Question Booklet No: EXAM DATE:

TEST BOOKLET
GENERAL STUDIES
PAPER - II

Test Time Allowed : (02:00PM to 04:00PM)2 Hours   **Maximum Marks : 200**

INSTRUCTIONS

1. IMMEDIATELY AFTER THE COMMENCEMENT OF THE EXAMINATION, YOU SHOULD CHECK THAT THIS TEST BOOKLET DOES NOT HAVE ANY UNPRINTED OR TORN OR MISSING PAGES OR ITEMS, ETC. IF SO, GET IT REPLACED. BY A COMPLETE TEST BOOKLET.

2. **Please note that it is the candidate's responsibility to encode and fill in the Roll Number and Test Booklet Series A, B, C or D carefully and without any omission or discrepancy at the appropriate places in the OMR Answer Sheet. Any omission/ discrepancy will render the Answer Sheet liable for rejection.**

3. You have to enter your Roll Number on the Test Booklet **in the Box provided alongside. DO NOT write anything else on the Test Booklet.**

4. This Test Booklet contains **80 items** (questions). Each item is printed in **English**. Each item comprises four responses (answers). You will select the response which you want to mark on the Answer Sheet. In case you feel that there is more than one correct response, mark the response which you consider the best. In any case, choose *ONLY ONE* response for each item.

5. You have to mark 'all your responses *ONLY* on the separate Answer Sheet provided. See directions in the Answer Sheet.

6. **All** items carry equal marks.

7. Before you proceed to mark in the Answer Sheet the response to various items in the Test Booklet, you have to fill in some particulars in the Answer Sheet as per instructions sent to you with your Admission Certificate.

8. After you have completed filling in all your responses on the Answer Sheet and the examination has concluded, you should hand over to the Invigilator only the Answer Sheet. You are permitted to take this Test Booklet with you.

9. Sheets for rough work are appended in the Test Booklet at the end.

10. **Penalty for wrong answers :**
    THERE WILL BE PENALTY FOR WRONG ANSWERS MARKED BY A CANDIDATE IN ALL THE QUESTIONS.

    (i) There are four alternatives for the answer to every question. For each question for which a wrong answer is given by the candidate, one-third of the marks assigned to that question will be deducted as penalty.

    (ii) If a candidate gives more than one answer, it will be treated as a wrong answer even if one of the given answers happens to be correct and there will be same penalty as above to that question.

    (iii) If a question is left blank, i.e., no answer is given by the candidate, there will be no penalty for that question.

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

Passage:1

The Maritime Agenda 2010 – 20 was an effort on the part of the Government of India to identify crucial areas to give attention to during the ten-year period from 2010–11 to 2019–20. This critical review of the matter of port–hinterland connectivity, a crucial component of the multimodal system, highlighted some critical issues that needed to be addressed and the key challenges facing the ports sector with regard to hinterland connectivity. With ports playing a vital role in the overall economic development of the country, it was pointed out that the development of India's ports and trade-related infrastructure would continue to be critical to sustain the accelerated growth of the Indian economy and that inadequate capacities of the hinterland transport modes had often lead to higher costs and delays on account of suboptimal mode choices, circuitous routing, and congestion in the hinterland transport links.

1. Based on the paragraph provided, the following assumptions have been made:

   1. The Maritime Agenda 2010–20 primarily focused on improving port infrastructure rather than hinterland connectivity.
   2. Inadequate capacities of hinterland transport modes have led to higher costs and delays in India's ports sector.

Which of the assumptions given above is/are correct?
   (a) Only 1
   (b) Only 2
   (c) Both 1 and 2
   (d) Neither 1 nor 2

2. Which one of the following statements best reflects the crux of the passage?
   (a) The Maritime Agenda 2010–20 neglected the crucial role of hinterland connectivity in India's economic growth.
   (b) The development of India's ports and trade-related infrastructure is essential for sustaining economic growth, with hinterland transport capacity being a significant concern.
   (c) The Maritime Agenda 2010–20 successfully addressed all critical issues related to the ports sector, including hinterland connectivity challenges.
   (d) India's ports sector has not faced significant challenges with hinterland connectivity, ensuring optimal mode choices and efficient transport links.

Passage:2

Rajkot is one of the largest engineering clusters in the country. The cluster is quite upbeat about its future. Besides attaining higher growth in production vis-à-vis all India, the engineering cluster in Rajkot has also generated substantial employment. The axiom that engineering industries are

highly capital intensive and therefore less employment-generating does not hold in the case of Rajkot. The entrepreneurs are optimistic about their future, are resilient and have focused on quality, productivity and efficiency to sustain themselves in a challenging environment. Consequently, competition from China is not seen as a threat, though it remains a major competitor.

3. Based on the above passage, the following assumptions have been made:

   1. The engineering cluster in Rajkot has shown higher growth in production compared to the national average.
   2. The axiom that engineering industries are generally less employment-generating due to high capital intensity does not apply to Rajkot's cluster.
   3. The entrepreneurs in Rajkot's engineering cluster prioritize quantity over quality.
   4. The competition from China is considered a significant threat by the entrepreneurs in Rajkot

   Which of the above assumptions are valid?

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

4. Which one of the following statements best reflects the crux of the passage?
   (a) Rajkot's engineering cluster has minimal growth in production and is heavily reliant on capital-intensive methods.

   (b) Rajkot's engineering cluster is struggling to survive in a challenging environment due to low productivity and inefficiency.
   (c) Rajkot's engineering cluster is primarily concerned with competing against Chinese industries and is less focused on internal productivity.
   (d) Rajkot's engineering cluster has defied the notion that engineering industries are less employment-generating, showing optimism, resilience, and a focus on quality and efficiency.

Passage: 3

India, like in many other countries, is undergoing a major "nutrition transition". In what characterises rapidly changing dietary patterns, there is a significant shift away from traditional diets, which were high in fibre and comprised mostly whole foods, to more western-style diets, which are processed and high in calories. This change has coincided with rapid economic progress and urbanisation along with a surge in the consumption of packaged and processed foods. These foods are nutritionally low in vitamins, minerals, fibre but are high in calories, fats, salt, sugar, and innumerable preservatives. Categorised as high in fats, salts and sugars (HFSS) foods, scientific evidence shows how junk food has been medically found to weaken the body's defences against infection, increase blood pressure, lead to a spike in blood sugar, cause weight gain, and also contribute to increased risk of cancer.

5. Which one of the following statements best reflects what is implied by the passage?

   (a) Traditional diets are more beneficial than western-style diets due to their high fiber content and reliance on whole foods.

   (b) Economic progress and urbanization have led to an increase in the consumption of nutritionally deficient packaged and processed foods.

   (c) HFSS foods, characterized by high fats, salts, and sugars, have been scientifically proven to have detrimental effects on health.

   (d) The nutrition transition in India mirrors global trends, indicating a shift towards diets that are detrimental to overall health.

Passage: 4

The Insurance Regulatory and Development Authority of India (IRDAI), the apex regulator of insurance products, has asked companies to enable a wide demographic of citizens to benefit from health insurance. Most significantly, it directs insurance providers to make health insurance available to senior citizens, as those above 65 are currently barred from issuing new policies for themselves. This is clearly an acknowledgement of demographic changes underway in India. Though India's population figures have not been officially accounted for since 2011, estimates from the UN Population Fund and experts suggest that India's is nearly level with China and may have surpassed it sometime in 2023.

6. Which of the following statements best summarizes the main point conveyed in the passage?

   (a) IRDAI's recent directive imposes stricter regulations on health insurance providers, limiting their coverage options.

   (b) IRDAI's directive reflects an acknowledgment of India's shifting demographic trends and aims to include senior citizens in health insurance schemes.

   (c) IRDAI's decision to restrict health insurance for senior citizens is a result of India's population exceeding that of China.

   (d) IRDAI's efforts to expand health insurance coverage have not been successful due to demographic challenges in India.

Passage: 5

A mid rising safety concerns among Indian seafarers following the recent attacks on commercial ships in sensitive geographical areas such as the Red Sea and the Strait of Hormuz, India submitted three papers to the 111th Session of the International Maritime Organization's (IMO) Legal Committee (LEG. These submissions address crucial issues such as seafarers' security, contract terms, and broader maritime security challenges. India has stressed the need for a comprehensive approach to maritime security and advocated improved contractual conditions for seafarers. While acknowledging the IMO's efforts to

combat maritime fraud, India has called for broader international cooperation to tackle various maritime threats, including piracy, armed robbery, extremist attacks, regional conflicts, and emerging risks such as drone attacks and the use of maritime weapons.

7. Based on the given passage, the following assumptions have been made:

1. India's recent submissions to the International Maritime Organization (IMO) primarily focus on seafarers' security concerns and maritime contract terms.

2. India believes that international cooperation is essential to address a wide range of maritime threats and challenges effectively.

Which of the assumptions given above is/are correct?

(a) Only 1

(b) Only 2

(c) Both 1 and 2

(d) Neither 1 nor 2

8. Which one of the following statements best reflects the crux of the passage?

(a) India emphasizes the importance of a comprehensive approach to maritime security and advocates for improved conditions for seafarers, along with broader international cooperation against maritime threats

(b) India's submissions to the IMO highlight its concerns about maritime fraud and seek stricter regulations in international waters.

(c) India believes that the IMO's efforts to combat maritime fraud are sufficient and do not require additional international cooperation.

(d) India's submissions to the IMO focus solely on addressing regional conflicts and ignore broader maritime security challenges.

Passage: 6

For some people, snakes are exotic yet dangerous creatures of the wild; eerie but elusive, and not something to worry about in day-to-day life. For others, especially some farmers in India and Africa, they are a constant and terrifying threat to life. Venom from snake bites leads to more than 100,000 deaths every year, with around 400,000 people left permanently disabled. The mortality burden is especially higher in low and middle-income countries in Africa and Asia, with India alone at a staggering average of 58,000 deaths in a year according to a 2020 report.

9. Which of the following assumptions can be derived from the given passage?

1. Snakes are primarily harmless creatures that do not pose a significant threat.

2. Snake bites are a leading cause of mortality and disability in certain regions.

3. Snake venom is not a major concern for public health in low-income countries.

4. Farmers in India and Africa face no risk from snake bites due to effective preventive measures.

(a) 1 and 2 only

(b) 2 and 4 only

(c) 1, 2, and 3 only

(d) 2 only

10. Which of the following statements best encapsulates the main idea conveyed in the passage?

(a) Snakes are harmless creatures that pose no danger to humans.

(b) Snake bites are a significant health risk, particularly in low and middle-income countries like India and Africa.

(c) Farmers in India and Africa are well-equipped to handle snake bites without significant health repercussions.

(d) Snake bites primarily affect urban populations and are not a concern for rural areas.

Passage: 7

The Indian Meteorological Department (IMD), an institution within the Ministry of Earth Sciences, represents the pinnacle of atmospheric science in India, coordinating a complex symphony of meteorological observations, forecasts, and seismological assessments. Originating during the colonial era, the IMD has evolved into a sophisticated network of observatories, providing essential climatological data and accurate weather predictions crucial for agricultural planning, air navigation, and maritime activities. The department's expertise in cyclone monitoring and monsoon forecasting is globally acclaimed, enhancing India's preparedness against weather-related hazards. The IMD's intelligent use of geospatial technology and remote sensing tools such as Doppler radars and meteorological satellites has improved its predictive capabilities, strengthening the nation's ability to adapt to unpredictable weather patterns.

11. Which one of the following statements best reflects the most logical and rational message conveyed by the author of the passage?

(a) The Indian Meteorological Department's (IMD) role is limited to providing weather forecasts for agricultural planning.

(b) The IMD's use of advanced technology has significantly enhanced India's ability to mitigate weather-related risks and adapt to changing weather patterns.

(c) The IMD's establishment during the colonial era hindered its progress and development in modern meteorological science.

(d) The IMD's focus on seismological assessments has overshadowed its contributions to climatological data collection and weather predictions.

Passage: 8

India's foray into lunar exploration has marked a significant milestone in the annals of space history. The nation's ambitious lunar program, epitomized by the Chandrayaan missions, has catapulted India into the vanguard of extraterrestrial research. Chandrayaan-1, India's maiden voyage to the moon, was a harbinger of technological prowess, deploying a plethora of instruments to meticulously map the lunar surface and confirm the presence of water molecules. Following this, Chandrayaan-2 sought to unravel the enigmatic secrets of the moon's south pole, an area unexplored by previous missions. Despite the vicissitudes faced during the soft-landing attempt, the orbiter continues to disseminate invaluable data, contributing to the corpus of lunar science. India's lunar endeavors exemplify the nation's indefatigable spirit and its unwavering commitment to expanding the frontiers of human knowledge.

12. Which of the assumptions given below is/are correct, based on the information provided in the passage?

    1. India's Chandrayaan missions have primarily focused on mapping the lunar surface and confirming the presence of water molecules.

    2. Chandrayaan-2 aimed to explore the moon's north pole, an area previously unexplored by any other lunar missions.

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

13. Which one of the following statements best reflects the crux of the passage?

    (a) India's Chandrayaan missions have faced numerous challenges, leading to setbacks in lunar exploration.

    (b) Chandrayaan-1 was a groundbreaking mission that confirmed the presence of water molecules on the moon's surface.

    (c) Despite challenges, India's Chandrayaan missions have contributed significantly to lunar science and exemplify the nation's commitment to space exploration.

    (d) Chandrayaan-2 successfully landed on the moon's south pole, achieving its primary objectives of lunar exploration.

Passage:9

India's engagement with the North Atlantic Treaty Organization (NATO) is a nuanced affair, marked by a confluence of strategic autonomy and pragmatic diplomacy. Historically non-aligned, India has eschewed formal alliances, yet contemporary geopolitical flux has necessitated a recalibration of relations. While India has not sought NATO membership, it recognizes the exigencies of cooperating with global security architectures to counterbalance regional hegemonies and transnational threats. The Indo-NATO discourse, therefore, oscillates between cautious engagement and the preservation of strategic independence. This delicate dance of diplomacy is

emblematic of India's broader foreign policy ethos, which prioritizes sovereign decision-making while navigating the complex web of international relations. As global power dynamics evolve, India's interaction with NATO will likely continue to reflect a balance between collaboration and the maintenance of its non-aligned legacy.

14. Which of the following assumptions can be inferred from the passage regarding India's engagement with NATO?

1. India's relationship with NATO is characterized by strategic autonomy.

2. India has historically refrained from forming formal alliances.

3. Contemporary geopolitical changes have compelled India to reassess its relations with NATO.

4. India actively seeks NATO membership to counter regional threats.

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

15. Which one of the following statements encapsulates the main idea of the passage?

    (a) India's non-alignment policy has hindered its ability to address global security challenges effectively.

    (b) India's engagement with NATO reflects a balance between strategic autonomy and pragmatic cooperation.

    (c) India's reluctance to join NATO stems from a lack of interest in global security architectures.

    (d) India's foreign policy prioritizes formal alliances over sovereign decision-making in international relations.

Passage: 10

The Zoological Survey of India (ZSI) stands as a bastion of faunal research, underpinning the conservation and systematic study of India's diverse and copious wildlife. Helmed by the eminent entomologist Dr. Dhriti Banerjee, ZSI operates as the fulcrum for zoological exploration and taxonomy, with a sprawling network of regional centers and a cadre of approximately 300 scientists. Its inception, rooted in the annals of the Indian Museum's Zoological Section, reflects a continuum of the scientific pursuit initiated by the Asiatic Society of Bengal. The institution's multifarious contributions encompass a comprehensive faunal repository, bolstering the scientific community's understanding of species' phylogeny and biogeography

16. Which one of the following statements best reflects the crucial message conveyed by the author of the passage?

    (a) ZSI's primary focus is on documenting wildlife without emphasis on scientific research.

    (b) Dr. Dhriti Banerjee's leadership has led to a decline in the scientific relevance of ZSI.

    (c) ZSI's legacy is deeply rooted in historical scientific endeavors and continues to play a vital role in faunal research.

(d) ZSI's network of regional centers has hindered its ability to contribute meaningfully to zoological exploration and taxonomy.

17. A man borrowed a certain sum of money at the rate of 6 % per annum for the first two years, 9% per annum for the next three years, and 14% per annum for the period beyond 5 years. If he pays a total interest of Rs. 22,800 at the end of 9 years, find the amount he borrowed.

  (a) ₹24,000

  (b) ₹30,000

  (c) ₹22,000

  (d) None of these

18. The simple interest on a sum of money in 5 years at 12 % per annum is Rs. 400 less than the simple interest accrued on the same sum in 7 years at 10 % per annum. Find the sum.

  (a) ₹3500

  (b) ₹3000

  (c) ₹4500

  (d) ₹4000

19. A sum of money is put on CI for 2 years at 20%. It would fetch Rs 482 more if the interest is payable half yearly than if it were payable yearly. Find the sum.

  (a) ₹13,000

  (b) ₹17,000

  (c) ₹20,000

  (d) ₹23,000

20. Manish invested a sum of money at CI. It amounted to Rs 2420 in 2 years and Rs 2662 in 3 years. Find the rate percent per annum.

  (a) 10%

  (b) 15%

  (c) 20%

  (d) 25%

Given below is a question followed by two statements numbered I and II, each containing some information. You have to decide which of the statements is/are sufficient to answer the question. Read both the statements and decide the appropriate answer.

21. What is the code for beautiful' in a certain code language?

Statements :

I. In the same code language, 'She is beautiful' is written as 'Ta Re Na'.

II. In the same code language, 'Red beautiful flower' is written as 'Sa Ge Ta'.

  (a) Either statement I alone or statement II-alone is sufficient to answer the question.

  (b) Statement II alone is sufficient to answer the question, while statement I alone is not sufficient.

  (c) Both statements I and II together are necessary to answer the question.

  (d) Statement I alone is sufficient to answer the question, while statement II alone is not sufficient.

22. Consider the given question and decide which of the following statement is sufficient to answer the question.

What is the value of 14$20*8#4?

Statements:

1. $ implies -, * implies +, # implies ÷

2. 14$20*8 = 25

   (a) Statement 2 alone is sufficient while statement 1 alone is insufficient

   (b) Neither statement 1 or 2 is sufficient

   (c) Statement 1 alone is sufficient while statement 2 alone is insufficient

   (d) Both statement 1 and 2 are sufficient

23. Given below are two statements, followed by two conclusions, I and II. You have to consider the statement to be true even if they seem to be at variance from commonly known facts. You have to decide which of the given conclusions, if any, follow(s) from the given statements.

Statement 1: No quadrilaterals are polygons.

Statement 2: All polygons are rhombuses.

Conclusion I: Some rhombuses are quadrilaterals.

Conclusion II: Some rhombuses are polygons.

Neither I nor II follows

   (a) Neither I nor II follows

   (b) Only conclusion II follows

   (c) Only conclusion I follows

   (d) Both I and II follow

24. Directions: In the question below are given three statements followed by two conclusions I and II. You have to take the given statements to be true even if they seem to be at variance from commonly known facts. Read all the conclusions and then decide which of the given conclusions logically follows from the given statements disregarding commonly known facts.

Statements:

All sandals are shoes. Only a few shoes are flats. All flats are heels.

Conclusions:

I. Some sandals are flats.

II. All shoes can be flats is possible.

   (a) Only conclusion I follows

   (b) Only conclusion II follows

   (c) Both conclusion I and II follows

   (d) Neither conclusion I nor II follows

25. A alone can do a piece of work in 6 days and B alone in 8 days. A and B undertook to do it for Rs. 3200. With the help of C, they completed the work in 3 days. How much is to be paid to C?

   (a) Rs. 375

   (b) Rs. 400

   (c) Rs. 600

   (d) Rs. 800

26. A does 80% of a work in 20 days. He then calls in B and they together finish the remaining work in 3 days. How long B alone would take to do the whole work?

   (a) 23 days

   (b) 37 days

   (c) 37 ½ days

   (d) 40 days

27. Two pipes A and B can fill a tank in 60 minutes and 75 minutes respectively. There is also an outlet C. If A, B and C are opened together, the tank is full in 50 minutes. How much time will be taken by C to empty the full tank?

(a) 100 minutes

(b) 66 minutes

(c) 120 minutes

(d) None of these

28. Two taps A and B fill a tank in 24 minutes and 32 minutes respectively. If both the taps are opened simultaneously, after how many minutes tap B should be closed so that the tank fills up in 18 minutes.

(a) 20 minutes

(b) 12 minutes

(c) 8 minutes

(d) 4 minutes

29. If 2 * 3 = 12, 3 * 4 = 20 and 4 * 5 = 30, then 2 * 6 is

(a) 18

(b) 12

(c) 21

(d) None of these

30. If* means "is greater than", @ means `is less then'; and $ means "is equal to" and if a $ b and b @ c, then

(a) c * b

(b) b * c

(c) c * a

(d) Both (a) and (C)

31. A zoo has three monkey cages. 10 monkeys from Cage 1 is shifted to Cage 2 and 5 monkeys from cage 2 is shifted to Cage 3. Then what will happen to the average weight of monkeys in the zoo?

(a) It decreases

(b) It increases

(c) Remains same

(d) Data insufficient to draw any conclusions

32. Consider two statements and a Question:

Statement 1: The average marks of Athira in GS1, GS2 and GS3 is 90

Statement 2: The average marks of Athira in GS2, GS3 and GS4 is 100

Question: Did Athira score more marks in GS1 compared to GS4?

Which one of the following is correct in respect to the Question and the statements?

(a) Statement 1 alone is sufficient to answer the question

(b) Statement 2 alone is sufficient to answer the question

(c) Statement 1 and statement 2 together are sufficient to answer the question

(d) Both Statement 1 and statement 2 are not sufficient to answer the question

33. 50 students of a classroom was divided into two groups A and B of 25 students each. Now Consider the given statements with respect to a test conducted in the class:

Statement 1: In group A highest score is 70 and lowest score is 50.

Statement 2: In group B highest score is 90 and lowest score is 75.

If 5 students from group A is shifted to group B, then which of the following is definitely correct?

(a) Average score of group B will decrease

(b) Average score of group B will increase

(c) Average score of group A will decrease

(d) Average score of group A will increase

34. On each part of the dice, there are 6 letters B, C, D, E, F and G, as shown in the picture. What is the letter on the opposite part of the letter E?

(a) F
(b) G
(c) C
(d) B

35. A cube of side 125 cm is painted red on all the faces and then cut into smaller cubes of sides 25 cm each. Find the number of smaller cubes having at least two faces painted.

(a) 48
(b) 36
(c) 44
(d) 52

36. Evaluate:

$$(3\frac{1}{4} \div \{1\frac{1}{4} - \frac{1}{2}(2\frac{1}{2} - \overline{\frac{1}{4} - \frac{1}{6}})\})$$

(a) 78
(b) 108
(c) 55
(d) 68

37. Find the water image in the following figure.

(a)

(b)

(c)

(d) None of these

38. Mr. Kumar drives to work at an average speed of 48 km per hour. The time taken to cover the first 60% of the distance is 10 minutes more than the time taken to cover the remaining distance. How far is his office?

    (a) 30 km

    (b) 40 km

    (c) 60 km

    (d) 25 km

39. Mr. Kumar drives to work at an average speed of 48 km per hour. The time taken to cover the first 60% of the distance is 10 minutes more than the time taken to cover the remaining distance. How far is his office?

    (a) 17

    (b) 15

    (c) 16

    (d) 18

40. Two cars start towards each other, from two places A and B which are at a distance of 160 km. They start at the same time 08 :10 AM. If the speeds of the cars are 50 km and 30 km per hour respectively, they will meet each other at

    (a) 10:10 AM

    (b) 10:30 AM

    (c) 11:10 AM

    (d) 11:20 AM

41. Four letter-clusters have been given, out of which three are alike in some manner and one is different. Select the odd letter-cluster.

    (a) TYDI

    (b) AFKP

    (c) GKOV

    (d) KPUZ

42. Four number pairs have been given, out of which three are alike in some manner and one is different. Select the one that is different.

    (a) 17 - 54

    (b) 19 - 60

    (c) 14 - 42

    (d) More than one of the above

43. Ratio of ages of A and B before 6 years was 2: 3 then ratio of age of A and B after 10 years becomes 3:4. If the age of C is 1.5 times the present age of B, then find the age of C 11 years ago. Present age of A and B is to be taken as a and b respectively.

    (a) (2a - b)

    (b) (2b - a)

    (c) (2a + b)

    (d) (2b + a)

44. At present, Tarun is twice the age of Vishal and half the age of Tanvi. After four years, Tarun will be 1.5 times Vishal's age and Tanvi will be 2.5 times of Vishal's age. What is Tanvi's present age?

    (a) 12 years

    (b) 8 years

    (c) 20 years

    (d) 16 years

45. **Directions:** Complete the sentences given below sing the correct alternative.

If today is the 12th of December, the next month will be

(a) January

(b) February

(c) April

(d) More than one of the above

46. If 3 March 2020 was Tuesday, then what was the day of the week on 3 February 2019?

(a) Wednesday

(b) Friday

(c) Sunday

(d) Monday

47. A bag contains 15 red balls and 20 black balls. Each ball is numbered either 1 or 2 or 3. 20% of the red balls are numbered 1 and 40% of them are numbered 3. Similarly, among the black balls, 45% are numbered 2 and 30% are numbered 3. A boy picks a ball at random. He wins if the ball is red and numbered 3 or if it is black and numbered 1 or 2. What are the chances of his winning?

(a) ½

(b) 4/7

(c) 5/9

(d) 12/13

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

Passage: 1

The advent of the Bharatiya Nyaya Sanhita (BNS) heralds a paradigmatic shift in the Indian criminal jurisprudence, particularly with the incorporation of e-evidence within its legal ambit. The BNS, alongside the Bharatiya Nagarik Suraksha Sanhita and Bharatiya Sakshya Adhiniyam, supplants the archaic Indian Penal Code and Indian Evidence Act, thereby recalibrating the evidentiary mechanisms to be consonant with the exigencies of the digital era. The legislation stipulates a stringent criterion for the admissibility of electronic records, necessitating expert certification to substantiate the integrity of such evidence. This prescriptive measure aims to mitigate the potential for spoliation or manipulation of digital data, ensuring that the veracity of e-evidence is meticulously scrutinized before judicial forums.

48. Which of the assumptions given below is/are correct based on the passage?

1. The Bharatiya Nyaya Sanhita (BNS) is primarily focused on revamping the Indian criminal jurisprudence by integrating e-evidence.

2. The incorporation of e-evidence within the legal framework under BNS eliminates the need for expert certification in digital data integrity.

(a) Only 1

(b) Only 2

(c) Both 1 and 2

(d) Neither 1 nor 2

49. Which one of the following statements best reflects the crux of the passage?

   (a) The BNS has replaced the Indian Penal Code and Indian Evidence Act, ushering in a new era of legal regulations.

   (b) The BNS introduces stringent measures for the admissibility of electronic records, emphasizing the importance of expert certification.

   (c) The BNS prioritizes the integration of e-evidence over traditional forms of evidence in legal proceedings.

   (d) The BNS focuses on simplifying legal processes by reducing the criteria for admitting electronic records in court.

   Passage: 2

The option of 'None of the Above' (NOTA), proffered in electoral systems, ostensibly empowers the electorate with a mechanism to express dissent. However, it engenders several conundrums. Primarily, NOTA votes contribute to electoral quiescence rather than active political engagement. They are often misconstrued as voter apathy instead of a deliberate denunciation of the candidates presented. Furthermore, the current implementation of NOTA is largely symbolic, as it lacks the capacity to influence electoral outcomes substantively. Even if NOTA secures the majority, it does not necessitate a re-election or the preclusion of the listed candidates from future ballots, thus rendering the vote inefficacious.

50. Based on the assumptions which of the assumptions given above regarding is/ are correct?

   1. NOTA has the capacity to substantially influence electoral outcomes.

   2. NOTA votes are often misunderstood as voter apathy.

   3. NOTA votes contribute to active political engagement.

   4. NOTA secures majority votes, leading to a re-election or exclusion of candidates from future ballots.

   (a) 1 and 2 only

   (b) 2 and 3 only

   (c) 1, 2, and 3 only

   (d) 1, 2, 3, and 4

51. Which one of the following statements best reflects the crux of the passage?

   (a) NOTA is a mechanism that effectively empowers voters to bring about significant changes in electoral outcomes.

   (b) NOTA, although symbolic in its current implementation, has the potential to revolutionize electoral processes and outcomes

   (c) NOTA has the power to trigger re-elections or prevent listed candidates from appearing on future ballots, making it a potent tool for political change.

   (d) NOTA votes are often wrongly interpreted as a lack of interest in politics, rather than a deliberate rejection of available candidates.

Passage: 3

The Genome India Project (GIP), a monumental and avant-garde initiative, was inaugurated by the Department of Biotechnology, Government of India, with the lofty aspiration of sequencing 10,000 genomes from the diverse Indian populace. This ambitious endeavor aims to construct an exhaustive compendium of genetic variations, capturing the quintessential heterogeneity of the Indian demographic tapestry. By meticulously cataloging these genetic discrepancies, GIP seeks to elucidate the intricate tapestry of genetic predispositions to diseases endemic to the Indian subcontinent. The project's scope is not merely confined to the realm of healthcare; it extends its ramifications to the precincts of agriculture and biotechnology, potentially revolutionizing these sectors through the prism of genetic insights.

52. Which one of the following statements best implies the most rational assumption that can be made from the passage?

    (a) The Genome India Project's scope extends beyond healthcare to include agriculture and biotechnology sectors, leveraging genetic insights for broader societal impact.

    (b) The Genome India Project is solely focused on healthcare advancements and genetic disease research.

    (c) The Genome India Project aims to sequence 10,000 genomes to establish a genetic hierarchy among different Indian demographics.

    (d) The Genome India Project is primarily a government initiative without significant involvement from private biotech companies.

Passage: 4

The National Initiative for Proficiency in Reading with Understanding and Numeracy (NIPUN Bharat) represents a paradigmatic shift in India's pedagogical approach, aiming to inculcate foundational literacy and numeracy among primary school students by 2025. This ambitious endeavour, predicated on the tenets of the National Education Policy 2020, seeks to fortify the bedrock of education through a meticulously stratified implementation strategy. By fostering an environment conducive to early cognitive development, NIPUN Bharat envisages a future where every child possesses the acumen to navigate the complexities of language and arithmetic with aplomb. The initiative underscores the quintessential role of foundational education in ameliorating the socio-economic fabric of the nation, thereby catalysing an all-encompassing developmental trajectory for India's burgeoning youth populace.

53. Based on the passage, which of the following assumptions can be reasonably inferred?

    (a) NIPUN Bharat aims to introduce advanced subjects to primary school students by 2025.

    (b) The National Education Policy 2020 does not support the objectives of NIPUN Bharat.

(c) NIPUN Bharat prioritizes foundational literacy and numeracy for primary school students.

(d) NIPUN Bharat excludes children from disadvantaged backgrounds in its implementation strategy.

Passage: 5

The establishment of Junior Red Cross (JRC) units in schools across India epitomizes a pivotal stride towards holistic student development. The JRC, a preeminent auxiliary of the Indian Red Cross Society (IRCS), serves as an indispensable conduit for instilling humanitarian values, fostering resilience, and nurturing a sense of civic duty among the youth cohort. This venerable institution empowers students with the acumen to navigate exigencies, equipping them with essential life skills and fortitude. Moreover, the JRC engenders a culture of empathy, altruism, and social responsibility, imbuing young minds with a profound understanding of global citizenship and solidarity. As an invaluable educational adjunct, the JRC augments the scholastic milieu, cultivating conscientious leaders poised to effectuate positive societal transformation.

54. Which of the assumptions given below regarding the establishment of Junior Red Cross (JRC) units in schools in India are valid, based on the passage?

1. The JRC fosters resilience and instils humanitarian values.

2. The JRC empowers students with essential life skills.

3. The JRC focuses primarily on academic excellence.

4. The JRC is limited in its scope to a particular region in India.

Choose the correct option:

(a) 1 and 2 only

(b) 1, 2, and 4 only

(c) 1, 2, and 3 only

(d) 1, 2, 3, and 4

55. Which one of the following statements best reflects the essence of the passage regarding the establishment of Junior Red Cross (JRC) units in schools in India?

(a) The JRC primarily aims to enhance academic performance among students.

(b) The JRC is a global organization focused on international aid.

(c) The JRC plays a crucial role in nurturing humanitarian values and fostering resilience among students in India.

(d) The JRC is a recent initiative that has not yet gained widespread popularity among Indian students.

Passage: 6

The National Highways Authority of India (NHAI) is a paramount organization, established with the preeminent objective of facilitating the expeditious development and maintenance of national highways. Conceived under the aegis of the Ministry of Road Transport and Highways, NHAI epitomizes the quintessence of an autonomous statutory authority, instrumental in the implementation of road infrastructure projects across the nation. Its inception, under the NHAI

Act of 1988, heralded a new epoch in the annals of Indian roadways, enabling the efficacious administration of a sprawling network of thoroughfares that are pivotal for bolstering economic integration and propelling the nation towards the zenith of infrastructural development.

56. Which of the following statements best reflects the logical inference from the passage given above?

 (a) The NHAI Act of 1988 was a significant milestone in the development of Indian roadways.

 (b) The NHAI primarily focuses on the maintenance of state highways.

 (c) The NHAI operates independently of the Ministry of Road Transport and Highways.

 (d) The NHAI was established to oversee the construction of international airports in India.

57. In the series _b_a_ba_b_abab_aab; fill in the six blanks (_) using one of the following given four choices such that the series follows a specific order.

 (a) bababa

 (b) baabba

 (c) bbaabb

 (d) ababab

58. The length and breadth of a rectangle are in the ratio 3 : 2. If the length is increased by 5 m keeping the breadth same, the new area of rectangle is 2600 m2. What is the perimeter of the original rectangle?

 (a) 320 m

 (b) 300 m

 (c) 295 m

 (d) 200 m

59. Direction: Go through the passage given below and answer the question based on it.

A university has four major departments: Engineering, Humanities, Business, and Science. Each department has its own staff, distributed as follows: The Engineering department employs 1200 individuals, which accounts for 30% of the university's total staff. The Humanities department comprises 20% of the total staff. The Business department, known for its smaller size, has 800 staff members. The remaining staff members are employed in the Science department.

Calculate the ratio of staff members in the Engineering department to those in the Science department.

 (a) 1 : 1

 (b) 1 : 2

 (c) 1 : 5

 (d) 1 : 4

60. Direction: Go through the passage given below and answer the question based on it.

A university has four major departments: Engineering, Humanities, Business, and Science. Each department has its own staff, distributed as follows: The Engineering department employs 1200 individuals, which accounts for 30% of the university's total staff. The Humanities department comprises 20% of the total staff. The Business department, known for its smaller size, has 800 staff members. The remaining staff members are employed in the Science department.

If the university plans to increase the staff in the Business department by 25%, how many new staff members will this involve?

(a) 100

(b) 150

(c) 250

(d) 200

61. A person lives in a remote village which is quite far from the city and the bus stop is also three hours away from that village. The villager's landlord is trying to occupy the poor villager's land by force. You are the District Magistrate and busy in a meeting called by a State Minister. The villager has come all the way, by bus and on foot, to see you and give an application seeking protection from the powerful landlord. The villager keeps on waiting outside the meeting hall for an hour. You come out of the meeting and are rushing to another meeting. The villager follows you to submit his application. What would you do?

(a) Tell him that the matter is actually to be dealt by a junior officer and that he should give the application to him.

(b) Tell him to wait for another two hours till you come back from your next meeting.

(c) Call one of your senior subordinate officers and ask him/her to solve the villager's problem.

(d) Quickly take the application from him, ask few relevant questions regarding his problem and then proceed to the meeting.
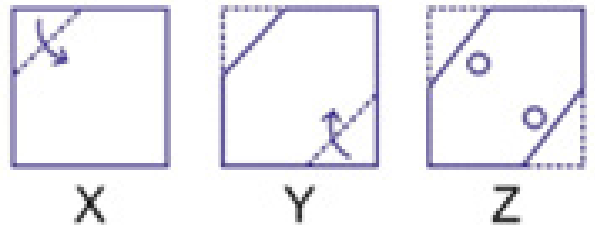
62. The points scored by a Kabaddi team in a series of matches are as follows:

17, 3, 7, 27, 15, 5, 14, 8, 10, 25, 50, 10, 8, 7, 18, 29

The median of the points scored by the team is-

(a) 18

(b) 12

(c) 10

(d) 25

63. The following questions consist of a set of three figures X, Y and Z showing a sequence of folding of a piece of paper. Fig (Z) shows the manner in which the folded paper has been cut. These three figures are followed by four answer figures from which you have to choose a figure which would most closely resemble the unfolded form fig. (Z)

(a)

(b)

(c)

(d) None of these

64. Six persons Marcie, Darcie, Gracie, Tracie, Farcie and Jerry are six persons sitting around a circular table facing towards the center. Jerry is sitting opposite Darcie. Tracie is sitting equidistant to Jerry and Gracie. Farcie is sitting to the immediate left of Marcie. Marcie is not an immediate neighbour of Darcie.

What is the position of Gracie with respect to Farcie?

   (a) Second to the right
   (b) Second to the left
   (c) Third to the left
   (d) More than one of the above

Directions for Questions 65 to 66: Read the given information carefully and answer the questions that follow.

Eleven friends M, N, O, P, Q, R, S, T, U, V and W are sitting in the first row of the stadium watching a cricket match.

T is to the immediate left of P and third to the right of U.

V is the immediate neighbour of M and N and third to the left of S.

M is the second to the right of Q, who is at one of the ends.

R is sitting next to the right of P and P is second to the right of O.

Cvv. CK.

65. Who is sitting in the center of the row?

   (a) N
   (b) O
   (c) S
   (d) U

66. Which of the following people are sitting to the right of S?

   (a) OTPQ
   (b) OTPR
   (c) UNVMxxJ
   (d) cccc

67. If 'A' denotes '+', 'B' denotes '×', 'C' denotes '−' and 'D' denotes '÷', then what will come in place of '?' in the following equation?

18 A 23 C 6 B (96 D 16) A 3 B 12 = ?

   (a) 44
   (b) 41
   (c) 20
   (d) More than one of the above

68. The ratio of milk and water in a mixture of 240 litres is 3 : 2. 40 litres of the mixture is taken out and 9 litres of milk to be added. Find the final ratio between milk and water.

   (a) 93 : 15
   (b) 45 : 24
   (c) 8 : 7
   (d) 129 : 80

69. A farmer raises chickens and horses on a farm. In total he has 35 animals whereas the total number of legs are 100. Find the number of horses he has.

   (a) 20
   (b) 15
   (c) 18
   (d) More than one of the above

70. In 65 litres of a mixture of kerosene and petrol, the ratio of kerosene to petrol is 3 : 2. In order to make this ratio 4 : 5, how many litres of petrol should be added to the given mixture?

(a) 29.25

(b) 24.5

(c) 23.25

(d) 22.75

71. A boat goes 20 km upstream and 30km downstream in 2 hours 32 minutes. If speed of stream is 5 km/h, what is speed of boat in still water in km/h?

(a) 20

(b) 15

(c) 25

(d) More than one of the above

72. Find the time taken by a boatman to travel a distance of 150 km downstream where downstream speed of boatman is 250 percent of upstream speed of boatman. Speed of stream is 15 km/hr.

(a) 3 hours

(b) 6 hours

(c) 4 hours

(d) More than one of the above

73. From a group of 9 friends, 4 friends have to be selected. In how many ways can the 4 friends be selected such that one of them is always selected?

(a) 68

(b) 56

(c) 76

(d) 48

74. A committee of 3 persons in which at least one is woman, is to be formed by choosing from three men and 3 women. In how many different ways this can be done?

(a) 20

(b) 19

(c) 120

(d) 420

75. The position of how many digit(s) in the number 381576 will remain the same after the number is arranged in the ascending order?

(a) 1

(b) 2

(c) 3

(d) None of these

76. Two bus tickets from city Amb to Sunhet and three tickets from city Amb to Dehra cost Rs. 77 but three tickets from city Amb to Sunhet and two tickets from city Amb to Dehra cost Rs. 73. What are the fares for cities Sunhet and Dehra from Amb?

(a) Rs. 4, Rs. 23

(b) Rs. 13, Rs. 17

(c) Rs. 15, Rs. 14

(d) Rs. 17, Rs. 13

77. Hit bullseye a premier institute organized a sports meet for its students where 1/5 of the girls and 1/8 of the boys participated. What was the total fraction of the students who had actually taken part?

(a) 2/13

(b) 1/40

(c) 13/40

(d) Data inadequate

78. Some friends planned on a leisure trip where they had planned Rs.96 on eatables. 4 of them did not come. So the rest of them had to pay Rs. 4 each extra. The number of people who turned up on the trip was

 (a) 8

 (b) 12

 (c) 16

 (d) 24

79. In the following number series a wrong number is given. Find out the wrong number.

 150, 450, 750, 1060, 1350, 1650, 1950

 (a) 1060

 (b) 1950

 (c) 450

 (d) 1350

80. Complete the series 5690, 5121, 4552, 3983, 3414, 2845?

 (a) 2276

 (b) 2516

 (c) 2356

 (d) 2456

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SPACE FOR ROUGH WORK

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