari Settlement, consider the statements :

1. The rent was paid directly by the peasants to the Government.
2. The Government gave Pattas to the Ryats.
3. The lands were surveyed and assessed before being taxed.

Which of the statements given above is/are correct?

- [A] 1 Only
- [B] 1 & 2 Only
- [C] 1, 2 & 3
- [D] None

1, 2 & 3

In the Ryotwari Settlement, it was theoretically proposed that annual agreements would have to be made with the cultivators. If the cultivators would agree, they would get Pattas. As per the system, Government was the Supreme landlord and the peasants were Land Owners, who obtained the title / patta by paying annual cash rents or revenue assessment directly to the Government. Statement 1 is correct. Statement 2 is also correct. Please note that a special state fee called Nazarana was charged for giving occupancy rights or Pattas.

The third statement is also correct. In the Ryotwari System, the land revenue was assessed according to the fertility of land. The average assessment payable in cash was around Re. 1 per acre. However, practically, this was not done. If the system were efficient by making the surveys and assessment of the lands, the Ryotwari System would not have failed probably. The lands were taxes on guesswork and that is why peasants came under stress. This was the major reason of failure of Ryotwari System.

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

1. Low birth rate with low death rate
2. High birthrate with high death rate
3. High birthrate with low death rate

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

- [A] 1 2 3
- [B] 2 1 3

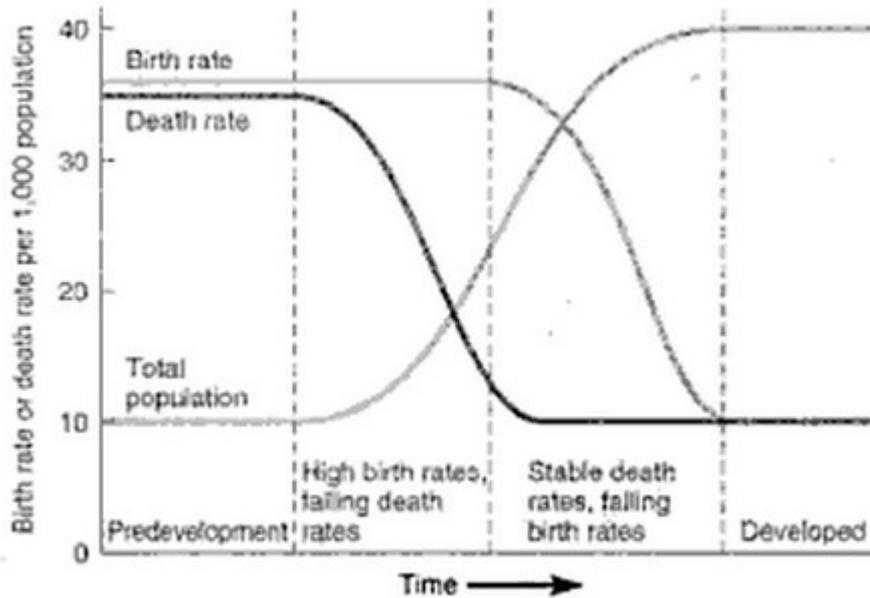


[C]2 3 1

[D]3 2 1

2 3 1

This is a very easy question. Economic Development means improved living conditions. Improved living conditions means low birth rate and low death rate. For example, we can say that India has achieved impressive demographic transition owing to the decline of crude birth rate, crude death rate, total fertility rate and infant mortality rate. Now, to arrange the above three, you may look at the following chart:



Accordingly the correct answer would be 2 3 1

69. In India, in the overall Index of Industrial Production, the Indices of Eight Core Industries have a combined weight of 37.90%. 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 & 5 Only

[B]2, 3 & 4 Only

[C]1, 2 3 & 4 Only

[D]1, 2, 3 4 & 5

1, 2, 3 & 4 Only

The Eight core industries have a combined weight of 37.90 per cent in the Index of Industrial Production (IIP). They are as follows:



Coal
Crude Oil
Natural Gas
Petroleum Refinery Products
Fertilizers
Steel (Alloy + Non-Alloy)
Cement
Electricity

70. 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 & 2 Only

[B] 3, 4, & 5 Only

[C] 1, 2 & 5 only

[D] 1, 2, 3, 4 & 5

1, 2 & 5 only

DPSP:

41. The State shall, within the limits of its economic capacity and development, make effective provision for securing the right to work, to education and to public assistance in cases of unemployment, old age, sickness and disablement, and in other cases of undeserved want.

45: The State shall endeavour to provide, within a period of ten years from the commencement of this Constitution, for free and compulsory education for all children until they complete the age of fourteen years.

Rural & Urban Local Bodies:]

Article 350A: It shall be the endeavour of every State and of every local authority within the State to provide adequate facilities for instruction in the mother-tongue at the primary stage of education to children belonging to linguistic minority groups; and the President may issue such directions to any State as he considers necessary or proper for securing the provision of such facilities.

Fifth Schedule: ___

Sixth Schedule: Additional powers of the North Cachar Hills Autonomous Council and the Karbi Anglong Autonomous Council to make laws. —(1)

Without prejudice to the provisions of paragraph 3, the North Cachar Hills Autonomous Council and the Karbi Anglong Autonomous Council within their respective districts, shall have power to make laws with respect to—



(a) industries, subject to the provisions of entries 7 and 52 of List I of the Seventh Schedule; (b) communications, that is to say, roads, bridges, ferries and other means of communication not specified in List I of the Seventh Schedule; municipal tramways, ropeways, inland waterways and traffic thereon subject to the provisions of List I and List III of the Seventh Schedule with regard to such waterways; vehicles other than mechanically propelled vehicles; (c) preservation, protection and improvement of stock and prevention of animal diseases; veterinary training and practice; cattle pounds; (d) primary and secondary education;

Seventh Schedule:

State List : 25. Education, including technical education, medical education and universities, subject to the provisions of entries 63, 64, 65 and 66 of List I; vocational and technical training of labour.'

In our view, the correct answer should be 1, 2, 4 & 5. However, we have not been given this option. So correct option may be 1, 2 & 5 (Option C) provided UPSC accepts it as a correct answer.

71. 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 & 4 Only

[C] 1 & 3 Only

[D] 1, 2, 3 & 4

1 & 3 Only

Sea- Buck Thorn

1. Seabuckthorn is a medicinal plant found in the Himalayan region. Our country holds tremendous potential in respect of Seabuckthorn fruit production and diverse varieties which have health-promoting properties and can play a crucial role in preventing soil erosion and help nitrogen fixation in cold and desert areas.

2. This is the most important environmental benefit of the Seabuckthorn.

3. Seabuckthorn fruit grows in the cold deserts of Ladakh region of Jammu and Kashmir, Lahul-Spiti in Himachal Pradesh and some parts of Arunachal Pradesh.

Please note that as of now, it has not been established that Seabuckthorn oil is a "Rich" source of Biodiesel. It was studied as a good option / candidate for the manufacture of biodiesel. The major use of seabuckthorn oil is in medicinal and food use. In my view, statement 2 is incorrect. Then, its a shrub, how it's timber can be used and in what purpose?



National Mission on Seabuckthorn can be accessed [here](#)

72. Which of the following is the chief characteristic of 'mixed fanning'?

- [A] Cultivation of both cash crops and food crops
- [B] Cultivation of two or more crops in the same field
- [C] Rearing of animals and cultivation of crops together
- [D] None of the above

Rearing of animals and cultivation of crops together

In Indian context Mixed farming is the livestock production such as bovine stock, cattle and buffaloes, with which agriculture is integrated. Correct answer is C, UPSC framed the question poorly. They could put bit smarter question.

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

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

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

- [A] Arunachal Pradesh
- [B] Assam
- [C] Himachal Pradesh
- [D] Uttarakhand

Arunachal Pradesh

As per the State of Indian Forests Report 2011, in Arunachal Pradesh, the recorded forest area is 61.55% of its Geographical area. The protected areas here constitute 11.68% area of the state. The total forest cover of Arunachal Pradesh is 68,019 km², which is 81.22% of its area. So the correct answer is Arunachal Pradesh.

74. Consider the following crops of India :

1. Cowpea
2. Green gram
3. Pigeon pea

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

- [A] 1 & 2 Only
- [B] 2 & 3 Only
- [C] 1 & 3 Only
- [D] 1,2 & 3

1,2 & 3

Green manure crops or legumes like cowpea, horse gram and green gram improves precipitation-use efficiency during off -season. Cow Pea is Lobia. Lobia as a green manure puts in nitrogen, builds organic matter, smothers weeds and controls nematodes. Pigeon Pea (Tur/ Arhar) is also extensively used as green manure. Pulse and Fodder are all of them. So correct



answer is 1, 2 & 3.

75. Consider the following factors

1. Rotation of the Earth
2. Air pressure and wind
3. Density of ocean water
4. Revolution of the Earth

Which of the above factors influence the ocean currents?

[A] 1 & 2 Only

[B] 1, 2, 3

[C] 1 & 4

[D] 2, 3 & 4

1, 2, 3
The Rotation of Earth (Coriolis Force), forces acting via winds, temperature and salinity differences influence the ocean currents. Correct answer 1, 2 & 3.

76. Consider the following protected areas;

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

Which of the above are declared Tiger Reserves?

[A] 1 & 2 Only

[B] 1, 3 and 4 Only

[C] 2, 3 and 4 only

[D] 1, 2, 3 & 4

1, 3 and 4 Only
Bhitarkanika is not a tiger reserve

77. Consider the following statements :

1. The duration of the monsoon decreases from southern India to northern India.
2. 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?

[A] 1 Only

[B] 2 Only

[C] Both 1 & 2

[D] Neither 1 nor 2

Both 1 & 2
Both are correct statements.

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



- [A] Rainfall throughout the year
- [B] Rainfall in winter only
- [C] An extremely short dry season
- [D] A definite dry and wet season

A definite dry and wet season

Tropical Savannah has a definite dry and wet season. The wet summer season lasts 6-8 months and during these days, there is plenty of rainfall. Winter lasts for 4-6 months and there might be no rains in winter. This winter is the dry season in which there are frequent forest fires.

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

- [A] Biosphere Reserves
- [B] National Parks
- [C] Wetlands declared under Ramsar Convention
- [D] Wildlife Sanctuaries

National Parks

80. Consider the following kinds of organisms:

1. Bat
2. Bee
3. Bird

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

- [A] 1 & 2 only
- [B] 2 Only
- [C] 1 and 3 only
- [D] 1, 2 & 3

1, 2 & 3

All are pollinating agents.

81. 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, Cheetai, 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

Great Indian Bustard, Musk Deer, Red Panda and Asiatic Wild Ass

82. 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 & 4

1, 3 and 4 only

83. 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?

[A]Production of food and water

[B]Control of climate and disease

[C]Nutrient cycling and crop pollination

[D]Maintenance of diversity

Nutrient cycling and crop pollination

Ecosystem services are the benefits people obtain from ecosystems. These include provisioning services such as food and water; regulating services such as flood and disease control; cultural services such as spiritual, recreational, and cultural benefits; and supporting services, such as nutrient cycling, that maintain the conditions for life on Earth.

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

[A]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

[B]Oryx is poached for its antlers whereas Chiru is poached for its musk

[C]Oryx exists in western India only whereas Chiru exists in north-cast India only

[D]None of the statements (a), (b) and © given above is correct

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 All oryx species prefer near-desert conditions and can survive without water for long periods. Chiru is Tibetan antelope lives in cold high mountains.

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

1. Global warming

2. Fragmentation of habitat

3. Invasion of alien species

4. Promotion of vegetarianism

Choose the correct answer:

[A]1,2 & 3

[B]2 & 3

[C]1 & 4

[D]1, 2, 3 and 4



1,2 & 3

86. Consider the following:

1. Black-necked crane
2. Cheetah
3. Flying squirrel
4. Snow leopard

Which of the above are naturally found in India?

- [A] 1, 2 and 3 only
[B] 1, 3 and 4 only
[C] 2 and 4 only
[D] 1, 2, 3 and 4

1, 3 and 4 only

I think that UPSC gave a thought to the fact that as of now there are no Cheetahs in India that are naturally found. They used to be here once upon a time and now Government thinks to import them and reintroduce them here. So, the correct answer stands 1,3,4

87. Consider the following agricultural practices:

1. Contour bunding
2. Relay cropping
3. Zero tillage

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

- [A] 1 & 2 Only
[B] 3 Only
[C] 1,2 & 3
[D] None of them

1,2 & 3

Any method which helps the soil to retain more organic matter, so that it may work as an effective Carbon sink would be helpful in Carbon sequestration or storage. The question gives you three options which you need to analyze one by one:

Contour Bunding:

Contour bunding Contour bunding is one of the extensively used soil and water conservation technique in several rainfed areas. Contour bunding is a mechanical measure which minimizes the soil erosion. Contour bunding involves the construction of small bunds across the slope of the land along a contour so that the long slope is reduced to a series of small ones. The contour bund acts as a barrier to flow of water down a slope and thus the benefit is that it increases the time so that water concentrates in an area and this more water is absorbed. The question is; whether the contour bunding helps in carbon sequestration or not. The answer is YES. Contour bunding increases the water holding capacity while minimizing the surface evaporation. Then soil erosion is minimized, and surface residues favour the nutrient recycling and result in higher carbon



storage in the soil. This is a correct option.

Relay Cropping:

Relay cropping means that new a crop is planted or sown before the previous one is harvested. This can provide advantages for both crops as one of them may provide nitrogen, shade, support or may discourage pests. The obvious benefit of Relay cropping is soil conservation. Then, relay cropping helps in better yield and also helps in solid conservation. It does help in Carbon Sequestration. This is also a correct answer.

Zero Tillage:

Zero tillage is also based upon the premise of soil conservation, basic premise is to minimize the disturbances to the soil leading to an increase in retention of water, nutrients and topsoil itself. No-till has carbon sequestration potential through storage of soil organic matter in the soil of crop fields.

Thus, we conclude that all options help in carbon storage and correct answer is C that is 1, 2 & 3

One more thing I would like to tell you. These practices are called C-Enhancement Practices (CEP).

☐ CEPs consist of a single technology or practice aimed at conserving or enhancing carbon stock in selected land categories. Potential CEPs are mulching, organic manure application, green manure application, reduced or zero tillage, contour bunding, farm ponds, tank silt application, intercropping or multiple cropping, and cover cropping. :)

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

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

Select the correct answer:

[A]1 & 2 Only

[B]2 Only

[C]3 Only

[D]1, 2 & 3

1 & 2 Only

89. 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

a drug used by cattle owners for treating their diseased cattle and you know which is that drug :)

90. 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 & 3 Only

[D]1,2, & 3

1 and 2 Only

In this question, please note that there is a very big difference between minor mineral and 'any' mineral, and your examiner is expecting you to differentiate these two. The act says that the recommendations of the Gram Sabha or the Panchayats at the appropriate level shall be made mandatory prior to grant of prospecting licence or mining lease for **minor minerals** in the Scheduled Areas. This is why, the statement 3 need to be eliminated.

91. 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 collect information ministers members from the

[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

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

Objective of an adjournment motion is to draw the attention of the House to a recent matter of urgent public importance having serious consequences and in regard to which a motion or a resolution with proper notice will be too late.

92. 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 resources genetic/biological cannot be made without approval of NBA.

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

[A]1 Only

[B]2 & 3 Only

[C]1 & 3 Only

[D]1,2 & 3

1 & 3 Only

93. 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:

- [A] 1 Only
- [B] 2 & 3 Only
- [C] 1 & 3 only
- [D] 1, 2 & 3

1 Only

94. 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 & 2 Only
- [C] 3 & 4 Only
- [D] 1, 2, 3 & 4

1 & 2 Only

95. 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 Gandhian Principles reflected in the Directive of State Policy?

- [A] 1, 2 & 4 Only
- [B] 2 & 3 Only
- [C] 1, 3 & 4 Only
- [D] 1, 2, 3 & 4

2 & 3 Only

Article 40, 47 and 48 are based upon Gandhian Principles. They are as follows:

Article 40: Organization of Village Panchayats



Article 47 : Nutrition and standard of Living

Article 48: Prevention of cow slaughter, organization of agriculture and animal husbandry

96. Consider the following statements

1. Union Territories are not represented in the Rajya Sabha.
2. It is within the preview of Chief Election commissioner to adjudicate 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 & 3

[C]1 & 3

[D]None

None

97. With reference to consumers' rights/ privileges under the provisions of law in India, which of the following statements is/arc 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 & 3 Only

[C]1 & 3 Only

[D]1,2 & 3

1 & 3 Only

There is a nominal fee that is to be paid.

98. 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 need 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 & 2 Only

[B]3 Only

[C]1, 2, & 3

[D]None

3 Only



99. 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 & 2

[B]2 & 3

[C]1 & 4

[D]3 & 4

1 & 4
Original jurisdiction of the Supreme Court extends to any dispute between
1. Government of India and one or more States
2. between the Government of India and any State or States on one side and one or more States on the other or between two or more States, if insofar as the dispute involves any question (whether of law or of fact) on which the existence or extent of a legal right depends.
In addition, Article 32 of the Constitution gives an extensive original jurisdiction to the Supreme Court in regard to enforcement of Fundamental Rights. It is empowered to issue directions, orders or writs, including writs in the nature of habeas corpus, mandamus, prohibition, quo warranto and certiorari to enforce them.

100. 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 & 3 Only

[C]1 & 3 Only

[D]1,2 & 3

1,2 & 3
Neem is the best example of flowering plant as biopesticide.,