

## CHENNAI IAS ACADEMY

Vellore & Tiruvannamalai

### UPSC 2016 PRELIMINARY EXAMINATION

#### PAPER 1- GENERAL STUDIES

{100 x2 = 200 MARKS }

1. Regarding 'Atal pension Yojana', which of the following statements is/are correct?

1. It is a minimum guaranteed pension scheme mainly targeted at unorganized sector workers.
2. Only one member of a family can join the scheme
3. Same amount of pension is guaranteed for the spouse for life after subscriber's death.

Select the correct answer using the code given below.

- A. 1 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1,2 and 3

Ans. C

**Explanation:** The only condition is that the beneficiary should have a savings bank account.

**Why the question Came:** It was in the news as the provisions regarding the payment of lump-sum on the death of the subscriber was amended in the month of march 2016 by the government. Also mentioned in Economic Survey.

2. The term 'Regional Comprehensive Economic Partnership' often appears in the news in the context of the affairs of a group of countries known as

- A. G20
- B. ASEAN
- C. SCO
- D. SAARC

Ans. B

**Explanation:** RCEP is a FTA between ASEAN and six other countries (Australia, China, India, Japan, S.Korea and New Zealand)

**Why the question Came:** Recently it has been in the news for two reasons-Doctors without borders has asked India not to accept RCEP lest it wont be a medicine market of the world and recently the ASEAN members have asked India to either reduce the tariffs or to quit the talks on FTA held by RCEP. Given great importance in Economic Survey with a chapter discussing in detail!

3. On which of the following can you find the Bureau of Energy Efficiency Star Label?

1. Ceiling fans
2. Electric geysers
3. Tubular fluorescent lamps

Select the correct answer using the code given below.

- A. 1 and 2 only
- B. 3 only
- C. 2 and 3 only
- D. 1,2 and 3

**Ans. D**

**Explanation:** The scheme was launched by the Hon'ble Minister of Power in May, 2006 and is currently invoked for equipments/appliances Room Air Conditioner, Ceiling Fan, Colour Television, Computer, Direct Cool Refrigerator, Distribution Transformer, Domestic Gas Stove, Frost Free Refrigerator, General Purpose Industrial Motor, Monoset Pump, Openwell Submersible Pump Set, Stationary Type Water Heater, Submersible Pump Set, Tfl, Ballast, Solid State Inverter, Office Automation Products, Diesel Engine Driven Monosetpumps For Agricultural Purposes, Diesel Generator Set, Led Lamps, Inverter Ac

**Why the question Came:** The central government has decided to distribute energy efficient fans and also distribute energy efficient pumpsets – energy efficiency has been a lot in the news and in Govt websites

4. India is an important member of the 'International Thermonuclear Experimental Reactor'. If this experiment succeeds, what is the immediate advantage for India?

- A. It can use thorium in place of uranium for power generation
- B. It can attain a global role in satellite navigation.
- C. It can drastically improve the efficiency of its fission reactors in power generation
- D. It can build fusion reactors for power generation.

**Ans. D**

**Explanation:** ITER is R&D on Nuclear fusion, which is safer, cleaner and inexhaustible source of energy. These are of prime consideration for India.

**Why the question Came:** The scientific innovations in the last one year such as god particle, India's decision to set up telescope etc have been in the news. Nuclear too has been in focus a lot lately.

5. In the context of the history of India, consider the following pairs: Term description

1. Eripatti : land, revenue from which was set apart for the maintenance of the village tank.
2. Taniyurs : Villages donated to a single Brahmin or a group of Brahmins
3. Ghatikas : colleges generally attached to the temples.

Which of the pairs given above is/are correctly matched?

- A. 1 and 2
- B. 3 only

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- C. 2 and 3
- D. 1 and 3

**Ans. B**

**Explanation:** Taniyur, is a large village under Chola administrative division and Eripatti, is name of a place in Tamilnadu. Ghatikas and Mathas were colleges/schools attached to temples.

**Why the question Came:** Conventional history question. Medieval History focus here.

## 6. Consider the following statements:

1. The international solar alliance was launched at the United Nations climate change Conference in 2015
2. The alliance includes all the countries of the United Nations

Which of the following statements is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

**Ans. A**

**Explanation:** International solar alliance includes an alliance of 121 countries located between tropic of cancer and tropic of capricorn.

## 7. ‘European stability mechanism’, sometimes seen in the news, is an

- A. Agency created by EU to deal with the impact of millions of refugees arriving from middle east
- B. Agency of EU that provides financial assistances to euro zones countries
- C. Agencies of EU to deal with all the bilateral and multi-lateral agreements on trade
- D. Agency of EU to deal with the conflicts arising among the member countries

**Ans. B**

**Explanation:** European stability mechanism has replaced European financial stability facility as a funding unit to eurozone countries.

## 8. Which of the following is/are the advantage / advantages of practicing drip irrigation?

1. reduction of weed
2. reduction in soil salinity
3. reduction in soil erosion

Select the correct answer using the code given below:-

- A. 1 and 2 only
- B. 3 only
- C. 1 and 3 only
- D. None of the above is an advantage of practicing drip irrigation

**Ans. C**

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**Explanation:** Drip irrigation help control weed (due to localized application of water near the root of the plant) and soil erosion (due to slow but sustained release of water). Advantages and Disadvantages of Drip Irrigation: Advantages of Drip Irrigation: 1. Maximum use of available water. 2. No water being available to weeds. 3. Maximum crop yield. 4. High efficiency in the use of fertilizers. 5. Less weed growth and restricts population of potential hosts. 6. Low labour and relatively low operation cost. 7. No soil erosion. 8. Improved infiltration in soil of low intake. 9. Ready adjustment to sophisticated automatic control. 10. No runoff of fertilizers into ground water. 11. Less evaporation losses of water as compared to surface irrigation. 12. Improves seed germination. 13. Decreased tillage operations. Disadvantages of Drip Irrigation: In spite of the fact that drip irrigation has so many potential benefits, they're a certain limitation also, there are as follow: 1. Sensitivity to clogging 2. Moisture distribution problem 3. Salinity hazards 4. High cost compared to furrow. 5. High skill is required for design, install and operation.

9. Regarding 'Digi locker', sometimes seen in the news, which of the following is / are correct?

1. It is an digilocker system offered by the govt under digital India programme
2. It allows you to access your e-documents irrespective of your physical location

Select the correct answer using the code given below “-

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

**Ans. C**

**Explanation:** Digital Locker is one of the key initiatives under the Digital India Programme. It provides Anytime, anywhere access to the documents by the resident.

10. Recently, linking of which of the following rivers was undertaken?

- A. Cauvery and Tungabhadra
- B. Godavari and Krishna
- C. Mahanadi and soni
- D. Nirmada and tapti

**Ans. B**

**Explanation:** The Pattiseema project lifts flood water from the river Godavari and pumps it into the Polavaram right canal that empties into the river Krishna in Vijayawada.

**Why the question Came:** In sept-2015 formal linking up of the two rivers was taken up by Andhra Pradesh. This has been discussed along with lectures on irrigation and transportation.

11. In the cities of our country, which among the following atmospheric gases are normally considered in calculating the value of Air Quality Index?

1. Carbon dioxide
2. Carbon monoxide
3. Sulfur dioxide
4. Methane

Select the correct answer using the code given below:

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- A. 1, 2 and 3 only
- B. 2, 3 and 4 only
- C. 1, 4 and 5 only
- D. 1, 2, 3, 4 and 5

**Ans. B**

**Explanation:** Air quality index takes into account Particulate matter-10 and 2.5, nitrogen dioxide, sulphur dioxide, carbon monoxide, ozone, Ammonia and Lead. National Ambient Air Quality by Ministry of Environment categorises air pollution into 6 categories by considering 8 pollutants. These pollutants are PM 10, PM2.5, NO2, SO2, CO, O3, NH3 and PB. Methane, CH4 is not in the list. These 8 pollutants are referred for measuring Air Quality Index in India.

12. With reference to 'Astrosat', the astronomical observatory launched by India, which of the following statements is/are correct?

- 1. Other than USA and Russia, India is the only country to have launched a similar observatory into space.
- 2. Astrosat is a 2000kg satellite placed in an orbit at 1650km above the surface of the Earth.

Select the correct answer using the code given below:

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

**Ans. D**

**Explanation:** USA, Japan, Russia and Europe have already launched a similar satellite. It weighs 1650 KG.

13. With reference to the economic history of medieval India, the term 'Arghatta' refers to

- A. Bonded labour
- B. Land grants made to military officers
- C. Waterwheel used in the irrigation of land
- D. Wasteland converted to cultivated land

**Ans. C**

**Explanation:** In Sanskrit the word Arghatta has been used in the ancient texts to describe the Persian Wheel. The 'ara-ghatta' comes from the combination of the words 'ara' meaning spoke and 'ghatta' meaning pot. There is evidence to argue that this system of lifting water from open wells was probably invented in the India of the past. With its use also in Iran, the then Persia, and perhaps its discovery there, it came to be called the Persian wheel.

**Why the question Came:** Conventional History question. Focus on Ancient History!

14. With reference to the cultural history of India, the memorizing of chronicles, dynasty histories and epic tales was the profession of who of the following?

- A. Sharamana
- B. Parivraajaka
- C. Agrahaarika

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D. Maagadha

**Ans. D**

**Explanation:** Maagadha is supposed to be a courtier with these roles to perform. “The memorizing of chronicles, dynastic histories, or epic tales was the work of a different group of people, the sutas and magadhas.” – Romilla Thapar (Ancient Indian Social History)

**Why the question Came:** Conventional History question. Focus on Medieval History!

15. **Recently, for the first time in our country, which of the following States has declared a particular butterfly as ‘State Butterfly’?**

- A. Arunachal Pradesh
- B. Himachal Pradesh
- C. Karnataka
- D. Maharashtra

**Ans. D**

**Explanation:** “The Blue Mormon is a large, swallowtail butterfly found primarily in Sri Lanka and India, mainly restricted to the Western Ghats of Maharashtra, South India and coastal belts. Maharashtra has become the first State in the country to have a ‘State butterfly.’”

**Why the question Came:** Was in news in June 2015. Also associated with the constant news about Western Ghats’ biodiversity.

16. **Consider the following statements:** The Mangalyaan launched by ISRO

- 1. Is also called the Mars Orbiter Mission
- 2. Made India the second country to have a spacecraft orbit the Mars after USA
- 3. Made India the only country to be successful in making its spacecraft orbit the Mars in its very first attempt

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

**Ans. C**

**Explanation:** The Mars Orbiter Mission (MOM), is also called Mangalyaan. India is the only country to be successful in making its spacecraft orbit Mars in its very first attempt. India is the first Asian country and ISRO is the fourth space agency to send a satellite to the Red Planet.

**Why the question Came:** MOM was launched 2013 and has been in the news for a while now. The Mission had sent back pics which were in news too.

17. **What was the main reason for the split in the Indian National Congress at Surat in 1907?**

- A. Introduction of communalism into Indian politics by Lord Minto
- B. Extremists’ lack of faith in the capacity of the moderates to negotiate with the British Government
- C. Foundation of Muslim League
- D. Aurobindo Ghosh’s inability to be elected as the president of the Indian National Congress

**Ans. B**

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**Explanation:** The Surat Split was a turning point in the history of Nationalist Movement in India. The main reason for the split in the Indian National Congress at Surat was the lack of faith which Extremists had in the capacity of the moderates to negotiate with the British Government.

**Why the question Came:** Factual Questions on Modern Indian History are expected. Also anything related to communalism, political divides and extremism from history can be potential candidates for questions in today's charged global and national political environment. That is just how UPSC operates!

## 18. The plan of Sir Stafford Cripps envisaged that after the Second World War

- A. India should be granted complete independence
- B. India should be partitioned into two before granting independence
- C. India should be made a republic with the condition that she will join the Commonwealth
- D. India should be given Dominion status

**Ans. D**

**Explanation:** The main idea of the Cripps proposal was that India should be given Dominion Status.

## 19. Consider the following pairs:

Famous place	Region
1. Bodhgaya	: Baghelkhand
2. Khajuraho	: Bundelkhand
3. Shirdi	: Vidarbha
4. Nasik(Nashik)	: Malwa
5. Tirupati	: Rayalascema

Which of the pairs given above are correctly matched?

- A. 1, 2 and 4
- B. 2, 3, 4 and 5
- C. 2 and 5 only
- D. 1, 3, 4 and 5

**Ans. C**

**Explanation:** Gaya is located in the Magadh Region. Shirdi is not in Vidarbha and Malwa doesn't extend to Nasik.

**Why the question Came:** Factual Questions on Ancient Indian History and cultural landmarks are expected.

## 20. The Parliament of India acquires the power to legislate on any item in the State List in the national interest if a resolution to that effect is passed by the

- A. Lok Sabha by a simple majority of its total membership
- B. Lok Sabha by a majority of not less than two-thirds of its total membership
- C. Rajya Sabha by a Simple majority of its total membership
- D. Rajya Sabha by a majority of not less than two-thirds of its member present and voting

**Ans. D**

**Explanation:** "There are five conditions under which parliament can make laws on state list. 1) If rajya sabha approves a resolution with special majority and declares that a subject is of national interest. 2) During times of national Emergency (under Article 250) 3) If two or more states request parliament to



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make law for an item in state list. 4) For implementation of international treaties .eg Micro irrigation, treaty on agriculture. During president’s rule.”

**Why the question Came:** Questions regarding Indian Parliament repeatedly occur in the Prelims Paper. This is a crucial chapter in the study of Indian Polity. Also equations between Lok Sabha and Rajya Sabha and the federal nature in relation to state list and central list have been recently very important. India’s federal nature and discussions on it can easily warrant a question like this.

21. **Recently which of the following states has explored the possibility of constructing an artificial inland port to be connected to sea by a long navigational channel?**

- A. Andhra Pradesh
- B. Chhatisgarh
- C. Karnataka
- D. Rajasthan

**Ans. D**

**Explanation:** An inland Shipping Port at Jalore would be connected to the Arabian Sea by developing a channel along the Kutch Creek. The correct answer is thus Rajasthan.

**Why the question Came:** PIB had released an update regarding this.

22. **With reference to the agreement at the UNFCCC Meeting in Paris in 2015, which of the following statements is / are correct?**

- 1. The agreement was signed by all the member countries of the UN and it will go into effect in 2017.
- 2. The agreement aims to limit the greenhouse gas emissions so that the rise in average global temperature by the end of the century does not exceed 2 Celsius or even 1.5 celsius above pre-industrial levels.
- 3. Developed countries acknowledged their historical responsibilities in global warming and committed to donate \$ 1000 billion a year from 2020 to help developing countries to cope with climatic change.

Select the correct answer using the code given below.

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

**Ans. B**

**Explanation:** Only statement 2 is correct. The agreement will enter into force when joined by at least 55 countries which together represent at least 55 percent of global greenhouse emissions. \$1000 billion financial commitment is false.

**Why the question Came:** The Paris Climate Change Conference was held in November 2015. This was a major issue in the news. India had taken a very active part. Also Rio Olympics to Rio

23. **Consider the following statements :**

- 1. The sustainable development goals were first proposed in 1972 by a global think tank called the ‘Club of Rome’
- 2. The sustainable Development Goals have to be achieved by 2030.

Which of the statements given above is/are correct?



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- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

**Ans. B**

**Explanation:** At the United Nations Sustainable Development Summit on 25 September 2015, world leaders adopted the 2030 Agenda for Sustainable Development, which includes a set of 17 Sustainable Development Goals (SDGs) to end poverty, fight inequality and injustice, and tackle climate change by 2030. The history of the SDGs can be traced to 1972 when governments met under the auspices of the United Nations Human and Environment Conference. The ‘Club of Rome’ is a global think tank that deals with a range of international political issues.

24. A recent movie titled *The Man who knew infinity* is based on the biography of

- A. Ramanujam
- B. Chandrashekhar
- C. N Bose
- D. V Raman

**Ans. A**

**Explanation:** The movie is based on the life of the pioneer Indian mathematician, S. Ramanujan.

**Why the question Came:** This movie was released in 2016 and became famous. There is a separate line in the syllabus on GS titled, “famous personalities”

25. Consider the following statements:

1. The minimum age prescribed for any person to be a member of Panchayat is 25 years.
2. A Panchayat reconstituted after premature dissolution continues only for the remainder period

Which of the statements given above is/ are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

**Ans. B**

**Explanation:** A Panchayat reconstituted after premature dissolution (i.e., before the expiry of the full period of five years) shall continue only for the remainder of the period.

26. Which of the following statements is/ are correct?

1. A bill pending in the Lok Sabha lapses on its prorogation.
2. A Bill pending in the Rajya Sabha, which has not been passed by the Lok Sabha, shall not lapse on dissolution of the Lok Sabha

Select the correct answer using the code below

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

**Ans. B**

**Explanation:** Prorogation of a session does not affect the bills or any other business pending before the House. Statement 2 is correct.

**27. Which of the following is/ are the indicator/ indicators used by IFPRI to compute the Global Hunger Index Report?**

1. Undernourishment
2. Child stunting
3. Child Mortality

Select the correct answer using the code given below

- A. 1 only
- B. 2 and 3 only
- C. 1,2 and 3
- D. 1 and 3 only

**Ans. C**

**Explanation:** The four component indicators are: Undernourishment, Child wasting, Child stunting, Child mortality

**Why the question Came:** India was ranked 80th out of 104 countries in the Global Hunger Index 2015. This was highlighted by many newspapers and reports. Indexes are always important for UPSC exam anyway.

**28. There has been a persistent deficit budget year after year. Which action/actions of the following can be taken by the government to reduce the deficit?**

1. Reducing Revenue Expenditure
2. Introducing new welfare scheme
3. Rationalizing subsidies
4. Reducing import duties

Select the correct answer using the code below

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

**Ans. C Explanation:** From the given options, only reducing revenue expenditure and rationalizing subsidies would reduce the deficit.

**Why the question Came:** Conceptual questions on Economy are expected. There have been many views expressed in the media on rationalization of subsidies. Economic Survey gives a lot of priority to both reduction of deficits and to rationalizing of subsidies with separate chapters dedicated to both areas. Go through our Economic Survey notes for more details.

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29. The establishment of 'Payment Banks' is being allowed in India to promote financial inclusion. Which of the following statements is/are correct in this context?

1. Mobile telephone companies and supermarket chains that are owned and controlled by residents are eligible to be promoters of Payment Banks.
2. Payment Banks can issue both credit cards and debit cards
3. Payment banks cannot undertake lending activities.

Select the correct answer using the code given below

- A. 1 and 2 only
- B. 1 and 3 only
- C. 2 only
- D. 1,2 and 3

**Ans. D**

**Explanation:** Unlike a regular bank, a payment bank can't loan money to people, or issue credit cards. While the payment banks can't issue credit cards, they can issue ATM and debit cards.

30. With reference to 'LiFi', recently in the news which of the following statements is / are correct?

1. It uses light as the medium for high speed data transmission
2. it is a wireless technology and is several times faster than 'WiFi'

Select the correct answer using the code given below:

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

**Ans. C**

**Explanation:** Light-Fidelity is a new technology that uses light waves, instead of radio frequency waves, as a medium to carry data. An improvised LED bulb functions as a router. It can achieve about 1,000 times data density of Wi-Fi, since light can be contained in an area

**Why the question Came:** This concept featured on The Hindu paper. Also, connectivity related tech is very relevant for India today!

31. The term 'Intended Nationally Determined Contributions' is sometimes seen in the news in the context of

- A. Pledges made by the European countries to rehabilitate refugees from the war-affected Middle East
- B. Plan of action outlined by the countries of the world to combat climate change
- C. Capital contributed by the member countries in the establishment of Asian Infrastructure Investment Bank
- D. Plan of action outlined by the countries of the world regarding Sustainable Development Goals

**Ans. B**

**Explanation:** UNFCCC deals with climate change and individual countries will decide the amount of contribution they will make. INDCs are the post 2020 climate action commitments by parties and form the foundation of the Paris Agreement

**Why the question Came:** COP 21 was held in Paris from November 30 to December 12, 2015. Negotiations resulted in the adoption of the Paris Agreement on 12 December. Economic Survey

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dedicated an entire chapter to discussing India's INDCs! Question was expected as we discussed in our Economic Survey Webinar lectures. Go through the notes for more details.

32. Which one of the following is a purpose of 'UDAY', a scheme of the Government?

- A. Providing technical and financial assistance to the start-up entrepreneurs in the field of renewable sources of energy
- B. Providing electricity to every household in the country of 2018
- C. Replacing the coal-based power plants with natural gas, nuclear, solar, wind and tidal power plants over a period of time
- D. Providing for financial turnaround and revival of power distribution companies

**Ans. D**

**Explanation:** Financial problems with power distribution companies is being overcome by this scheme

**Why the question Came:** As on March 2015, the accumulated losses and the outstanding debt of discoms are approximately Rs. 3.8 lakh crore and Rs. 4.3 lakh crore, respectively. Became major news and Economic Survey dedicated a full chapter to this scheme. Then Budget also took major action. Go through the Economic Survey Webinar notes for details.

33. With reference to 'IFC Masala Bonds', sometimes seen in the news, which of the statements given below is/are correct?

- 1. The International Finance Corporation, which offers these bonds, is an arm of the World Bank.
- 2. They are the rupee-denominated bonds and are a source of debt financing for the public and private sector

Select the correct answer using the codes given below.

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

**Ans. C**

**Explanation:** Rupee-denominated borrowings by Indian entities in overseas markets. Usually, while borrowing in overseas markets, the currency is a globally accepted one like dollar, euro or yen. The IFC green Masala bond is issued under IFC's \$3 billion offshore rupee Masala bond program.

**Why the question Came:** IFC issued a 5-year Masala bond on the London Stock Exchange, the first green bond issued in the offshore rupee markets on August 2015. Made plenty of news in economy circles. Discussed by FM too.

34. Regarding the taxation systems of Krishna Deva, the ruler of Vijayanagar, consider the following statements:

- 1. The tax rate of land was fixed depending on the quality of the land.
- 2. Private owners of workshops paid an industries tax.

Which of the statements given above is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

**Ans. C**

**Explanation:** Vijayanagara kingdom had a very modern and fully functional taxation system

**Why the question Came:** Question from medieval India. Probably since taxation systems was discussed so much in Economic Survey and by Piketty, UPSC had the bright idea of talking about Medieval tax system!

**35. Which one of the following books of ancient India has the love story of the son of the founder of Sunga dynasty?**

- A. *Swapnavasavadatta*
- B. *Malavikagnimitra*
- C. *Meghadoota*
- D. *Ratnavati*

**Ans. B**

**Explanation:** Kalidasa's *Malavikagnimitram* is based on some events of the reign of Pushyamitra Shunga. The play tells the story of the love of Agnimitra, the Shunga Emperor at Vidisha

**Why the question Came:** Question with Ancient Indian history and Cultural focus!

**36. In the context of which of the following do you sometimes find the terms 'amber box, blue box and green box' in the news?**

- A. WTO affairs
- B. SAARC affairs
- C. UNFCCC affairs
- D. India-EU negotiations on FTA

**Ans. A**

**Explanation:** Green box subsidies are allowed and amber box subsidies not allowed. blue box requires approval under certain category. Also, developing countries have expressed discomfort with the developed countries being able to get their subsidies categorised as 'green box' and escape legal action

**Why the question Came:** WTO Nairobi Conference catapulted this into the headlines! India procures foodgrain from farmers primarily to run its public distribution system (PDS) in accordance with the National Food Security Act and also maintain reserve stocks. This comes under green box subsidies. There was issue in WTO where India refused to sign TFA unless it is given exemption under green box for food security subsidies. Also discussed in Economic Survey in detail. Watch our WTO video for

**37. Which of the following is/are included in the capital budget of the Government of India?**

- 1. Expenditure on acquisitions of assets like roads, buildings, machinery, etc.
- 2. Loans received from foreign governments
- 3. Loans and advances granted to the States and Union Territories

Select the correct answer using the code given below.

- A. 1 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

**Ans. D**

**Explanation:** Capital receipts and expenditures of Govt of India budget. Even borrowings and loans given come under capital expenditure and receipts.

**Why the question Came:** Classic question from Budgeting/Economic survey. Well discussed in every Economic Survey!

**38. What is/are the importance/importance's of the 'United Nations Convention to Combat Desertification'?**

1. It aims to promote effective action through innovative national programmes and supportive international partnerships.
2. It has a special/particular focus on South Asia and North Africa regions, and its Secretariat facilitates the allocation of major portion of financial resources to these regions.
3. It is committed to bottom-up approach, encouraging the participation of local people in combating the desertification.

Select the correct answer using the code given below.

- A. 1 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

**Ans. C**

**Explanation:** United nations program for overcoming desertification under the convention UNCCD. Africa has major focus under this.

**Why the question Came:** With a third of the country facing the threat of desertification India needs to focus on combatting desertification. One of the major issues effecting Indian agriculture today.

**39. Recently, which one of the following currencies has been proposed to be added to the basket of IMF's SDR?**

- A. Rouble
- B. Rand
- C. Indian Rupee
- D. Renminbi

**Ans. D**

**Explanation:** Renminbi was decided to be included recently by IMF in SDR. In theory, SDR inclusion will support renminbi in the medium term. It would help promote use and acceptance of renminbi globally as China is playing a bigger role in the world economy.

**Why the question Came:** The Chinese renminbi will be included in the Special Drawing Rights basket of currencies of the International Monetary Fund from Oct. 1. Chinese economy has been much analysed right from The Hindu to the Economic Survey. Focus on China is due to many aspects – Go through the notes and related boxes from Economic Survey lectures.

**40. With reference to the International Monetary and Financial Committee (IMFC), consider the following statements:**

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1. IMFC discusses matters of concern affecting the global economy, and advises the International Monetary Fund (IMF) on the direction of its work.
2. The World Bank participates as observer in IMFC's meetings.

Which of the statements given above is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

**Ans. C Explanation:** The IMFC advises and reports to the IMF Board of Governors on the supervision and management of the international monetary and financial system

**Why the question Came:** Increasing role of IMF in world economy and UPSC going in deeper into the structure and functioning rather than the usual details is interesting... The extra focus on external economies and global institutions was there in the Economic Survey too...

41. **'Rashtriya Garima Abhiyaan' is a National campaign to**

- A. Rehabilitate the homeless and destitute the persons and provide them with suitable sources of livelihood.
- B. Release the sex workers from their practice and provide them with alternative sources of livelihood.
- C. Eradicate the practice of manual scavenging and rehabilitate the manual scavengers
- D. Release the bonded laborers from their bondage and rehabilitate them

**Ans. C**

**Explanation:** Rashtriya Garima Abhiyan is National Campaign for Dignity and Eradication of Manual Scavenging. The practice continues in the country in spite of efforts of several people, implementation of government schemes such as the National Scheme for Liberation and Rehabilitation of Scavengers since 1992 and Self Employment Scheme for Rehabilitation of Manual Scavengers since 2007, and regardless of it being banned in 1993 through Employment of Manual Scavengers and Construction of Dry Latrines (prohibition) Act.

**Why the question Came:** Manual Scavenging is closely associated with exploitation of dalits as majority of them work in this despite it being banned. Issue of dalit atrocities in news in recent times. So UPSC comes up with a politically correct but related question! Government had passed the Prohibition of Employment as Manual Scavengers and their Rehabilitation Act in 2013.

42. **With reference to the cultural history of medieval India, consider the following statements:**

1. Siddhas (sittars) of Tamil region were monotheistic and condemned idolatry.
2. Lingayats of Kannada region questioned the theory of rebirth and rejected the caste hierarchy.

Which of the statements given above is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

**Ans. C**



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**Explanation:** Siddas condemned idolatory and lingayats followed the teachings of basavanna questioning rebirth theory

43. Which of the following best describes the term ‘import cover’, sometimes seen in the news?

- A. It is the ratio of value of imports to the Gross Domestic Product of a country.
- B. It is the total value of imports of a country in a year.
- C. It is the ratio between the value of exports and that of imports between two countries.
- D. It is the number of months of imports that could be paid for by a country’s international reserves.

**Ans. D**

**Explanation:** Foreign currency reserves (months of import coverage) The stock of foreign exchange reserves in terms of months of retained imports of goods as at end of year. It measures the number of months of money available in the national bank to cover the cost of imports.

**Why the question Came:** India’s import cover improved to 10.9 months at the end of March 2016, from 9.8 months at end-September 2015, as the country’s reserves improved about \$10 billion in the period, the Reserve Bank of India (RBI) said in its half yearly report on foreign exchange reserves. The Economic Survey also talked in detail about India’s Forex Reserves and the Import cover was analyzed. FM too spoke about this. In the light of volatile world economic situation, this is important.

44. Consider the following pair:

*Community sometimes mentioned in the news : In the affairs of*

- 1. Kurd : Bangladesh
- 2. Madhesi : Nepal
- 3. Rohingya : Myanmar

Which of the pairs given above is/are correctly matched?

- A. 1 and 2
- B. 2 only
- C. 2 and 3
- D. 3 only

**Ans. C**

**Explanation:** Kurds are ethnic groups in middle east and not of Bangladesh

45. With reference to ‘Organization for the Prohibition of Chemical Weapons (OPCW)’, consider the following statements:

- 1. It is an organization of European Union in working relation with NATO and WHO.
- 2. It monitors chemical industry to prevent new weapons from emerging.
- 3. It provides assistance and protection to States (Parties) against chemical weapons threats.

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

**Ans. D**

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**Explanation:** OPCW is an independent, autonomous, international organisation in working relation with UN.

**Why the question Came:** OPCW was in news regarding chemical weapons warfare in Syria recently. Thus Syria come into the UPSC QP!

46. With reference to ‘Pradhan Mantri Fasal Bima Yojana’, consider the following statements:

1. Under this scheme, farmers will have to pay a uniform premium of two percent for any crop they cultivate in any season of the year.
2. This scheme covers post-harvest losses arising out of the cyclones and unseasonal rains.

Which of the statements given above is/are correct?

- ◀ ▶ ↶ ↷
- A. 1 only
  - B. 2 only
  - C. Both 1 and 2
  - D. Neither 1 or 2

**Ans. B**

**Explanation:** 2 percent premium under PMFBY is applicable only for khariff crops. For rabi crops the premium is 1.5%.

**Why the question Came:** In news recently- important scheme. Economic Survey gives importance to scheme.

47. In which of the following regions of India are you most likely to come across the ‘Great Indian Hornbill’ in its nature habitat?

- A. Sand deserts of northwest India
- B. Higher Himalayas of Jammu and Kashmir
- C. Salt marshes of western Gujarat.
- D. Western Ghats

**Ans. D**

**Explanation:** Threat to the great indian hornbills due to deforestationGreat hornbills are found in the forests of Nepal, India, Mainland Southeast Asia and Indonesian Island of Sumatra. The distribution of the species is fragmented over its range in South and Southeast Asia. In South Asia they are found in a few forest areas in the Western Ghats and in the forests along the Himalayas. Great Hornbills are found in three separate areas in South Asia; in the Western Ghats, the Himalayan foothills in Uttaranchal to south Nepal and Bhutan, and north-east India. They also occur in Myanmar, islands in the Mergui archipelago, southern China, Vietnam, Laos, Cambodia, Thailand, peninsular Malaysia and in Sumatra, Indonesia. They occur in primary evergreen and moist deciduous forest, mainly in lowland forest, but they can be found up to 2,000 meters in some areas. In north-east India, they are generally not recorded above 1000 m. They are also seen in selectively logged forests and plantations close to larger forests.



Great Hornbill In India

48. Which of the following are the key features of ‘National Ganga River Basin Authority (NGRBA)’?

1. River basin is the unit of planning and management.
2. It spearheads the river conservation efforts at the national level.
3. One of the Chief Ministers of the States through which the Ganga flows becomes the Chairman of NGRBA on rotation basis.

Select the correct answer using the code given below.

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1,2 and 3

**Ans. A**

**Explanation:** Prime minister chairs NGRBA-official website of NGRBA

**Why the question Came:** Was in the news as in the october 2015, NGT directed central government not to issue the funds for ganga cleanup without approval and recently it was in the news as the central government set up a de-siltation plan. Ganga cleanup was also politically contentious – UPSC asks a neutral question about administrative details – that is typical!

49. Why does the Government of India promote the use of ‘Neem-coated Urea’ in agriculture?

- A. Release of Neem oil in the soil increases nitrogen fixation by the soil microorganisms.
- B. Neem coating slows down the rate of distribution of urea in the soil
- C. Nitrous oxide, which is a greenhouse gas, is not at all released into the atmosphere by crop fields.
- D. It is a combination of a weedicide and a fertilizer for particular crops.

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**Ans. D**

**Explanation:** Spraying urea with neem oil slows the release of nitrogen, by about 10 to 15 per cent, concomitantly reducing consumption of the fertiliser. According to recent research, the “sustained release” nature of neem-coated urea has seen rice yields jump 9.6 per cent and wheat by 6.9 per cent.

**Why the question Came:** Directly from Economic Survey opening para in chapter on Fertilizers! Recently government has promised to double the farmers income and the access to subsidised fertilisers has been one of the biggest problems, last year the government has also announced the new urea policy. Please note that Prime Minister Narendra Modi included a mention of this policy in his Independence Day address.

**50. Consider the following statements:**

1. The Chief Secretary in a State is appointed by the Government of that State.
2. The Chief Secretary in a State has a fixed tenure.

Which of the statements given above is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

**Ans. D**

**Explanation:** Not appointed by the governor but by the CM. Chief secretary has no fixed tenure. All transactions of business under the constitutional scheme takes place in the name of Governor and President of India. Under the constitutional scheme governor appoints the CM, advocate general and members and chairman of state psc. The decision to appoint the chief secretary is a power exercised by the CM but only executed in the name of the governor.

**Why the question Came:** Direct Polity question. In news wrt Delhi. It is also an issue in Indian polity that the chief Secretary's post is becoming political.

**51. With reference to ‘Stand Up India Scheme’ which of the following statements is/are correct?**

1. Its purpose is to promote entrepreneurship among SC/ST and women entrepreneurs.
2. It provides for refinance through SIDBI.

Select the correct answer using the code given below:

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

**Ans. C**

**Explanation:** Official website-both statements are correct

**Why the question Came:** It was much in news esp. with India's new Startup Culture. Launched by the PM in April 2016. Boxed item in Economic Survey too.

**52. The FAO accords the status of ‘Globally Important Agricultural Heritage System (GIAHS)’ to traditional agricultural systems. What is the overall goal of this initiative?**

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1. To prove modern technology, training in modern farming methods and financial support to local communities of identified GIAHS so as to greatly enhance their agricultural productivity
2. To identify and safeguard ecofriendly traditional farm practices and their associated landscapes, agricultural biodiversity and knowledge systems of the local communities.
3. To provide Geographical Inclination status to all the varieties of agricultural produce in such identified GIAHS

Select the correct answer using the code given below.

- A. 1 and 3 only
- B. 2 only
- C. 2 and 3 only
- D. 1,2 and 3

**Ans. B**

**Explanation:** The overall goal of the partnership is to identify and safeguard Globally Important Agricultural Heritage Systems and their associated landscapes, agricultural biodiversity and knowledge systems through catalyzing and establishing a long-term programme to support such systems and enhance global, national and local bene-fits derived through their “dynamic conservation”, sustainable management and enhanced viability.

**Why the question Came:** On 22-23 February 2016, the first meeting of the GIAHS Scientific Advisory Group (SAG) was held at FAO.

53. Which of the following is/are tributary/tributaries of Brahmaputra?

1. Dibang
2. Kameng
3. Lohit

Select the correct answer using the code given below.

- A. 1 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1,2 and 3

**Ans. D**

**Explanation:** All 3 are tributaries of Brahmaputra. All are major tributaries of brahmaputra along with Subansiri.

**Why the question Came:** Assam etc being news hotspots could be the reason. River based questions are common in UPSC. See our infographic on major rivers to remember easily:

54. The Term ‘Core Banking Solutions’ is sometimes seen in the news. Which of the following statements best describes/ describe this term?

1. It is networking of a bank’s branches which enable customers to operate their accounts from any branch of the bank on its network regardless of where they open their accounts.
2. It is an effort to increase RBI’s control over commercial banks through computerization.
3. It is a detailed procedure by which a bank with huge non-performing assets is taken over by another bank.

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Select the correct answer using the code given below.

- A. 1 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1,2 and 3

**Ans. A**

**Explanation:** Core banking is a banking service provided by a group of networked bank branches where customers may access their bank account and perform basic transactions from any of the member branch offices. The core banking services rely heavily on computer and network technology to allow a bank to centralize its record keeping and allow access from any location. It has been the development of banking software that has allowed core banking solutions to be developed.

**Why the question Came:** Was in news in March. Department of Posts has decided to provide CBS to its customers. Banking as we told is a hot topic, so UPSC needs to find questions, but not from same old areas!

**55. Consider the following pairs:**

<i>Terms sometimes seen in the news</i>	<i>their origin</i>
1. Annex- I Countries	: Cartagena Protocol
2. Certified Emissions Reductions	: Nagoya Protocol
3. Clean Development Mechanism	: Kyoto Protocol

Which of the pairs given above is/are correctly matched?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 3 only
- D. 1,2 and 3

**Ans. C**

**Explanation:** Annex-1 countries, Certified emission reductions are also part of Kyoto protocol and not Cartagena and Nagoya protocols.

**Why the question Came:** Again lined to the Climate Summit! INDC linked. Paris summit moved to a new system of emission reduction targets – self-determined in nature... Hence a throw-back question to previous methods!

**56. In the context of the development in Bioinformatics, the term ‘Transcriptome’, sometimes seen in the news , refer to**

- A. A range of enzymes used in genome editing
- B. The full range of mRNA molecules expressed by an organism
- C. The description of the mechanism of gene expression
- D. A mechanism of genetic mutations taking place in cells

**Ans. B**

**Explanation:** Transcriptome is the set of all messenger rna(mRNA) molecules expressed by an organism

**Why the question Came:** Was in news in Feb-2016. A new way of mapping transcriptome was devised. Also linked to various viral diseases etc.

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57. 'Mission Indradhanush' launched by the government of India pertains to

- A. Immunization of children and pregnant women
- B. Construction of smart cities across the country
- C. India's own search for the Earth-like planets in outer space
- D. New Educational policy

**Ans. A**

**Explanation:** Mission Indradhanush is a Govt of India initiative to ensure full immunisation with all available vaccines for children up to 2 yrs and pregnant women

**Why the question Came:** Health related schemes are always UPSC favorites. Also there was another scheme of similar name – so two times chances. We had discussed this in Economic Survey lectures on PSBs as well as in IYB lectures.

58. Which of the following best describes/describe the aim of 'Green India Mission' of the Government of India?

- 1. Incorporating environmental benefits and costs into the Union and State Budgets there by implementing the 'green accounting'
- 2. Launching the second green revolution to enhance agricultural output so as to ensure food security to one and all in the future
- 3. Restoring and enhancing forest cover responding to climate change by a combination of adaptation and mitigation measures

Select the correct answer using the code given below.

- A. 1 only
- B. 2 and 3 only
- C. 3 only
- D. 1,2 and 3

**Ans. C**

**Explanation:** The National Mission for Green India (GIM) is one of the eight Missions outlined under the National Action Plan on Climate Change (NAPCC). It aims at protecting; restoring and enhancing India's diminishing forest cover and responding to climate change by a combination of adaptation and mitigation measures. It envisages a holistic view of greening and focuses on multiple ecosystem services, especially, biodiversity, water, biomass, preserving mangroves, wetlands, critical habitats etc. along with carbon sequestration as a co-benefit. This mission has adopted an integrated cross-sectoral approach as it will be implemented on both public as well as private lands with a key role of the local communities in planning, decision making, implementation and monitoring.

**Why the question Came:** It was in news in May 2015 and October 2015. Multiple env issues bring all env related schemes into UPSC limelight! National Action Plan on Climate Change was also covered in both Economic Survey and IYB! National Mission for a Green India (GIM) falling under the Environment Ministry has approved annual plans for Kerala, Mizoram, Manipur and Jharkhand.

59. With reference to pre-packaged items in India, It is mandatory to the manufacturer to put which of the following information on the main label, as per the Food Safety and Standards (Packaging and Labeling) Regulations, 2011?

- 1. List of the ingredients including additives



2. Nutrition information
3. Recommendations, if any, made by the medical profession about the possibility of any allergic reactions
4. Vegetarian/ Non- Vegetarian

Select the correct answer using the code given below.

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

**Ans. C**

**Explanation:** List of additives, Nutritional info and vegetarian and non vegetarian info is clearly mentioned in the bill with a sub-heading. However, the fourth option is not available verbatim in the bill.

**Why the question Came:** Was big time in news over the Maggi noodles issues. We had discussed in lectures that this is precisely how the questions from Maggi controversy would come.

60. **‘Project Loon’ sometimes seen in the news is related to**

- A. Waste management technology
- B. Wireless communication technology
- C. Solar power production technology
- D. Water conservation technology

**Ans. B**

**Explanation:** Project Loon is a research and development project being developed by X (formerly Google X) with the mission of providing Internet access to rural and remote areas. The project uses high-altitude balloons placed in the stratosphere at an altitude of about 18 km (11 mi) to create an aerial wireless network with up to 4G-LTE speeds.

**Why the question Came:** Was debated in the parliament and in March 2016 the project was launched in Brazil. Important for communication and future of India. Also linked to the Free basics

61. **‘Net metering’ is sometimes seen in the news in the context of promoting the**

- A. Production and use of solar energy by the households/consumers
- B. Use of piped natural gas in the kitchens of households
- C. Installation of CNG kits in motor cars
- D. Installation of water meters in urban households

**Ans. A**

**Explanation:** Net metering is a billing mechanism that credits solar energy system owners for the electricity they add to the grid.

**Why the question Came:** Few states such as Tamil Nadu, Karnataka, Andhra Pradesh, West Bengal and Uttarakhand have implemented the Net Metering Policy in recent times. Linked to Solar Energy – so important for UPSC!

62. **‘India’s ranking in ease of doing Business Index’ is sometimes seen in the news. Which of the following have declared that ranking?**

- A. Organization of Economic Cooperation and development (OECD)
- B. World Economic Forum

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- C. World Bank
- D. World trade Organization (WTO)

**Ans. C**

**Explanation:** The ease of doing business index is an index created by the World Bank Group. Higher rankings (a low numerical value) indicate better, usually simpler, regulations for businesses and stronger protections of property rights.

**Why the question Came:** Promoting India as a investment destination by improving India's Ease of Doing Business ranking in order to boost Make in India has been a priority for the present government. Well discussed in Economic Survey and in many editorials.

## 63. Banjaras during the medieval period of Indian history were

- A. Agriculture
- B. Warriors
- C. Weavers
- D. Traders

**Ans. D**

**Explanation:** Banjaras played a role in Alaudin khilji 's market reforms. They brought food grains from villages to towns. They were Traders. NCERT mentions Banjaras as who specialized in Caravan Trading. They are special nomadic traders who travel along with bullocks with them. Banjaras are also known for their textile embroidery. The Banjara embroidery and tattooing are especially prized and also form a significant aspect of the Banjara identity.

## 64. Who of the following had first deciphered the edicts of Emperor Ashoka

- A. George Buhler
- B. James Prinsep
- C. Max Muller
- D. William Jones

**Ans. B**

**Explanation:** The rock-cut edicts of Ashoka in north-central India, dated to 250–232 BCE and the script was deciphered in 1837 by James Prinsep

## 65. With reference to the 'Gram Nyayalaya Act' which of the statements is/are correct?

1. As per the act, Gram Nyayalayas can hear only civil cases not criminal cases
2. The Act allows only social activists as medeators/reconcillators

Select the correct answers using the code given below

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

**Ans. B**

**Explanation:** The Gram Nyayalayas have both civil and criminal jurisdiction. Social Workers at the village level having the integrity and necessary qualifications can be appointed as mediators.

**Why the question Came:** Acts related to local governance are usually important.

66. With reference to the 'Trans pacific Partnership' consider the following statements:

1. It is an agreement among all the Pacific Rim countries except China and Russia
2. It is a strategic alliance for the purpose of maritime security only

Which of the statements is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

**Ans. D**

**Explanation:** TPP is a trade agreement amongst only twelve Pacific Rim countries.

**Why the question Came:** TPP is a trending topic in International relations due to its evolving nature and its likely impact on global economy and geo-politics. Economic Survey was super concerned about this and dedicates a chapter to impacts and how India should react.

67. Consider the following statements: The India – Africa summit

1. Held in 2015 was the third such summit
2. Was actually initiated by Jawaharlal Nehru in 1951

Which of the statements is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

**Ans. A**

**Explanation:** The India–Africa Forum Summit was first held in 2008 at New Delhi at the initiative of then Prime Minister Dr.Mannohan Singh. The Third India-Africa Forum Summit was held in New Delhi in October 2015.

**Why the question Came:** India-Africa relations are a high priority not just for Indian Diplomacy but from the perspective of UPSC examination as well. Africa is also the focus due to multiple reasons.

68. What is/are the purpose/purposes of 'Marginal Cost of Funds based Lending Rate (MCLR)' announced by RBI

1. These guidelines help improve the transparency in the methodology followed by the banks for determining the interest rates on advances
2. these guidelines helps ensure the availability of bank credit the interest rate which are fare to the borrowers as well as the banks

Select the correct answers using the code given below

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

**Ans. C**

**Explanation:** MCLR guidelines by the RBI is an attempt to make banks pass on policy rate cut benefits to borrowers. The objective is to ensure better transmission, transparency and fair treatment to new and existing borrowers.

**Why the question Came:** The much-awaited RBI guidelines on calculating the benchmark lending rate was launched in December 2015. Discussed in last two Economic Surveys and in multiple RBI reports and speeches. A nice technical question which every aspirant was expected to know if following economy and banking closely. See our Economic Survey notes for details.

**69. What is/are the unique about the ‘Kharai Camel’ a breed found in India**

1. It is capable of swimming up three kilometers in seawater
2. Its survives by grazing on mangroves
3. It lives in the wild and cannot be domesticated

Select the correct answers using the code given below

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

**Ans. A**

**Explanation:** Kharai camels found in the Kutch region are very unique. They can swim through deep sea waters and it feeds on mangroves and other saline plants. The breeders have meticulously followed the traditional grazing pattern in the coastal districts. They do not provide special housing or shelter to the camels. Given the breed’s ability to survive both on land and sea, the Kharai camel is one of the most preferred choices of graziers in the arid coastal region of Kachchh. People consume its milk, while male calves are sold for economic returns (females are not sold because they are considered sacred). A male calf fetches anywhere between Rs.6,000 and Rs.14,000, says Ramesh Bhatti of Sahjeevan, an NGO working on livelihood issues of graziers in Kachchh. It can be domesticated also – so its not wild.

**Why the question Came:** A recent survey by Sahjeevan Trust had identified rising threat to the rare Kharai camel species due to industrialization, salinity ingress and reduction in mangrove cover in coastal Kutch. Biodiversity based question – expect a few bouncers like these from UPSC!

**70. Recently, our scientists have discovered a new and distinct species of banana plant which attains a height of about 11 meters and has orange – colored form of pulp. In which part of India has been discovered?**

- A. Andaman Islands
- B. Anaimalai Forests
- C. Maikala Hills
- D. Tropical rainforest of North east

**Ans. A**

**Explanation:** Scientists at the Botanical Survey of India (BSI) have discovered a new species of banana from a remote tropical rain forest on the Little Andaman islands. The species, *Musa indandamanensis*, was located about 16 km inside the Krishna Nalah forest in the island.

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**Why the question Came:** Recently discovered in 2015. The new species is very rare and requires conservation efforts. Again, biodiversity related.

71. Which one of the following is the best description of ‘INS astradharini’ that was in the news recently?

- A. amphibious warfare ship
- B. nuclear -powered submarine
- C. torpedo launch and recovery vessel
- D. nuclear – powered aircraft carrier

**Ans. C**

**Explanation:** INS Astradharani is Indian Navy’s first totally indigenously-designed and built torpedo launch and recovery vessel.

**Why the question Came:** INS Astradharani was commissioned recently in 2015. At least one defence based question on Missiles/Aircrafts/ships is expected. Be alert for such news.

72. What is ‘Greased lightning-10 (GL-10) recently in the news ?

- A. electric plane tested by NASA
- B. solar powered two seater aircraft designed by japan
- C. Space observatory launched by china
- D. reusable rocket designed by ISRO

**Ans. A**

**Explanation:** Greased Lightning or GL-10 is a battery-powered plane that has 10 engines and can take off like a helicopter and fly efficiently like an aircraft. This is a concept being developed by NASA.

**Why the question Came:** Its a futuristic drone/plane that runs on clean energy with applications ranging from small package delivery to long endurance surveillance for agriculture mapping to even carrying few passengers. Tech related to Agri -potential UPSC target!

73. With reference to ‘initiative for nutritional security through intensive millets promotions’, which of the following statements is/are correct?

1. This initiative aims to demonstrate the improved production and post-harvest technologies, and to demonstrate value addition techniques ,in an integrated manner with cluster approach
2. Poor, small, marginal and tribal farmers have larger stake in this scheme
3. an important objective of the scheme is to encourage farmers of commercial crops to shift to millet cultivation by offering them free kits of critical inputs of nutrients and micro irrigation equipment .

Select the correct answer using the above

- A. 1 only
- B. 2 and 3 only
- C. 1 and 2 only
- D. 1,2 and 3

**Ans. A/C**

**Explanation:** The Ministry of Agriculture’s info on its website helps us deduce that statement 1 is definitely correct and statement 3 is wrong because the free kits includes only micronutrients, pesticides

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and fertilizers but it does not include micro irrigation. Statement 2 is quite ambiguous and makes it tough to come to a conclusion. So the answer could be either A or C

**Why the question Came:** Promoting nutri-cereals in a malnourished country has been a focus area since the scheme was launched in 2011-12 to enhance India's nutritional security.

74. **The 'Swadeshi' and 'Boycot' were adopted as methods of struggle for the first time during the**

- A. Agitation against the partition of Bengal
- B. Home Rule Movement
- C. Non Cooperation Movement
- D. Visit of Simon Commission to India

**Ans. A**

**Explanation:** Pure Factual Question.

**Why the question Came:** Std history question

75. **With the reference to the Religious history of India, consider the following statement:**

- 1. The concept of Bodhisattva is central to Hinayana Sect of Buddhism
- 2. Bodhisattva is the compassionate one on his way to enlightenment
- 3. Bodhisattva delays achieving his own salvation to help all sentient beings on their path to it

Which of the statements given above is/are correct

- A. 1 only
- B. 2 and 3 only
- C. 2 only
- D. 1, 2, and 3

**Ans. B**

**Explanation:** In Mahayana Buddhism, bodhisattva is the Sanskrit term for anyone who, motivated by great compassion. Shepherd-like bodhisattva – one who aspires to delay buddhahood until all other sentient beings achieve buddhahood.

**Why the question Came:** UPSC consistently focuses on Buddhism and its teachings in the Ancient India section. One question is must!

76. **'Doctors without borders (medecins sans frontiers)' often in the news is**

- A. a division of world health organization
- B. a non governmental international organization
- C. an inter- government agency sponsored by European union
- D. a specialized agency of the united nations

**Ans. D**

**Explanation:** Is an international NGO which works on humanitarian principles

**Why the question Came:** It was from current affairs section. it is appearing in regularly related various outbreaks and humanitarian missions.

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77. With reference to an initiative called ‘the economics of ecosystems and biodiversity (TEEB)’ which of the following statements is/are correct?

1. it is an initiative hosted by UNEP IMF and world economic forum
2. it is a global initiative that focuses on drawing attention to the economic benefits of biodiversity
3. it presents an approach that can help decision-makers recognize demonstrate and capture the value of ecosystem and biodiversity

Select the correct and answer using the code given below

- A. 1 and 2 only
- B. 3 only
- C. 2 and 3 only
- D. 1,2 and 3

**Ans. C**

**Explanation:** The Economics of Ecosystems and Biodiversity (TEEB) is a global initiative focused on “making nature’s values visible”. Its principal objective is to mainstream the values of biodiversity and ecosystem services into decision-making at all levels. It aims to achieve this goal by following a structured approach to valuation that helps decision-makers recognize the wide range of benefits provided by ecosystems and biodiversity, demonstrate their values in economic terms and, where appropriate, capture those values in decision-making

**Why the question Came:** Env is always hot these days for UPSC. Beware Initiatives, schemes, indexes, etc can come. Current Affairs – July 2015 (“Environment Ministry Launches Teeb-India Initiative to Highlight Economic Consequences of the Loss of Biological Diversity” – PIB)

78. With reference to ‘red sanders ‘sometimes seen in the news consider the following statements:

1. it is tree species found in a part of south India
2. it is one of the most important trees in the tropical rain forest areas of south India

Which of the statements given above is/are correct

- A. 1 only
- B. 2 only
- C. both 1 and 2
- D. neither 1 nor 2

**Ans. A**

**Explanation:** Red sanders is a tree of south India, and found in deciduous forest of India

**Why the question Came:** It is conventional type question on biodiversity + current affairs regular UPSC style. Red Sanders smuggling near Tirupati and encounter related to that were headlines

79. Which of the following statements is/are correct ? Proper design and effective implementation of UN-REDD+ programme can significantly contribute

1. protection of biodiversity
2. resilience of forest ecosystem
3. property reduction

Select the correct answer using the code given below

- A. 1 and 2 only



- B. 3 only
- C. 2 and 3 only
- D. 1, 2 and 3

**Ans. D**

**Explanation:** REDD+ is a collaborative program by FAO and UNDP. The overall development goal of the Programme is “to reduce forest emissions and enhance carbon stocks in forests while contributing to national sustainable development”

**Why the question Came:** Redd and Redd+ are from current affairs section directly, and were very frequently in news. Std part of all env material.

**80. What is ‘greenhouse gas protocol ‘?**

- A. it is an international accounting tool for government and business leaders to understand, quantify and manage greenhouse gas emissions
- B. it is an initiative of the united nations to offer financial incentives to developing countries to reduce greenhouse gas emissions and to adopt eco-friendly technologies
- C. it is an inter-governmental agreement ratified by all the member countries of the united nations to reduce greenhouse gas emissions to specified levels by the year 2022
- D. it is one of the multilateral REDD+ initiatives hosted by the world bank

**Ans. A**

**Explanation:** Standards and tools for companies and organizations to manage their GHG emissions and become more efficient, resilient, and prosperous.

**Why the question Came:** Due to Paris Summit and Rio – things linked to climate change is very prominent for UPSC This was in news during the 38th meeting of the Open Ended Working Group of Parties to the Montreal Protocol which had met to work out the process of moving away from high Global Warming Potential HFCs reducing global warming. India had raised certain issues during the meeting.

**81. With reference to ‘Financial Stability and Development Council’, consider the following statements:**

1. It is an organ of NITI Aayog.
2. It is headed by the Union Finance Minister.
3. It monitors macroprudential supervision of the economy.

Which of the statements given above is/are correct?

- A. 1 and 2 only
- B. 3 only
- C. 2 and 3 only
- D. 1,2 and 3

**Ans. C**

**Explanation:** FSDC is headed by finance minister. monitoring macroprudential vision of economy is one among the objective of it

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**Why the question Came:** From current affairs section macro economic changes that are taking place in the present government and related administrative changes in governance over period of time after LPG reforms

82. **With reference to ‘Agenda 21’, sometimes seen in the news, consider the following statements :**

1. It is a global action plan for sustainable development.
2. It originated in the World Summit on Sustainable Development held in Johannesburg in 2002.

Which of the statements given above is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

**Ans. A**

**Explanation:** It is a voluntary plan of UN on sustainable development. It is a product of earth summit 1992

**Why the question Came:** Current affairs related topic. Sustainable development is key mantra in all environment related conventions. Again, a link to earlier voluntary/enforced plans.

83. **Satya Shodhak Samaj organized**

- A. a movement for upliftment of tribals in Bihar
- B. a temple-entry movement in Gujarat
- C. an anti-caste movement in Maharashtra
- D. a peasant movement in Punjab

**Ans. C**

**Explanation:** It is a anti caste movement led by Jyothiba Phule in Maharashtra

**Why the question Came:** Socio religious movements of modern Indian history always appear in preliminary exam and this time UPSC moved out of Brahma Samaj and Arya Samaj. Check our Infographics section for all important movements relevant for exam.

84. **Which of the following statements is/are correct? Viruses can infect**

1. bacteria
2. fungi
3. Plants

Select the correct answer using the code given below

- A. 1 and 2 only
- B. 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

**Ans. D**

**Explanation:** Viruses are can infect all living organisms plants animals and micro-organisms

**Why the question Came:** From general science section. Micro organisms and their application in biotechnology are familiar topics in preliminary exam. Virus related news has been a lot.

85. The term ‘Base Erosion and Profit Shifting’ is sometimes seen in the news in the context of

- A. mining operation by multinational companies in resource-rich but backward areas
- B. curbing of the tax evasion by multinational companies
- C. exploitation of genetic resources of a country by multinational companies
- D. lack of consideration of environmental costs in the planning and implementation of developmental projects

**Ans. B**

**Explanation:** BEPS- Tax payer action that reduces the taxable profit in a jurisdiction, either by recharacterising it or by shifting it to a jurisdiction where it will be taxed at a lower rate or not taxed at all. This is seen by tax authorities as potentially abusive, even if legal.

**Why the question Came:** Straight out of Economic Survey and Economy news in RBI, etc. Black Money related news has been prominent, but controversial – so characteristically a technical question is asked by UPSC! The topic gained importance due to continued discussion on ways to tackle tax avoidance and tax evasion since the budget was tabled this year.

86. Recently, India’s first ‘National Investment and Manufacturing Zone’ was proposed to be set up in

- A. Andhra Pradesh
- B. Gujarat
- C. Maharashtra
- D. Uttar Pradesh

**Ans. A**

**Explanation:** Andhra Pradesh became the first state to house India’s first national investment and manufacturing zone in September 2015. Simple Factual question.

**Why the question Came:** Factual from news paper. manufacturing is the focus of many policies, as per last two budgets and Economic Surveys.

87. What is/are the purpose/purposes of ‘District Mineral Foundations’ in India?

- 1. Promoting mineral exploration activities in mineral-rich districts
- 2. Protecting the interests of the persons affected by mining operations
- 3. Authorizing State Governments to issue licenses for mineral exploration

Select the correct answer using the code given below

- A. 1 and 2 only
- B. 2 only
- C. 1 and 3 only
- D. 1,2 and 3

**Ans. B**

**Explanation:** Objective of district mineral committees are to protect the interest of the people affected by mining

**Why the question Came:** Current affairs section, related to rights issues of weaker section generally asked in preliminary exam

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88. 'SWAYAM', an initiative of the Government of India, aims at

- A. Promoting the Self Help Groups in rural areas
- B. providing financial and technical assistance to young start-up entrepreneurs
- C. promoting the education and health of adolescent girls
- D. providing affordable and quality education to the citizens for free.

**Ans. D**

**Explanation:** SWAYAM programme under ministry of HRD in which Professors of centrally funded institutions like IITs, IIMs, central universities will offer online courses to citizens of India. All courses would be offered free of cost under this programme however fees would be levied in case learner requires certificate.

**Why the question Came:** Current affairs section, government schemes and programs – always important – and this is education, an important area.

89. The Montague-Chelmsford Proposals were related to

- A. social reforms
- B. education reforms
- C. reforms in public administration
- D. constitutional reforms

**Ans. D**

**Explanation:** Govt of India act 1919 is known as Montague-Chelmsford reforms which aimed at constitutional reforms

**Why the question Came:** Conventional history question. UPSC always checks candidates knowledge on evolution of constitution

90. What is/are common to the two historical places known as Ajanta and Mahabalipuram?

- 1. Both were built in the same period
- 2. Both belong to the same religious denomination
- 3. Both have rock-cut monuments

Select the correct answer using the code given below:

- A. 1 and 2 only
- B. 3 only
- C. 1 and 3 only
- D. None of the statements given above is correct

**Ans. B**

**Explanation:** Ajanta is known for Buddhist art and Mahabalipuram known for Hindu architecture. They both belonged to different period

**Why the question Came:** Art and culture related to Ancient India – again! Related to Buddhism also...

91. With reference to 'Bitcoins', sometimes seen in the news, which of the following statements is/are correct?

- 1. Bitcoins are tracked by the Central Banks of the countries.
- 2. Anyone with a Bitcoin address can send and receive Bitcoins from anyone else with a Bitcoin address.

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3. Online payments can be sent without either side knowing the identity of the other. Select the correct answering using the code given below.

- A. 1 and 2 only
- B. 2 and 3 only
- C. 3 only
- D. 1, 2 and 3

**Ans. B**

**Explanation:** Bitcoins are not tracked by the central banks.

**Why the question Came:** Fairly discussed news item from last few months. International fad almost.

92. Consider the following statements:

- 1. New Development Bank had been set up by APEC.
- 2. The headquarters of New Development Bank is in Shanghai.

Which of the statements given above is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

**Ans. B**

**Explanation:** New Development Bank was established by BRICS with capital at Shanghai

**Why the question Came:** International focus again. BRICS, AIID, ADB etc got a lot of popularity. UPSC asks something slightly peripheral. APEC also discussed in Economic Survey – so that link too.

93. ‘Gadgil Committee Report’ and ‘Kasturirangan Committee Report’, sometimes seen in the news, are related to

- A. Constitutional reforms
- B. Ganga Action Plan
- C. Linking of rivers
- D. Protection of Western Ghats

**Ans. D**

**Explanation:** Direct and Factual

**Why the question Came:** A Central government order on 5 September, 2015, had asked the six states that share the Western Ghats to ban all ‘destructive’ activities. This was as suggestion of the Gadgil Committee. Also, the report along with Rangarajan Committee Report gained much more

94. Consider the following:

- 1. Calcutta Unitarian Committee
- 2. Tabernacle of New Dispensation
- 3. Indian Reform Association

Keshab Chandra Sen is associated with the establishment of which of the above?

- A. 1 and 3 only
- B. 2 and 3 only

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- C. 3 only
- D. 1, 2 and 3

**Ans. B**

**Explanation:** Calcutta Unitarian Committee was established by Raja Ram Mohan Roy

**Why the question Came:** Factual history question, focusing on personalities. Occasionally comes in UPSC.

95. Which of the following is not a member of ‘Gulf Cooperation Council’?

- A. Iran
- B. Saudi Arabia
- C. Oman
- D. Kuwait

**Ans. A**

**Explanation:** The members of the Gulf Cooperation Council are Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates. Iran is not a member.

**Why the question Came:** Prime Minister Modi visited Saudi Arabia in April 2016 and Qatar in June. Him visiting two of the Gulf Cooperation Council countries put GCC in news. Also, the oil prices keep these countries in the news. Watch our video lecture:

96. What is/are the purpose/purposes of Government’s ‘Sovereign Gold Bond Scheme’ and ‘Gold Monetization Scheme’?

1. To bring the idle gold lying with Indian households into the economy
2. To promote FDI in the gold and jewellery sector
3. To reduce Indian’s dependence on gold imports

Select the Correct answer using the code given below.

- A. 1 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

**Ans. C**

**Explanation:** Announced by Finance Minister Arun Jaitley in his 2015-16 Budget speech, the Gold Monetization Scheme aims to bring gold lying idle with households and institutions into the market. In pursuance of the announcement in Union Budget 2015-16, Sovereign Gold Bond (SGB) scheme was launched as an alternative to physical gold in Nov 2015. The aim of SGB is to reduce demand, including through imports, for physical gold, and in process reduce India’s Current Account Deficit (CAD).

**Why the question Came:** Was in news after last year’s budget. One of the important schemes to be studied. Inflation and gold related stuff always makes headlines. We had discussed in detail in the webinar lectures. Economic Survey also highlights the gold schemes.

97. ‘Belt and Road Initiative’ is sometimes mentioned in the news in the context of the affairs of

- A. African Union
- B. Brazil
- C. European Union

D. China

**Ans. D**

**Explanation:** The Belt and Road Initiative is a development strategy and framework, proposed by China that focuses on connectivity and cooperation among countries primarily between the People's Republic of China and the rest of Eurasia.

**Why the question Came:** Since its inception, this initiative is seen as a concern for India – one due to increasing Chinese presence in India and, two, for huge investments announced for Pakistan. With China Pakistan Economic Corridor coming into picture, the Belt and Road Initiative became an important area. China focus again, of course!

98. **Pradhan Mantri MUDRA Yojana is aimed at**

- A. Bringing the small entrepreneurs into formal financial system
- B. Providing loans to poor farmers for cultivating particular crops
- C. Providing pensions to old and destitute persons
- D. Funding the voluntary organizations involved in the promotion of skill development and employment generation.

**Ans. A**

**Explanation:** Straight Factual Question. Mudra is for small entrepreneurs.

**Why the question Came:** Current Affairs – important schemes. Highlighted in Economic Survey notes.

99. **In which of the following regions of India are shale gas resources found?**

- 1. Cambay Basin
- 2. Cauvery Basin
- 3. Krishna-Godavari Basin

Select the correct answer using the code given below.

- A. 1 and 2 only
- B. 3 only
- C. 2 and 3 only
- D. 1, 2 and 3

**Ans. D**

**Explanation:** Identified shale-gas formations are spread over several sedimentary basins of the country, such as Cambay, Gondwana, Krishna Godavari Onland, and Cauvery.

**Why the question Came:** Was in news – April 2016. Issue of oil prices also made shale gas very prominent. Watch our lecture:

100. **'Global Financial Stability Report' is prepared by the**

- A. European Central Bank
- B. International Monetary Fund
- C. International Bank for Reconstruction and Development
- D. Organization for Economic Cooperation and Development

**Ans. B**



## PAPER II-CSAT

**Directions for the following 6 (six) items:**

**Read the following two passages and answer the items that follow each passage. Your answers to these items should be based on the passages only.**

### **Passage-1:-**

Accountability, or the lack of it, in governance generally, and civil services, in particular, is a major factor underlying the deficiencies in governance and public administration. Designing an effective framework for accountability has been a key element of the reform agenda. A fundamental issue is whether civil services should be accountable to the political executive of the day or to society at large. In other words, how should internal and external accountability be reconciled? Internal accountability is sought to be achieved by internal performance monitoring, official supervision by bodies like the ---Central-Vigilance Commission-and-Comptroller and Auditor—General, and judicial review of executive decisions. Articles 311 and 312 of the Indian Constitution provide job security and safeguards to the civil services, especially the All India Services. The framers of the Constitution had envisaged that provision of these safeguards would result in a civil service that is not totally subservient to the political executive but will have the strength to function in larger public interest. The need to balance internal and external accountability is thus built into the Constitution. The issue is where to draw the line. Over the years, the emphasis seems to have tilted in favour of greater internal accountability of the civil services to the political leaders of the day who in turn are expected to be externally accountable to the society at large through the election process. This system for seeking accountability to Society has not worked out, and has led to several adverse consequences for governance.

Some special measures can be considered for improving accountability in civil services. Provisions of articles 311 and 312 should be reviewed and laws and regulations framed to ensure external accountability of civil services. The proposed Civil Services Bill seeks to address some of these requirements. The respective roles of professional civil services and the political executive should be defined so that professional managerial functions and management of civil services are depoliticized. For this purpose, effective statutory civil service boards should be created at the centre and in the states. Decentralization and devolution of authority to bring government and decision making closer to the people also helps to enhance accountability.

1. According to the passage, which of the following factor/factors led to the adverse consequences for governance/public administration?

1. Inability of civil services to strike a balance between internal and external accountabilities
2. Lack of sufficient professional training to the officers of All India Services
3. Lack of proper service benefits in civil services
4. Lack of Constitutional provisions to define the respective roles of professional civil services vis-a-vis political executive in this context

Select the correct answer using the code given below:

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

**Answer .C**

2. With reference to the passage, the following assumptions have been made

1. Political executive is an obstacle to the accountability of the civil services to the society
2. In the present framework of Indian polity, the political executive is no longer accountable to the society

Which of these assumptions is/are valid?

- A. 1 only
  - B. 2 only
  - C. Both 1 and 2
  - D. Neither 1 nor 2
- Earlier UPSC had notified that CSAT would not be considered in deciding the ranking and cut-off and it would be qualifying in nature.

**Answer .D**

3. Which one of the following is the essential message implied by this passage?

- A. Civil services are not accountable to the society they are serving
- B. Educated and enlightened persons are not taking up political leadership
- C. The framers of the Constitution did not envisage the problems being encountered by the civil services
- D. There is a need and scope for reforms to improve the accountability of civil services

**Answer .D**

4. **According to the passage, which one of the following is not a means of enhancing internal accountability of civil services?**
- A. Better job security and safeguards
  - B. Supervision by Central Vigilance Commission
  - C. Judicial review of executive decisions
  - D. Seeking accountability through enhanced participation by people in decision making process

**Answer .D**

## **Passage-2:**

In general, religious traditions stress our duty to god, or to some universal ethical principle. Our duties to one another derive from these. The religious concept of rights is primarily derived from our relationship to this divinity or principle and the implication it has on our other relationships. This correspondence between rights and duties is critical to any further understanding of justice. But, for justice to be practiced; rights and duties cannot remain formal abstraction. They must be grounded in a community (common unity) bound together by a sense of common union (communion). Even as a personal virtue, this solidarity is essential to the practice and understanding of justice.

5. **With reference to the passage, the following assumptions have been made :**
- 1. Human relationships are derived from their religious traditions
  - 2. Human beings can be duty bound only if they believe in god
  - 3. Religious traditions are essential to practice and understand justice

Which of these assumption(s) is/are valid?

- A.1only
- B.2and3only
- C.1and3only
- D. 1, 2 and 3

**Answer . A**

6. Which one of the following is the crux of this passage?

- A. Our duties to one another derive from our religious traditions
- B. Having relationship to the divine principle is a great virtue
- C. Balance between and duties is crucial to the delivery of justice in a society
- D. Religious concept of rights is primarily derived from our relationship to god

Answer .C

7. A ate grapes and pineapple; B ate grapes and oranges; C ate oranges, pineapple and apple; D ate grapes, apple and pineapple. After taking fruits, B and C fell sick. In the light of the above facts, it can be said that the cause of sickness was:

- A. Apple
- B. Pineapple
- C. Grapes
- D. Oranges

Answer. D

8. Consider the following statements.

- 1. The rate of population growth is increasing in the country
- 2. The death rate is declining faster in the country compared to birth rate
- 3. The birth rate is declining faster in the country compared to death rate
- 4. Rural-urban migration is taking place regularly in the country

Which one of the following conclusions may be true in the light of the above facts?

- A. The rate of population growth is increasing due to rural-urban migration
- B. The rate of population growth is increasing due to decline in death rate only
- C. The rate of population growth is increasing due to increase in birth rate only
- D. The rate of population growth is increasing due to faster decline in death rate than in birth rate

Answer .D

9. A person X was driving in a place where all roads ran either north-south or east-west, forming a grid. Roads are at a distance of 1 km from each other in a parallel. He started at the intersection of two roads, drove 3 km north, 3 km west and 4 km south. Which further route could bring him back to his starting point, if the same route is not repeated?

- A. 3 km east, then 2 km south
- B. 3 km east, then 1 km north
- C. 1 km north, then 2 km west
- D. 3 km south, then 1 km north

**Answer . B**

10. Consider the following statement:

"We shall go either for a picnic or for trekking".

Which of the following, if true, would falsify this claim?

- A. We go for a picnic but not for trekking
- B. Activities such as picnic and trekking are encouraged by the health authorities
- C. We go for trekking and not for picnic
- D. We do not go either for picnic or for trekking

**Answer .D**

11. There were 50 faculty member comprising 30 males and the rest females. No male faculty member knew music, but many of the female faculty members did. The Head of the institution invited six faculty members to a tea party by draw of lots. At the party it was discovered that no members knew music. The conclusion is that:

- A. the party comprised male faculty members only
- B. the party comprised only those female faculty members who could not give renderings in music
- C. the party comprised both male and female faculty members
- D. nothing can be said about the gender composition of the party

**Answer .A**

12. Five people A, B, C, D and E are seated about a round table. Every chair is spaced equidistant from adjacent chairs.

- (i) C is seated next to A
- (ii) A is seated two seats from D
- (iii) B is not seated next to A

On the basis of above information, which of the following must be true?

- 1. D is seated next to B
- 2. E is seated next to A
- 3. D and C are separated by two seats

Select the correct answer using the code given below:

- A. 1only
- B. 1and2only
- C. 3only
- D. Neither 1 nor 2 nor 3

**Answer. B**

13. There are five hobby clubs in a college —photography, yachting, chess, electronics and gardening. The gardening group meets every second day, the electronics group meets every third day, the chess group meets every fourth day, the yachting group meets every fifth day and the photography group meets every sixth day. How many times do all the five groups meet on the same day within 180 days?

- A. 5
- B. 18
- C. 10
- D. 3

**Answer . D**

14. There are some nectar-filled flowers on a tree and some bees are hovering on it. If one bee lands on each flower, one bee will be left out. If two bees land on each flower, one flower will be left out. The number of flowers and bees respectively are:

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- A.2and4
- B.3and2
- C.3and4
- D. 4 and 3

**Answer . C**

**Directions for the following 5 (five) items: Consider the following information and answer the five items that follow:**

**There are five persons in a group — P, Q, R, S and T. The group has one doctor, one lawyer and one artist. P and S are unmarried students. T is a man married to one of the group members. Q is the brother of P and is neither doctor nor artist. R is not doctor.**

**15. Who is the doctor?**

- A.T
- B.P
- C.Q
- D. R

**Answer . A**

**16. Who is the artist?**

- A.P
- B.Q
- C.R
- D. T

**Answer. C**

**17. Who is the spouse of R?**

- A.P
- B.T
- C.Q
- D. S



Answer . B

18. Who is the lawyer?

- A. P
- B. Q
- C. R
- D. S

Answer . B

19. Who of the following is definitely a man?

- A. P
- B. S
- C. Q
- D. None of the above

Answer . C

20. There is an order of 19000 quantity of a particular product from a customer. The firm produces 1000 quantity of that product per out of which 5% are unfit for sale. In how many days will the order be completed?

- A. 18
- B. 19
- C. 20
- D. 22

Answer . C

**Directions for the following 5 (five) items : Read the following two passages and answer the items that follow each passage. Your answers to these items should be based on the passages only.**

### **Passage-1:**

Biomass as fuel for power, heat, and transport has the highest mitigation potential of all renewable sources. It comes from agriculture and forest residues as well as from energy crops. The biggest challenge in using

biomass residues is a long-term reliable supply delivered to the power plant at reasonable costs; the key problems are logistical constraints and the costs of fuel collection. Energy crops, if not managed properly, compete with food production and may have undesirable impacts on food prices. Biomass production is also sensitive to the physical impacts of a changing climate.

Projections of the future role of biomass are probably overestimated, given the limits to the sustainable biomass supply, unless breakthrough technologies substantially increase productivity. Climate-energy models project that biomass use could increase nearly four-fold to around 150 — 200 exajoules, almost a quarter of world primary energy in 2050. However the maximum sustainable technical potential of biomass resources (both residues and energy crops) without disruption of food and forest resources ranges from 80 — 170 exajoules a year by 2050, and only part of this is realistically and economically feasible. In addition, some climate models rely on biomass-based carbon capture and storage, an unproven technology, to achieve negative emissions and to buy some time during the first half of the century.

Some liquid biofuels such as corn-based ethanol, mainly for transport, may aggravate rather than ameliorate carbon emissions on a life-cycle basis. Second generation biofuels, based on ligno-cellulosic feedstocks — such as straw, bagasse, grass and wood — hold the promise of sustainable production that is high-yielding and emit low levels of greenhouse gases, but these are still in the R & D stage.

## 21. What is/are the present constraint/constraints in using biomass as fuel for power generation?

1. Lack of sustainable supply of biomass
2. Biomass production competes with food production
3. Bio-energy may not always be low carbon on a life-cycle basis

Select the correct answer using the code given below:

- A. 1 and 2 only
- B. 3 only
- C. 2 and 3 only
- D. 1, 2 and 3

**Answer . D**

## 22. Which of the following can lead to food security problem?

1. Using agricultural and forest residues as feedstock for power generation
2. Using biomass for carbon capture and storage
3. Promoting the cultivation of energy crops

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

- A. 1 and 2 only
- B. 3 only
- C. 2 and 3 only
- D. 1, 2 and 3

**Answer .B**

**23. In the context of using biomass, which of the following is/are the characteristic/characteristics of the sustainable production of biofuel?**

1. Biomass as a fuel for power generation could meet all the primary energy requirements of the world by 2050
2. Biomass as a fuel for power generation does not necessarily disrupt food and forest resources
3. Biomass as a fuel for power generation could help in achieving negative emissions, given certain nascent technologies

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

- A. 1 and 2 only
- B. 3 only
- C. 2 and 3 only
- D. 1, 2 and 3

**Answer .B**

**24. With reference to the passage, following assumptions have been mad :**

1. Some climate-energy models suggest that the use of biomass as a fuel for power generation helps in mitigating greenhouse gas emissions
2. It is not possible to use biomass as a fuel for power generation without disrupting food and forest resources

Which of these assumptions is/are valid?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

**Answer .A**

## **Passage-2:**

We are witnessing a dangerous dwindling of biodiversity in our food supply. The green revolution is a mixed blessing. Over time farmers have come to rely heavily on broadly adapted, high yield crops to the exclusion of varieties adapted to the local conditions. Monocropping vast fields with the same genetically uniform seeds helps boost yield and meet immediate hunger needs. Yet high-yield varieties are also genetically weaker crops that require expensive chemical fertilizers and toxic pesticides. In our focus on increasing the amount of food we produce today, we have accidentally put ourselves at risk for food shortages in future.

**25. Which among the following is the most logical and critical inference that can be made from the above passage?**

- A. In our agricultural practices, we have become heavily dependent on expensive chemical fertilizers and toxic pesticides only due to green revolution
- B. Monocropping vast fields with high-yield varieties is possible due to green revolution
- C. Monocropping with high-yield varieties is the only way to ensure food security to millions
- D. Green revolution can pose a threat to biodiversity in food supply and food security in the long run

**Answer .D**

**26. A class starts at 11:00 am and lasts till 2:27 pm. Four periods of equal duration are held during this interval. After every period, a rest of 5 minutes is given to the students. The exact duration of each period is:**

- A. 48 minutes
- B. 50 minutes

C. 51 minutes

D. 53 minutes

**Answer .A**

27. Four friends A, B, C and D need to cross a bridge. A maximum of two persons can cross it at a time. It is night and they just have one lamp. Persons that cross the bridge must carry the lamp to find the way. A pair must walk together at the speed of slower person. After crossing the bridge, the person having faster speed in the pair will return with the lamp each time to accompany another person in the group. Finally, the lamp has to be returned at the original place and the person who returns the lamp has to cross the bridge again without lamp. To cross the bridge, the time taken by them is as follows : A: 1 minute, B: 2 minutes, C: 7 minutes and D: 10 minutes. What is the total minimum time required by all the friends to cross the bridge?

A. 23 minutes

B. 22 minutes

C. 21 minutes

D. 20 minutes

**Answer .A**

28. 30g of sugar was mixed in 180 ml water in a vessel A, 40 g of sugar Was mixed in 280 ml of water in vessel B and 20 g of sugar was mixed in 100 ml of water in vessel C. The solution in vessel B is

A. sweeter than that in C

B. sweeter than that in A

C. as sweet as that in C

D. less sweet than that in C

**Answer .D**

29. In aid of charity, every student in a class contributes as many rupees as the number of students in that class. With the additional contribution of Rs. 2 by one student only, the total collection is Rs. 443. Then how many students are there in the class?

A. 12

B. 21

C. 43

D. 45

**Answer .B**

30. Anita's mathematics test had 70 problems carrying equal marks i.e., 10 arithmetic, 30 algebra and 30 geometry. Although she answered 70% of the arithmetic, 40% of the algebra and 60% of the geometry problems correctly, she did not pass the test because she got less than 60% marks. The number of more questions she would have to answer correctly to earn a 60% passing marks is:

A.1

B. 5

C. 7

D. 9

**Answer .B**

31. In a class, there are 18 very tall boys. If these constitute three-fourths of the boys and the total number of boys is two-thirds of the total number of students in the class, what is the number of girls in the class?

A. 6

B. 12

C. 18

D. 21

**Answer .B**

32. Consider the following statements:

1. Either A and B are of the same age or A is older than B

2. Either C or D are of the same age or D is older than C

3. B is older than C

**Which of the following conclusions can be drawn from the above statements?**

- A. A is older than B
- B. B and D are of the same age
- C. D is older than C
- D. A is older than C

**Answer .D**

33. **The monthly average salary paid to all the employees of a company was Rs. 5000. The monthly average salary paid to male and female employees was Rs. 5200 and Rs. 4200 respectively. Then the percentage of males employed in the company is**

- A. 75%
- B. 80%
- C. 85%
- D. 90%

**Answer .C**

**Direction for the following 3 (three) items: Consider the given -formation and answer the three items that follow.**

Six boxes A, B, C, D, E and F have been painted with six different colours viz., violet, indigo, blue, green, yellow and orange and arranged from left to right (not necessarily either kept or painted with the colours in the same order). Each box contains a ball of any one of the following six games: cricket, hockey, tennis, golf, football and volleyball (not necessarily in the same order). The golf ball is in violet box and is not in the box D. The box A which contains tennis ball is orange in colour and is at the extreme right. The hockey ball is neither in box D nor in box E. The box C having cricket ball is painted green. The hockey ball is neither in the box painted blue nor in the box painted yellow. The box C is fifth from right and next to box B. The box B contains volleyball. The box containing the hockey ball is between the boxes containing golf ball and volleyball.

34. **Which one of the following boxes contains the golf ball?**

- A. F
- B. E



C. D

D. None of the above

**Answer .B**

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

A. D is painted yellow

B. F is painted indigo

C. B is painted blue

D. All of the above

**Answer .B**

**36. The football is in the box of which colour?**

A. Yellow

B. Indigo

C. Cannot be determined as data are inadequate

D. Blue

**Answer .C**

**37. Two numbers X and Y are respectively 20% and 28% less than a third number Z. By what percentage is the number Y less than the number X?**

A. 12%

B. 10%

C. 9%

D. 8%

**Answer .B**

**38. A daily train is to be introduced between station A and station B starting from each end at 6 AM and the journey is to be completed in 42 hours. What is the number of trains needed in order to maintain the Shuttle Service?**

A. 2

B.3

C. 4

D. 7

**Answer. A**

**39. A piece of tin is in the form of a rectangle having length 12 cm and width 8 cm. This is used to construct a closed cube. The side of the cube is:**

A. 2cm

B. 3cm

C. 4cm

D. 7 cm

**Answer .C\***

**40. In a question paper there are five questions to be attempted and answer to each question has two choices - True (T) or False (F). It is given that no two candidates have given the answers to the five questions in an identical sequence. For this to happen the maximum number of candidates is:**

A.10

B.18

C. 26

D. 32

**Answer . \***

**Directions for the following 8 (eight) items :**

**Read the following eight passages and answer the item that follows each passage. Your answers to these items should be based on the passages only.**

## **Passage-1**

By killing transparency and competition, crony capitalism is harmful to free enterprise, opportunity and economic growth. Crony capitalism, where rich and the influential are alleged to have received land and natural resources and various licenses in return for payoffs to venal politicians, is now a major issue to be tackled. One of the greatest dangers to growth of developing economies like India is the middle-income where crony capitalism creates oligarchies that slow down the growth.

41. Which among the following is the most logical corollary to the above passage ?

- A. Launching more welfare schemes and allocating more finances for the current schemes are urgently needed
- B. Efforts should be made to push up economic growth by other means and provide licenses to the poor
- C. Greater transparency in the functioning of the government and promoting the financial inclusion are needed at present
- D. We should concentrate more on developing manufacturing sector than service sector

Answer .C

## Passage-2

Climate adaptation may be rendered ineffective if policies are not designed in the context of other development concerns. For instance, a comprehensive strategy that seeks to improve food security in the context of climate change may include a set of coordinated measures related to agricultural extension, crop diversification, integrated water and pest management and agricultural information series. Some of these measures may have to do with climate changes and others with economic development.

42. What is the most logical and rational inference that can be made from the above passage?

- A. It is difficult to pursue climate adaptation in the developing countries
- B. Improving food security is a far more complex issue than climate adaptation
- C. Every developmental activity is directly or indirectly linked to climate adaptation
- D. Climate adaptation should be examined in tandem with other economic development options

Answer .D

## Passage-3

Understanding of the role of biodiversity in the hydrological cycle enables better policy-making. The term biodiversity refers to the variety of plants, animals, microorganisms, and the ecosystems in which they occur. Water and biodiversity are interdependent. In reality, the hydrological cycle decides how biodiversity functions. In turn, vegetation and soil drive the movement of water. Every glass of water we drink has, at least in part, passed through fish, trees, bacteria, soil and other organisms. Passing through these ecosystems, it is cleansed and made fit for consumption. The supply of water is a critical service that the environment provides.

43. Which among the following is the most critical inference that can be made from the above passage

- A. biodiversity sustains the ability of nature to recycle water
- B. We cannot get potable water without the existence of living organisms
- C. Plants, animals and microorganisms continuously interact among themselves
- D. Living organisms could not have come into existence without hydrological cycle

Answer .A

## Passage-4

In the last decade, the banking sector has been restructured with a high degree of automation and products that mainly serve middle-class and upper middle-class society. Today there is need for a new agenda for the banking and non-banking financial services that does not exclude the common man

44. Which one of the following is the message that is essentially implied in the above passage?

- A. Need for more automation and more products of bank
- B. Need for a radical restructuring of our entire public finance system
- C. Need to integrate banking and non-banking institutions
- D. Need to promote financial inclusion

Answer .D

## Passage-5

Safe and sustainable sanitation in slums has immeasurable benefits to women and girls in terms of their health, safety, privacy and dignity. However, women do not feature in most of the schemes and policies on urban sanitation. The fact that even now the manual scavenging exists, ones to show that not enough has been done to promote pour-flush toilets and discontinue the use of dry latrines. A more sustained and rigorous campaign needs to be launched towards the right to sanitation on a very large scale. This should primarily focus on the abolition of manual scavenging.

45. With reference to the above passage, consider the following statements:

1. Urban sanitation problems can be fully solved by the abolition of manual scavenging only
2. There is a need to promote greater awareness on safe sanitation practices in urban areas Which of the statements given above is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

Answer .B

## Passage-6

To understand the nature and quantity of Government proper for man, it is necessary to attend to his character. As nature created him for social life, she fitted him for the station she intended. In all cases she made his natural wants greater than his individual powers. No one man is capable, without the aid of society, of supplying his own wants; and those wants, acting upon every individual, impel the whole of them into society.

46. Which among the following is the most logical and rational inference that can be made from the above passage ?

- A. Nature has created a great diversity in human society
- B. Any given human society is always short of its wants

- C. Social life is a specific characteristic of man
- D. Diverse natural wants forced man towards social system

Answer .D

1

## Passage-7

The nature of the legal imperatives in any given state corresponds to the effective demands that state encounters, and that these, in their turn, depend, in a general way, upon the manner in which economic power is distributed in the society which the state controls.

47. The statement refers to:

- A. the antithesis of Politics and Economics
- B. the interrelationship of Politics and Economics
- C. the predominance of Economics over Politics
- D. the predominance of Politics over Economics

Answer

## Passage-8

About 15 percent of global greenhouse gas emissions come from agricultural practices. This includes nitrous oxide fertilizers; methane from livestock, rice production, and manure storage; and carbon dioxide (CO<sub>2</sub>) from burning biomass, but this excludes CO<sub>2</sub> emissions from soil management practices, sayannah burning and deforestation. Forestry and use, and land-use change account for another percent of greenhouse gas emissions each year, three quarters of which come from tropical deforestation. The remainder is largely from draining and burning tropical peatland. About the same amount of carbon is stored in the world's peatlands as is stored in the Amazon rainforest.

48. Which among the following is the most logical and rational inference that can be made from the above passage?

- A. Organic farming should immediately replace mechanized and chemical dependant agricultural practices all over the world
- B. It is imperative for us to modify our land use practices in order to mitigate climate change.

- C. There are no technological solutions to the problem of greenhouse gas emissions
- D. Tropical areas are the chief sites of carbon sequestration

**Answer .A**

49. A person climbs a hill in a straight path from point 'O' on the ground in the direction of north-east and reaches a point 'A' after travelling a distance of 5 km. Then, from the point 'A' he moves to point 'B' in the direction of north-west. Let the distance AB be 12 km. Now, how far is the person away from the starting point 'O'?

- A. 7 km
- B. 13 km
- C. 17 km
- D. 11 km

**Answer .B**

50. An agricultural field is in the form of a rectangle having length  $X_1$  meters and breadth  $X_2$  meters ( $X_1$  and  $X_2$  are variable). If  $X_1 + X_2 = 40$  meters, then the area of the agricultural field will not exceed which one of the following values?

- A. 400 sq m
- B. 300 sq m
- C. 200 sq m
- D. 80 sq m

**Answer .A**

51. The sum of the ages of 5 members comprising a family, 3 years ago was 80 years. The average age of the family today is the same as it was 3 years ago, because of an addition of a baby during the intervening period. How old is the baby?

- A. 6 months
- B. 1 year
- C. 2 years
- D. 2 years and 6 months

**Answer .B**



52. The total emoluments of two persons are the same, but one gets allowances to the extent of 65% of his basic pay and the other gets allowances to the extent of 80% of his basic pay. The ratio of the basic pay of the former to the basic pay of the latter is:

- A. 16 : 13
- B. 5 : 4
- C. 7 : 5
- D. 12 : 11

Answer .A

53. A person is standing on the first step from the bottom of a ladder. If he has to climb 4 more steps to reach exactly the middle step, how many steps does the ladder have?

- A. 8
- B. 9
- C. 10
- D. 11

Answer .B

Direction for the following 3 (three) items : Consider the given information and answer the three items that follow.

When three friends A, B and C met, it was found that each of them wore an outer garment of a different colour. In random order, the garments are: jacket, sweater and tie; and the colours are: blue, white and black. Their surnames in random order Kumar and Singh.

Further, we know that :

1. neither B nor Ribeiro wore a white sweater
2. C wore a tie
3. Singh's garment was not white
4. Kumar does not wear a jacket
5. Ribeiro does not like to wear the black colour
6. Each of the friends wore only one outer garment of only one colour

54. What is C's surname ?

- A. Riberio
- B. Kumar
- C. Singh
- D. Cannot be determined

**Answer .A**

55. What is the colour of the tie ?

- A. Black
- B. Blue
- C. White
- D. Cannot be determined

**Answer .B**

56. Who wore the sweater ?

- A. A
- B. B
- C. C
- D. Cannot be determined

**Answer .A**

57. AB is a vertical trunk of a huge tree with A being the point where the base of the trunk touches the ground. Due to a cyclone, the trunk has been broken at C which is at a height of 12 meters, broken part is partially attached to the vertical portion of the trunk at C. If the end of the broken part B touches the ground at D which is at a distance of 5 meters from A, then the original height of the trunk is:

- A. 20 m
- B. 25 m
- C. 30 m
- D. 35 m

**Answer .B**

58. A person walks 12 km due north, then 15 km due east, after that 19 km due west and then 15 km due south. How far is he from the starting point?

- A. 5 km
- B. 9 km
- C. 37 km
- D. 61 km

**Answer .A**

59. A cube has all its faces painted with different colours. It is cut into smaller cubes of equal sizes such that the side of the small cube is one-fourth the big cube. The number of small cubes with only one of the sides painted is:

- A. 32
- B. 24
- C. 16
- D. 8

**Answer .D**

60. Ram and Shyam work on a job together for four days and complete 60% of it. Ram takes leave then and Shyam works for eight more days to complete the job. How long would Ram take to complete the entire job alone?

- A. 6 days
- B. 8 days
- C. 10 days
- D. 11 days

**Answer .C**

61. A military code writes SYSTEM as SYSMET and NEARER as AENRER. Using the same code, FRACTION can be written as:

- A. CARFTION

- B. FRACNOIT
- C. NOITCARF
- D. CARFNOIT

**Answer .D**

62. If R and S are different integers both divisible by 5, then which of the following is not necessarily true?

- A. R - S is divisible by 5
- B. R + S is divisible by 10
- C. R x S is divisible by 25
- D.  $R^2 + S^2$  is divisible by 5

**Answer .B**

63. How many numbers are there between 100 and 300 which either begin with or end with 2?

- A. 110
- B. 111
- C. 112
- D. None of the above

**Answer .A**

**Directions for the following 8 (eight) items: Read the following five passages and answer the items that follow each passage. Your answers to these items should be based on the passages only.**

### **Passage-1:**

As we look to 2050, when we will need to feed two billion more people, the question of which diet is best has taken on new urgency. The foods we choose to eat in the coming decades will have dramatic ramifications for the planet. Simply put, a diet that revolves around meat and dairy a way of eating that is on the rise throughout the developing world, will take a greater toll on the world's resources than one that revolves around unrefined grains, nuts, fruits and vegetables.

64. What is the critical message conveyed by the above passage?

- A. Our increasing demand for foods sourced from animals puts a greater burden on our natural resources
- B. Diets based on grains, nuts, fruits and vegetables are best suited for health in developing countries
- C. Human beings change their food habits from time to time irrespective of the health concerns
- D. From a global perspective, we still do not know which type of diet is best for us

Answer .A

## Passage-2:

All humans digest mother's milk as infants, but until cattle began being domesticated 10,000 years ago, children once weaned no longer needed to digest milk. As a result, they stopped making the enzyme lactase, which breaks down the sugar lactose into simple sugars. After humans began herding cattle, it became tremendously advantageous to digest milk, and lactose tolerance evolved independently among cattle herders in Europe, the middle East and Africa. Groups not dependant on cattle, such as the Chinese and Thai, remain lactose intolerant.

65. Which among the following is the most logical assumption that can be made from the above passage?

- A. About 10,000 years ago, the domestication of animals took place in some parts of the world
- B. A permanent change in the food habits of a community can bring about a genetic change in its members
- C. Lactose tolerant people only are capable of getting simple sugars in their bodies
- D. People who are not lactose tolerant cannot digest any dairy product

Answer .B

## Passage-3:

"The conceptual difficulties in National Income comparisons between underdeveloped and industrialized countries are particularly serious because a part of the national output in various underdeveloped countries is produced without passing through the commercial channels."

**66. In the above statement, the author implies that:**

- A. the entire national output produced and consumed in industrialized countries passes through commercial channels
- B. the existence of a non-commercialized sector in different underdeveloped countries renders the national income comparisons over countries difficult
- C. no part of national output should be produced and consumed without passing through commercial channels
- D. a part of the national output being produced and consumed without passing through commercial channels is a sign of underdevelopment

**Answer .D**

## **Passage-4**

An increase in human-made carbon dioxide in the atmosphere could initiate a chain reaction between plant and microorganisms that would unsettle one of the largest carbon reservoirs on the planet soil. In a study, it was found that the soil, which contains twice the amount of carbon present in a plants and Earth's atmosphere combined, could become increasingly volatile people add more carbon dioxide to the atmosphere. This is largely because of increased plant growth. Although a greenhouse gas and a pollutant, carbon dioxide also supports plant growth. As trees and other vegetation flourish in a carbon dioxide-rich future, their roots could stimulate microbial activity in soil that may in turn accelerate the decomposition of soil carbon and its release into the atmosphere as carbon dioxide.

**67. Which among the following is the most logical corollary to the above passage ?**

- A. Carbon dioxide is essential for the survival of microorganisms and plants
- B. Humans are solely responsible for the release of carbon dioxide into the atmosphere
- C. Microorganisms and soil carbon are mainly responsible for the increased plant growth
- D. Increasing green cover could trigger the release of carbon trapped in soil

**Answer .D**

## Passage-5

Historically, the biggest Challenge to world agriculture has been to achieve a balance between demand for and supply of food. At the level of individual countries, the demand-supply balance can be a critical issue for a closed economy, especially if it is a populous economy and its domestic agriculture is not growing sufficiently enough to ensure food supplies, on an enduring basis; it is not so much and not always, of a constraint for an open, and growing economy, which has adequate exchange surpluses to buy food abroad. For the world as a whole, Supply-demand balance is always an inescapable prerequisite for warding off hunger and starvation. However, global availability of adequate supply does not necessarily mean that food would automatically move from countries of surplus to of deficit if the latter lack in purchasing power. The uneven distribution of Income, starvation, under or malnourishment, etc., at the world-level, thus owes itself to the presence of empty-pock hungry mouths, overwhelmingly confined to the underdeveloped economies. Inasmuch as 'a two-square meal' is of elemental significance to basic human existence, the issue of worldwide supply of food has been gaining significance, in recent times, both because the quantum and the composition of demand has been undergoing big changes, and because, in recent years, the capabilities individual countries to generate uninterrupted chain of food supplies have come under strain. Food production, marketing and prices, especially price-affordability by the poor in the developing world, have become global issues that need global thinking and global solutions.

68. According to the above passage, which of the following are the fundamental solutions for the world food security problem?

1. Setting up more agro-based industries
2. Improving the price affordability by the poor
3. Regulating the conditions of marketing
4. Providing food subsidy to one and all

Select the correct answer using the code given below:

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

**Answer .B**



69. According to the above passage, the biggest challenge to world agriculture is:

- A. to find sufficient land for agriculture and to expand food processing industries
- B. to eradicate hunger in underdeveloped countries
- C. to achieve a balance between the production of food and non-food items
- D. to achieve a balance between demand for and supply of food

**Answer .D**

70. According to the above passage, which of the following helps/help in reducing hunger and starvation in the developing economies ?

- 1. Balancing demand and supply of food
- 2. Increasing imports of food
- 3. Creasing purchasing power of the poor
- 4. Changing the food consumption patterns and practices

Select the correct answer using the code given below:

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

**Answer .C**

71. The issue of worldwide supply of food has gained importance mainly because of:

- 1. overgrowth of the population worldwide
- 2. sharp decline in the area of food production
- 3. limitation in the capabilities for sustained supply of food

Select the correct answer using the code given below:

- A. 1 and 2 only
- B. 3 only
- C. 2 and 3 only
- D. 1, 2 and 3

**Answer .B**

**72. Four-digit numbers are to be formed using the digits 1, 2, 3 and 4; and none of these four digits are repeated in any manner. Further,**

1. 2 and 3 are not to immediately follow each other
2. 1 is not to be immediately followed by 3
3. 4 is not to appear at the last place
4. 1 is not to appear at the first place

How many different numbers can be formed?

- A. 6
- B. 8
- C. 9
- D. None of the above

**Answer .A**

**73. A cylindrical overhead tank of radius 2 m and height 7 m is to be filled from an underground tank of size 5.5m x 4m x 6m. How much portion of the underground tank is still filled with water after filling the overhead tank completely?**

- A.  $\frac{1}{3}$
- B.  $\frac{1}{2}$
- C.  $\frac{1}{4}$
- D.  $\frac{1}{6}$

**Answer .A**

**74. In a class of 60 students, where the number of girls is twice that of boys, Kamal, a boy, ranked seventeenth from the top. If there are 9 girls ahead of Kamal, the number of boys in rank after him is:**

- A. 13
- B. 12

C. 7

D. 3

**Answer .B**

75. A and B walk around a circular park. They start at 8 a.m. from the same point in the opposite directions. A and B walk at a speed of 2 rounds per hour and 3 rounds per hour respectively. How many times shall they cross each other after 8 00 a.m. and before 9.30. a.m.?

A. 7

B. 6

C. 5

D. 8

**Answer .A**

76. W can do 25% of a work-in 30 days, X can do  $\frac{1}{4}$  of the work in 10 days, Y can do 40% of the work in 40 days and Z can do  $\frac{1}{3}$  of the work in 13 days. Who will complete the work first?

A. W

B. X

C. Y

D. Z

**Answer .D**

77. The average monthly income of a person in a certain family of 5 is Rs. 10,000. What will be the average monthly income of a person in the same family if the income of one person increased by Rs. 1,20,000 per year?

A. Rs. 12,000

B. Rs. 16,000

C. Rs. 20,000

D. Rs. 34,000

**Answer .D**

78. In a race, a competitor has to collect 6 apples which are kept in a straight line on a track and a bucket is placed at the beginning of the track which is a starting point. The condition is that the competitor can pick only one apple at a time, run back with it and drop it in the bucket. If he has to drop all the apples in the bucket, how much total distance he has to run if the bucket is 5 meters from the first apple and all other apples are placed 3 meters apart ?

- A. 40 m
- B. 50 m
- C. 150 m
- D. 75 m

**Answer. C**

79. A round archery target of diameter 1 m is marked with four scoring regions from the centre outwards as red, blue, yellow and white. The radius of the red band is 0.20 m. The width of all the remaining bands is equal. If archers throw arrows towards the target, what is the probability that the arrows fall in the red region of the archery target?

- A. 0.40
- B. 0.20
- C. 0.16
- D. 0.04

**Answer .C**

80. A person allows 10% discount for cash payment from the marked price of a toy and still he makes a 10% gain. What is the cost price of the toy which is marked Rs. 770?

- A. Rs. 610
- B. Rs. 620
- C. Rs. 630
- D. Rs. 640

**Answer .C**