



# BSC Career Guidance & IAS Academy

## Bangalore

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## TEST BOOKLET GENERAL STUDIES (P2) -2025 - ESMT- 3

Test Booklet Series

A

Time Allowed: 2 Hour

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. You have to enter your Roll Number on the Test Booklet in the Box provide alongside. **DO NOT** Write *anything* else on the Test Booklet.
3. This Test Booklet contains **80 items** (questions). Each item is printed only 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.
4. You have to mark all your responses **ONLY** on the separate Answer Sheet provided. See directions in the Answer Sheet.
5. All items carry equal marks.
6. 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.
7. 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 takeaway with you the Test Booklet.
8. Sheets for rough work are appended in the Test Booklet at the end.
9. Penalty for wrong answers: THERE WILL BE PENALTY FOR WRONG ANSWERS MARKED BY A CANDIDATE IN THE OBJECTIVE TYPE QUESTION PAPERS.  
(i) There are four alternatives for the answer to every question. For each question for which a wrong answer has been given by the candidate, **one-third 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.

**DO NOT OPEN THIS BOOKLET UNTIL YOU ARE ASKED TO DO SO**

**Directions for the following 3 (three) 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**

Military discipline is no longer a mere means of preventing looting, desertion or failure to obey orders among the troops; it has become a basic technique to enable the army to exist, not as an assembled crowd, but as a unity that derives from this very unity an increase in its forces; discipline increases the skill of each individual, coordinates these skills, accelerates movements, increases firepower, broadens the fronts of attack without reducing their vigour, increase the capacity for resistance, etc. The discipline of the workshop in industries, while remaining a way of enforcing respect for the regulations and authorities, of preventing thefts or losses, tends to increase aptitudes, speeds, output and therefore profits; it still exerts a moral influence over behaviour, but more and more it treats actions in terms of their results.

1. Which one of the following statements best reflects the most rational, logical and crucial message conveyed by the passage?
  - (a) Military discipline has undergone a fundamental transformation.
  - (b) Military discipline is essential for maximizing the combat effectiveness of an army.
  - (c) Discipline is a performance-oriented tool in industrial settings.
  - (d) Discipline has evolved from a mere regulatory tool to a strategic asset that enhances overall performance and efficiency.

**Passage – 2**

Counterintuitive as it may seem, the very contradictions that plague our professional lives – the doctor's struggle between cost and care, the musician's balancing act of artistic freedom and financial security – might hold the key to unlocking greater creativity and leadership potential. While the inherent tension of such opposing demands might suggest stress and stagnation, recent research paints a surprising picture. Studies reveal that individuals who cultivate a "paradox mindset," one that embraces rather than shuns these conflicting forces, exhibit increased creativity, adaptability, and output. The very constraints seemingly hindering performance become catalysts for improvement. This approach, far from arduous, can even lead to greater job satisfaction.

2. Which one of the following statements best reflects the crux of the passage?
  - (a) Doctors and musicians are most likely to experience job satisfaction in their professions.
  - (b) Facing pressure from opposing demands leads to increased stress and hinders creativity.
  - (c) Embracing contradictory demands can lead to greater creativity and job satisfaction.
  - (d) None of the above

3. The passage explores the benefits of a "paradox mindset" in professional life. Which of the following scenarios best exemplifies the potential application of this concept?

- (a) A manager needs to reduce costs while maintaining employee morale. He implements a new, streamlined process but also schedules regular team-building activities.
- (b) A teacher faces a bunch of disruptive students. He enforces classroom rules but also offers the students individualised support.
- (c) A doctor prioritises a patient's well-being, but also needs to consider the budget of the hospital. He recommends the most effective treatment while exploring alternative and cost-conscious options.
- (d) All of the above

4. Considering the onset of summers an individual purchases two air conditioners at a cost of Rs. 30,000 each. He gets the whole required amount financed from a NBFC at an interest rate of 10% compounded yearly. He agreed to pay the entire amount in three installments. At the end of first year, he paid a sum of Rs. 16,000 as his first installment. At the end of second year, he paid Rs. 20,000 as second installment. What will be the installment amount, if he decides to pay it at the end of third year?

- (a) Rs. 36,000
- (b) Rs. 38,500
- (c) Rs. 40,500
- (d) Rs. 56,000

5. Two trains cross each other in 17 seconds when moving in opposite directions, and in 1 minute 25 seconds when moving in the same direction. By what percentage should the speed of the slower train be increased for its speed to become equal to that of the faster train?

- (a) 33.33%
- (b) 50%
- (c) 25%
- (d) 15%

6. How many numbers lying between 100 and 1000 can be formed with the digits 0, 1, 2, 3, 4, 5, if repetition of digits is not allowed?

- (a) 120
- (b) 100
- (c) 90
- (d) 20

7. If the length of the smaller hand (i.e. hour hand) of a wall clock is 3.5 cm, then the area swept by it in 30 minutes would be:

- (a)  $1.2 \text{ cm}^2$
- (b)  $3.2 \text{ cm}^2$
- (c)  $2.6 \text{ cm}^2$
- (d)  $1.6 \text{ cm}^2$

8. Two six-digit numbers are formed using the digits 2, 0, 4, 7, 6, 5 and none of the digits is repeated. One of the numbers so formed is the greatest possible six-digit number that can be formed using the given digits and the second one is the smallest possible six-digit number that can be formed using the given digits. What will be the difference between the two numbers so formed?

- (a) 5,60,853
- (b) 4,53,219
- (c) 3,61,358
- (d) 2,06,535

9. A pole is to be erected at a point on the boundary of a circular park with a diameter of 29 meters, such that the difference in its linear distances from two diametrically opposite gates, A and B, on the boundary is 1 meter. At what distances from the two gates should the pole be erected?

(a) 24 meters, 25 meters  
 (b) 28 meters, 29 meters  
 (c) 20 meters, 21 meters  
 (d) 12 meters, 11 meters

10. In a multiplication of two numbers, Modhumita took 43 instead of taking 34 as one of the multipliers. As a result, the product was 153 more than the real product. What is the other multiplier?

(a) 19  
 (b) 23  
 (c) 17  
 (d) 13

11. A Question is given below followed by two Statements I and II.

Question: What are the values of the three positive integers A, B and C?

**Statement I:**  $AB = 20$   
**Statement II:**  $BC = 35$

Which one of the following is correct in respect of the above Question and the Statements?

(a) The question can be answered by using one of the statements alone, but cannot be answered using the other statement alone.  
 (b) The question can be answered by using either statement alone.  
 (c) The question can be answered by using both the statements together, but cannot be answered using either statement alone.  
 (d) The question cannot be answered even by using both the statements together.

12. A Question is given below followed by two Statements I and II.

Question: What is the profit earned by the shopkeeper in selling a pair of shoes?

**Statement I:** Marked price of a pair of shoes is Rs. 12800 and it is sold at a discount of 30%.

**Statement II:** The marked price of the pair of shoes is 60% more than the cost price.

Which one of the following is correct in respect of the above Question and the Statements?

(a) The question can be answered by using one of the statements alone, but cannot be answered using the other statement alone.  
 (b) (b) The question can be answered by using either statement alone.  
 (c) (c) The question can be answered by using both the statements together, but cannot be answered using either statement alone.  
 (d) (d) The question cannot be answered even by using both the statements together.

13. The first 20 multiples of 10 are multiplied together. How many zeros will be there at the end of the product?

(a) 21  
 (b) 24  
 (c) 124  
 (d) 20

14. If  $p$  and  $q$  are positive integers such that  $6p + 17 = R$  and  $9q + 7 = S$ , then which of the following could be true for the value of  $R + S$ ?

(a) Divisible by 9  
 (b) Multiple of 3  
 (c) Divisible by 6  
 (d) Multiple of 4

15. What is the remainder when  $1! + 2! + 3! + 4! + \dots + 500^{500}!$  is divided by 3?

- 1
- 0
- 3
- Can't be determined

16. A trader sells his goods at some profit. If he sells his goods at  $9/8^{\text{th}}$  times his original selling price, his profit doubles. Consider the following statements:

- Cost price of the goods is  $7/8^{\text{th}}$  times the selling price.
- He makes 14.28% profit in selling the goods.

Which of the statements given above is/are correct?

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

17. Efficiency of Z is 12.5% less than Y, while efficiency of Y is 60% more than X. If the difference between the number of days taken by X and Y to complete a work is 27 days, then find the time taken by all the three together to complete the same work?

- 18 days
- 16 days
- 12 days
- 15 days

**Directions for the following 3 (three) items:**

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

**Passage – 1**

The impact of the changing US energy outlook on its foreign policy continues to be a matter of discussion, particularly in the Middle East. US engagement in the Middle East will more likely be determined by other factors, including their role as a price taker in global energy markets, worries about terrorism, nuclear proliferation concerns and support for partners such as Israel. The 2013 spat with Saudi Arabia over US willingness to engage in dialogue with Iran and reluctance to bomb Syria may indicate, however, that American energy partners may be losing their sway in Washington. More confident in its energy security, and with a stronger economy benefiting from a domestic energy boom, the US may even be willing to engage itself more fully, in the Middle East or elsewhere, on an opportunistic basis.

18. Which one of the following statements best reflects the message of the author of the passage?

- The increasing energy independence of United States is likely to alter its foreign policy priorities in the Middle East.
- The relationship between US energy policy and its foreign policy is complex and multifaceted.
- The traditional role of US as a guarantor of stability in the Middle East is being challenged by new priorities and complexities.
- The decline of renewable energy sources will significantly impact US foreign policy.

**Passage – 2**

At a time when food security is arguably one of the most

critical challenges facing the world, Asian women are a group facing a significant level of vulnerability to this basic essential. What complicates the situation is the fact that Asia is extremely diverse in terms of religion, geography, cultural practices and levels of economic development. These are variables which have both a direct and an indirect bearing on gender biases within South Asia and Southeast Asia. Being primary procurers and distributors but not necessarily commensurate consumers of food exposes these women to several risks. The lack of adequate and nutritionally rich food directly affects their overall health. These problems trickle down to the extent that children born to such women are malnourished, underdeveloped and prone to diseases, aggravating these women's problems.

**19.** Which one of the following statements best sums up the passage given above?

- (a) Asian women disproportionately bear the brunt of food insecurity due to a complex interplay of multiple factors.
- (b) Food security is a critical challenge worldwide, impacting millions and requiring urgent attention and sustainable solutions.
- (c) Malnutrition among children is a direct consequence of food insecurity faced by Asian women.
- (d) Asian women possess adequate knowledge of nutrition, but choose to prioritize food distribution over consumption for their families.

### ***Passage – 3***

Every day we are bombarded by advertisements of every sort. The goal of these ads is to sell us cars, computers, video games, clothes, and even political candidates. It's been estimated that over \$500 billion is spent annually on advertising worldwide. There is substantial evidence that advertising is effective in changing attitudes. After the R. J. Reynolds Company started airing its Joe Camel ads for cigarettes on TV in the 1980s, Camel's share of cigarette sales to children increased dramatically. But persuasion can also have positive outcomes, like that of positive ads. For instance, a review of the research literature indicates that mass-media anti-smoking campaigns are associated with reduced smoking rates among both adults and youths. Persuasion is also used to encourage people to donate to charitable causes, to volunteer to give blood and to engage in healthy behaviors.

**20.** Which of the following is the most logical and rational inference that can be drawn from the above passage?

- (a) Negative advertisements like ads for cigarettes must be banned as they have disastrous impact on children.
- (b) Bombardment of people by advertisements of all sorts is changing the attitude but not the behavior of people.
- (c) Advertisements to bring positive outcomes (like donation to charitable trusts) must be promoted through electronic means only as the target audience has internet access.

Depending on the nature, the outcomes of persuasive messages may be both positive and negative.

21. A farmer has 945 cows and 2,475 buffaloes. He wants to divide them into the minimum number of groups such that each group contains only one type of animal, and each group has an equal number of animals. Find the minimum possible number of such groups.

(a) 50  
(b) 20  
(c) 76  
(d) 35

22. Ram and Shyam work for a courier company. When Ram delivers alone, he delivers 43 parcels in  $r$  hours. When both Ram and Shyam deliver simultaneously at their optimum capacity, they deliver 43 parcels in  $t$  hours. How many hours will be taken by Shyam, working alone, in delivering 43 parcels?

(a)  $r/(r + t)$   
(b)  $t/(r + t)$   
(c)  $rt/(r + t)$   
(d)  $rt/(r - t)$

23. If  $a^{60}b^{39}c^{79} > 0$ , then which of the following must be true?

(a)  $ab$  is positive  
(b)  $bc$  is positive  
(c)  $abc$  is positive  
(d)  $ac$  is positive

24. 40% of Coffee house's revenue comes from coffee and sandwich and 55% of its revenue comes from cutlets and chowmien. If coffee house increases its price of coffee and sandwich by Rs. 15% and price of cutlets and chowmien by 20%, then what will be the percentage increase in overall revenue of the coffee house?

(a) 28.50%  
(b) 32.85%  
(c) 25.58%  
(d) 17.89%

25. A baker makes some chocolate chip cookies and peanut butter cookies for a school bake sale. He makes chocolate chip cookies only in batches of 9 and peanut butter cookies only in batches of 11. If he makes exactly a total of 136 cookies for the bake sale, what is the minimum number of chocolate chip cookies he can make?

(a) 45  
(b) 72  
(c) 55  
(d) 81

***Directions for the following 3 (three) 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 – I***

"The only truly serious philosophical question cannot be answered," wrote Albert Camus in his essay "The Myth of Sisyphus." This seemingly paradoxical statement highlights the core of his philosophy of the Absurd. The Absurd arises from the fundamental dissonance between humanity's inherent desire to find meaning in a universe that appears indifferent. We crave order and purpose, yet the universe offers no inherent answers. Camus argues that acknowledging this absurdity, rather than seeking comfort in illusions, liberates us to create our meaning and embrace the freedom to live authentically in a meaningless world.

26. Which one of the following statements best

reflects the central idea of the passage given above?

- (a) Human beings experience “Absurd” because the universe is inherently chaotic and unpredictable.
- (b) Humans experience “Absurd” because we have an innate desire for comfort and the universe provides none.
- (c) Humans experience “Absurd” because of the fundamental conflict between our search for meaning and a universe that offers no inherent purpose.
- (d) Humans experience “Absurd” because philosophical questions are ultimately unanswerable.

27. Which one of the following statements best reflects the most logical and rational implication of “Absurdism” on a person’s worldview as conveyed by the passage?

- (a) It encourages a focus on religious teachings for ultimate meaning.
- (b) It emphasises accepting the lack of control over external events.
- (c) It promotes a constant search for hidden messages in the universe.
- (d) It advocates for a passive approach to life, avoiding any challenges.

### ***Passage – 2***

The European Central Bank and the Bank of Japan, along with others, have implemented negative interest rates by charging, rather than paying, interest rates on the reserves that commercial banks hold at the central bank. The notion that policy interest rates cannot decline below zero derives from the idea that agents would rather hoard cash than deposit money in accounts that charge interest rates. Unconventional monetary policies can contribute to financial stability as lower interest rates help to stimulate the economy and improve borrowers’ ability to stay current with their loans. Concerns have been raised about side effects that might endanger financial stability, even when unconventional monetary policy is successful in stimulating the economy. Central banks may also come under heavy political pressure if their reluctance to adopt unconventional monetary measures leads to a more severe financial and economic crisis.

28. Which one of the following statements best reflects the critical message conveyed by the passage given above?

- (a) Central banks are likely to implement negative interest rates in response to a weak economy.
- (b) Negative interest rates could discourage saving and encourage spending.
- (c) Unconventional monetary policies can stimulate the economy, but their effectiveness may pose a risk to financial stability.
- (d) Negative interest rates are advantageous for commercial banks as they can borrow money at lower costs and potentially increase lending.

29. The table given below shows the daily income (in Rs.) of 50 persons. Study the table carefully and answer the question that follows.

Income (in Rs.)	No. of persons
Less than 300	12
Less than 350	26
Less than 400	34
Less than 450	40
Less than 500	50

How many persons earn Rs. 300 or more but less than 400?

(a) 8  
 (b) 12  
 (c) 22  
 (d) 38

30. Rajendra chacha is a dishonest seller. He marks up the price of sugar by 20%, and then offers a 10% discount. He uses faulty weights and gives 875 gm instead of 1000 gm. What must be his profit percent?

(a) 28.57%  
 (b) 23.42%  
 (c) 25.79%  
 (d) 22.16%

31. A man borrowed Rs. 40000 from his friend at 8% simple interest per year and decided to return it in two instalments. At the end of second year, he paid back a certain amount and at the end of fifth year, he paid back Rs. 35960 and cleared his debt. What was the amount that he paid back after the second year?

(a) Rs. 15400  
 (b) Rs. 17400  
 (c) Rs. 16400  
 (d) Rs. 17000

32. On the occasion of Teacher's Day, samosas are to be distributed among children at a school. If 2 samosas are given to each child, 10 samosas remain. If 3 samosas are given to each child, 15 children do not receive any samosas. What is the difference between the number of children and the number of samosas?

(a) 30  
 (b) 45  
 (c) 55  
 (d) 65

33. A Question is given below followed by two Statements I and II.

Question: A shopkeeper mixed 7 kg of type 1 cashews with 12 kg of type 2 cashews. What is the price per kg of the mixed variety of cashews?

Statement-I: He sold the mixture at 37.5% above the cost price of type 1 cashews.

Statement-II: He earned no profit and no loss in the whole transaction.

Which one of the following is correct in respect of the above Question and the Statements?

(a) The Question can be answered by using one of the Statements alone, but cannot be answered using the other Statement alone.

(b) The Question can be answered by using either Statement alone.

(c) The Question can be answered by using both the Statements together, but cannot be answered using either Statement alone.

(d) The Question cannot be answered even by using both the Statements together.

34. Consider the fractions  $7/9$ ,  $5/8$ ,  $8/11$ ,  $11/15$ , and  $4/7$ . Which of the following statements regarding these fractions is/are **not** correct?

- $4/7$  is second from right side, when all the fractions are arranged in descending order of their values.
- $8/11$  and  $11/15$  will be the third and second fraction respectively from left, when all the fractions are arranged in ascending order of their values.
- $7/9$  is the highest fraction.

- Only I and II
- Only I and III
- Only III
- Only II and III

35. The recurring decimal representation  $0.171717\ldots$  is equivalent to

- $3/11$
- $17/99$
- $83/99$
- $34/33$

**Directions for the following 3 (three) items:**

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

**Passage – 1**

Perhaps the most visible function of local governance structures is to deliver basic services. Managing the delivery of these services at the local level can contribute to sustaining peace in several ways. When provided by local governments in a fair, equitable, and reliable manner, service delivery can also increase the visibility, credibility, and legitimacy of the state. Beyond service delivery, local governments have an important role to play in sustainable development more broadly. Local governments often lack sufficient financial, technical, or human resources or statutory authority, causing them to fail to meet expectations. A failure to respond to people's needs or to meet their expectations can undermine peace. Although local governments are generally in front when it comes to service delivery, other local actors can also play a role.

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

- Local governments are closer to the people they serve than the national governments.
- People have realistic expectations of what local governments can deliver.

Which of the assumptions given above is/are correct?

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

**Passage – 2**

Trade liberalisation is not automatically or always associated with economic growth, let alone poverty reduction or sustainable development. Signing up for unbalanced agreements has the potential to lead to violations of the economic and social rights of people. Helping developing and least-developed countries secure a share in the growth of international trade commensurate with the needs of their economic development has steadily gained importance in recent years. The WTO provides no explicit definition as to which country is considered to be a developing country. The status of a member as a developing country is to a large extent based on self-selection and members announce whether they consider themselves developing countries. Concerns have been raised about the effectiveness of the numerous provisions on special and differential treatment for developing countries, which have been considered as best-endeavour provisions that are not enforceable.

37. With reference to the above passage, which of

the following inferences can be drawn?

1. There might be inconsistencies in the criteria used to define a developing country across different members.
2. Developing and least-developed countries (LDCs) are probably not currently receiving a fair share of the benefits of international trade.

Which of the statements given above is/are true?

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

***Passage – 3***

The chaos of Italian Renaissance politics had invited experiments in political thought and practice. Despotisms – sometimes beneficent ones – ruled much of Italy, though several cities, like Machiavelli's Florence, had elements of a republican regime dating back to the city's founding. To Machiavelli, the lack of a want of an art of politics was abundantly clear: the failure of so many Italian regimes and the failure to secure stability and prosperity in a land so promising, demonstrated the dire need to revive it. To be sure, Machiavelli's relationship to Renaissance humanism was deeply ambivalent; whereas he would offer a biting critique of humanism, its influence upon him was striking, and as Renaissance scholarship has abundantly shown, he was greatly indebted to many of its achievements.

**38.** What is the main idea of the passage?

- (a) Political instability led to the need for a renewed focus on political practice.
- (b) While most of Italy was ruled by despotic regimes, some Italian cities, like Florence, had a republican form of government.
- (c) Niccolo Machiavelli believed there was a need to revive the art of politics to achieve stability and prosperity.
- (d) The political instability of the Renaissance led to the flourishing of the arts.

**39.** There was a race of 3000 meters between A & B on a circular track of 750 meters. They start from the same point and in the same direction. First time they meet during the race is after 5 minutes of starting the race. Find the time taken by B to complete the race, if he runs at half the speed of A.

- (a) 20 minutes
- (b) 18 minutes
- (c) 15 minutes
- (d) 10 minutes

**40.** A, B, and C can complete a piece of work individually in 12 hours, 18 hours, and 36 hours, respectively. They work alternately—A works in the 1st hour, B in the 2nd hour, C in the 3rd hour, and then A again in the 4th hour, and so on. If they continue working in this manner, how many hours will be needed to complete the work?

- (a) 15 hours
- (b) 18 hours
- (c) 22 hours
- (d) 16 hours

41. There are three natural numbers,  $x$ ,  $y$  and  $z$ . We can select any one number from these three numbers and add to it the average of the rest of the two remaining numbers. Obviously, it can be done in three ways, and so we get three numbers 36, 30 and 26, as a resultant of this operation. Which of the following relations can be established between  $x$ ,  $y$  and  $z$ ?

(a)  $x = y = z$   
 (b)  $y > x > z$   
 (c)  $x = y > z$   
 (d)  $x > y = z$

42. On 12<sup>th</sup> May, 2004, Arjun's mother gave him a piggy bank, which had Rs. 130. On 13<sup>th</sup> May, he took out Rupee 1 from the piggy bank to buy a toffee. Next day, i.e. on 14<sup>th</sup> May, he took Rs. 2 from the piggy bank to buy 2 toffees. Next day, i.e. on 15<sup>th</sup> May, he took two times more money from the piggy bank than that on the previous day, and so on. At the end of which date was the amount in the piggy bank the smallest odd prime number?

(a) 15<sup>th</sup> May  
 (b) 17<sup>th</sup> May  
 (c) 19<sup>th</sup> May  
 (d) 18<sup>th</sup> May

43. The area of a circular field is 1386 square meter. If it takes 88 seconds for a man to complete two rounds of this circular field, then the speed of the man is:

(a) 4 m/s  
 (b) 5 m/s  
 (c) 3 m/s  
 (d) 6 m/s

44. In a class there are 200 students, which have been assigned roll numbers from 1-200. The students whose roll numbers are odd, are eligible for Maths. Students whose roll numbers are a multiple of 5, are eligible for Commerce, while the students whose roll numbers are perfect squares are eligible for Arts. The number of students who are not eligible for any of the three subjects is:

(a) 76  
 (b) 72  
 (c) 74  
 (d) 96

45. What is the rightmost digit preceding the zeros in the value of  $90^{20}$ ?

(a) 3  
 (b) 9  
 (c) 7  
 (d) 1

**Directions for the following 2 (two) 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**

The best way to rid public health and social welfare activities of politics is to put them into politics so definitely and so completely that the "politician," so-called, will always realize, in dealing with these subjects, that they are matters of such vast importance in the every-day life of the people that the voters will not tolerate their employment by the "organization" for its advancement, to the detriment of the agencies themselves. It is not difficult to establish a proper attitude towards social welfare activities in the mind of the politician. The politician is quick to seize upon popular policies. The one who does not soon go into the discard. Through a consistent working out of the law of natural selection, that kind of politician has, to a degree, become a relic of an older and less enlightened time.

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

- (a) Politicians are more likely to support social welfare activities that are popular with voters.
- (b) Involving public health and social welfare activities in politics will make politicians more empathetic.
- (c) Politicians are not capable of having genuine convictions about social welfare.
- (d) Politicians should prioritize public welfare above personal gains for the betterment of society.

**Passage – 2**

Traditionally, infrastructure investments have been financed with public funds. Governments were the main actors in this field, given the inherent public good nature of infrastructure and the positive externalities often generated by such facilities. However, public deficits, increased public debt to GDP ratios and, at times, the inability of the public sector to deliver efficient investment spending, have in many economies led to a reduction in the level of public funds allocated to infrastructure. Budgetary pressures have been compounded in some cases by the need to repair bank balance sheets and rebuild capital and liquidity buffers, owing in part to strengthened prudential regulation in the banking sector. As a consequence, it is increasingly acknowledged that alternative sources of financing are needed to support infrastructure development.

47. With reference to the above passage, the following assumptions have been made:

- 1. Government's role in infrastructure financing is not satisfactory till now.
- 2. Alternative sources of finance will definitely solve the problem of infrastructure financing in the country.

Which of the above assumptions is/are valid?

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

48. Consider the following:

- 1. 100 millilitres = 1 litre
- 2. 1 terabyte =  $10^6$  megabytes
- 3. 1 kilometre =  $10^{12}$  nanometres

Which of the above are correct?

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

49. Lata received a penalty notice of Rs. 2,000 from the police for not wearing a helmet. She claimed that the actual penalty for not wearing a helmet on a two-wheeler is Rs. 1,200, but she was issued a notice for Rs. 2,000. After her claim, the authorities realized there was an error in issuing the penalty. What is the percentage error in the penalty amount?

- (a) 92.5%
- (b) 66.66%
- (c) 36.66%
- (d) 88.28%

50. Consider the set of numbers from 1 to 70, which have 1 or 9 at the unit place (say Set X). Find which of the following options **cannot** be concluded.

- (a) There are only 7 prime numbers in set X.
- (b) 20% of numbers from 1 to 70 are in set X.
- (c) There are only 5 multiples of 3 in the range 1 to 70 that are in set X.
- (d) All can be concluded

**Directions for the following 4 (four) items:**

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

**Passage – 1**

The nearer men are to a common level of uniformity, the less are they inclined to believe blindly in any man or any class. But they are readier to trust the masses, and public opinion becomes more and more mistress of the world. So in democracies, public opinion has a strange power. It uses no persuasion to forward its beliefs, but by some mighty pressure of the mind of all upon the intelligence of each, it imposes its ideas and makes them penetrate men's very souls. The majority in the United States takes over the business of supplying the individual with a quantity of ready-made opinions and so relieves him of the necessity of forming his own. So there are many theories of philosophy, morality, and politics which everyone adopts unexamined on the faith of public opinion.

**51.** What is the main idea of the passage?

- (a) Public opinion holds immense power in democracies, shaping individual beliefs without explicit persuasion.
- (b) The inclination of people to believe less in individuals or classes when they are at a similar level of uniformity.
- (c) Public opinion exerts a powerful, subconscious influence on individuals.
- (d) Individuals in the United States are incapable of independent thought.

**Passage – 2**

The authoritarian ritualization of discourse is more striking where it affects the dialectical language itself. The requirements of competitive industrialization and the total subjection of man to the productive apparatus appear in the authoritarian transformation of the Marxist into the Stalinist and post-Stalinist language. These requirements, as interpreted by the leadership which controls the apparatus, define what is right and wrong, true and false. They leave no time and no space for a discussion which would project disruptive alternatives. This language no longer lends itself to discourse at all. It pronounces and, by the power of the apparatus, establishes facts—it is self-validating enunciation. The closed language does not demonstrate and explain—it communicates decision, dictum, and command. Where it is defined, the definition becomes "separation of good from evil".

**52.** With reference to the above passage, which of the following statements is correct?

- (a) Industrial societies must inevitably evolve into totalitarian states.
- (b) The leadership is inherently malicious or power-hungry.
- (c) Authoritarian regimes manipulate language to suppress dissent and maintain power.
- (d) The primary purpose of authoritarian language is to conceal economic exploitation.

***Passage – 3***

Saving lives through surgery is no longer exclusive to humans. Scientists now detail how Florida carpenter ants, a common, brown species native to its namesake, selectively treat the wounded limbs of fellow nestmates -- either by wound cleaning or amputation. When experimentally testing the effectiveness of these 'treatments,' not only did they aid in recovery, but the research team found the ants' choice of care catered to the type of injury presented to them. This is most probably the only case in which a sophisticated and systematic amputation of an individual by another member of its species occurs in the animal Kingdom.

**53.** Which one of the following options best reflects what is implied by the passage?

- (a) Florida Ants can empathise with the pain of their nestmates.
- (b) Florida Ants can communicate the severity of injuries to each other.
- (c) Florida Ants can make basic decisions about the most effective treatment.
- (d) Florida Ants can learn from past experiences and adapt their treatment methods.

***Passage – 4***

Now competitive and automated, the Rubik's Cube is perhaps an apt metaphor for all that has been lost and gained since 1974. Things are faster, and that sometimes means better. But with speed, people also lose something they need — the ability to sit, think and take something magical, a cube made of different coloured cubes, for example, and find out how it works. Now, a machine with more computing power than the smartest human can do it in seconds. Still, for those who want it, there's always a quiet moment to try to match Rubik's pace in solving this invention. The joy, after all, is not in only finding the solution.

**54.** Which one of the following statements best reflects the most logical message implied by the above passage?

- (a) Technological advancements are inherently negative, leading to a loss of critical thinking and problem-solving skills.
- (b) While speed and efficiency are valuable, the journey of discovery and the joy of independent solutions are equally important.
- (c) Humans will eventually be surpassed by machines in all intellectual pursuits, making activities like solving a Rubik's Cube irrelevant.
- (d) The nostalgia surrounding the pre-automation Rubik's Cube experience overshadows the benefits of faster solutions offered by technology.

**55.** There is a 70% chance that Raman will go to school and a 40% chance that he will go to Disneyland with his parents. If these events are independent, what is the probability that Raman will neither go to school nor go to Disneyland?

- (a) 15%
- (b) 20%
- (c) 30%
- (d) 18%

**56.** At a Teacher's Day function in a college, every student participates in at least one event—dance, music, or comedy—but no one participates in all three events. If 65 students participate in dance, 48 in music, 70 in comedy, and 23 in exactly two events, how many students are there in total?

- (a) 180
- (b) 160
- (c) 200
- (d) 190

57. In a village, 75% of the houses have at least one educated person, and 20% of them have someone in a government job. What percentage of houses in the village have no one in a government job?

- 80%
- 85%
- 60%
- 75%

58. Of two numbers, 6 times the smaller one is less than 5 times the larger one by 21. If the sum of the numbers is larger than 2 times their difference by 3, find the sum of the two numbers.

- 15
- 14
- 13
- 12

59. If  $55^9 + 56^9 + 57^9 + 58^9 + 59^9 + 60^9 + 61^9 + 62^9 + \dots + 171^9$  is divided by 226, the remainder would be:

- 113
- 110
- 90
- 180

60. A shepherd counted the heads of the animals/birds in the farm and found it to be 41. When he counted the legs, he found it to be 118. The farm only had hens, ducks and buffaloes and nothing else. If the number of ducks were  $\frac{2}{3}$ rd of the number of buffaloes, then how many ducks were there in the farm?

- 18
- 23
- 12
- 9

**Directions for the following 3 (three) items:**

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

**Passage – 1**

Contemporary industrial civilization demonstrates that it has reached the stage at which "the free society" can no longer be adequately defined in the traditional terms of economic, political, and intellectual liberties, not because these liberties have become insignificant, but because they are too significant to be confined within the traditional forms. New modes of realisation are needed, corresponding to the new capabilities of society.

61. The passage argues that traditional definitions of freedom are insufficient in contemporary society because:

- These freedoms are no longer valued in modern society.
- Modern society offers fewer opportunities to exercise these freedoms.
- The complexity of modern society requires a broader understanding of freedom.
- New technologies have made these traditional freedoms obsolete.

**Passage – 2**

The pursuit of environmental, social and governance strategies, as a way of advancing corporate responsibility, presents a lucrative opportunity for companies to integrate mental health as a function of labour standards and culture. ESG reporting provides a mechanism of transparency and accountability in evaluating organisations' trajectories towards this goal. However, underdeveloped metrics present an obstruction. Developing a deeper insight into the determinants of employee mental health will enable reporting bodies, organisations, and investors to better understand the relevant parameters demanding measurement.

62. According to the passage, what is the main obstacle to effectively integrating mental health into ESG reporting for companies?

- Lack of investor interest in mental health initiatives.
- Difficulty in measuring and reporting on mental health.
- Absence of a clear link between mental health and corporate responsibility.
- Companies not viewing mental health as important.

**Passage – 3**

Recent advances in the functional power of artificial intelligence (AI) have prompted an urgent warning from industry leaders and researchers concerning its “profound risks to society and humanity.” Their open letter is admirable not only for its succinct identification of said risks, which include the mass dissemination of misinformation, loss of jobs, and even the possible extinction of our species but also for its clear normative framing of the problem: “*Should* we let machines flood our information channels with propaganda and untruth? *Should* we automate away all the jobs, including the fulfilling ones? *Should* we develop nonhuman minds that might eventually outnumber, outsmart, obsolete and replace us? *Should* we risk loss of control of our civilization?

63. The main concern raised by industry leaders and researchers regarding artificial intelligence in the passage is:

- Its potential to automate tasks currently done by humans.
- Its inability to understand and respond to human emotions.
- The ethical implications of its development and use.
- The lack of transparency in how AI systems function.

64. Given that  $N = 7^{6783} \times 3$ . What is the last digit of N?

- 5
- 6
- 9
- 8

65. If  $X - Y = 5$  and  $Y < 5$ , then which of the following must be true?

- $X < 10$
- $X + Y = 12$
- $XY = 28$

Choose the correct answer using the codes given below.

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

66. An analysis of the monthly incentives received by 5 salesmen is as follows:

- The mean and median of the incentives is Rs. 9000.
- The mode of the incentives is Rs. 17,000.
- Every salesman was given some incentive. Incentives paid to each salesman were in multiple of 500.

What is the ratio between the highest and the lowest incentive received by the 5 salesmen in that month?

- 27:4
- 34:1
- 23:2
- 25:7

67. Find the number of zeros at the end of the product  $10 \times 20 \times 30 \times 40 \times 50 \times \dots \times 1000$ .

(a) 86  
 (b) 200  
 (c) 124  
 (d) 310

68. A floor of length 20 m and breadth 30 m is to be paved with equal sized square tiles. Find the minimum possible number of tiles required.

(a) 5  
 (b) 6  
 (c) 9  
 (d) 8

69. If P represents the geometric mean, Q represents the harmonic mean and R represents the arithmetic mean of two numbers, then which of the following option will best represent their relation?

(a)  $R \times P = Q^2$   
 (b)  $R \times Q = P^2$   
 (c)  $P \times Q = R^2$   
 (d)  $R / Q = P^2$

70. In a barrack, there was food for 750 soldiers for 30 days. After 12 days, 150 more soldiers joined the barrack. For how many days the remaining ration would last for all the soldiers?

(a) 12 days  
 (b) 15 days  
 (c) 16 days  
 (d) 18 days

71. Jayprakash is riding his bike on the sides of a square shaped track. He rode his bike at the speeds of 30 km/hr, 40 km/hr, 50 km/hr and 60 km/h respectively on the four sides of the track. Find the average speed of Jayprakash in one round of the track.

(a) 43.5 km/h  
 (b) 42.10 km/h  
 (c) 40.35 km/h  
 (d) 41.83 km/h

**Directions for the following 3 (three) items:**

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

**Passage – 1**

The balance between the rights of animals and their use in biomedical research is a delicate issue with huge societal implications. The debate over whether and how scientists should use animal models has been inflammatory, and the opposing viewpoints are difficult to reconcile with. Many animal-rights activists call for nothing less than the total abolition of all research involving animals. Conversely, many scientists insist that some experiments require the use of animals and want to minimize regulation, arguing that it would impede their research.

72. On the basis of above passage the following assumptions have been made:

1. In contemporary times, animal experimentation is an essential component of biomedical research.
2. A significant portion of the laboratory animals used each year are involved not in research but in testing.
3. The use of animals in biomedical research has enhanced scientific knowledge, and has accrued benefits to human health.

Which of the above assumptions is/are valid?

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

### ***Passage – 2***

Today human society stands at an important crossroad. The path that we take hereon will not only determine our well-being but also that of the generations who will inhabit our planet after us. The imbalances between our greed and necessities have led to grave ecological imbalances. We can either accept this, go ahead with things as if it is business as usual, or we can take corrective actions.

**73.** Which one of the following is the most logical, rational and crucial message conveyed by the above passage?

- (a) To restore ecological balances, we will have to drastically change our lifestyle and live on bare minimum necessities for a while.
- (b) Our greed has caused irreparable damage to the ecology.
- (c) The adverse impacts of climate change would be felt more acutely by our future generations.
- (d) We need to restore the ecological imbalances by ensuring sustainable development.

### ***Passage – 3***

How do we perceive the country's environmental discourse so far? Ever since India's existence as an independent nation or even before, the notion of a nation is often defined through aspects of nature, ecology, or a sense of place. Two sets of dominant narratives of environmental discourses stand out here. First, the nation is seen as a unitary sense of place where nature is defined as an ecological reality that is universal to the citizens. Here, both the use of nature and its restriction are justified through nationalistic pride or ecological nationalism. Second, beyond this fallacy of a unitary sense of nation or nationalism, there reside multiple ways of understanding nationalism within India, whereby there is a sense of affiliation to a place as a piece of land, with peoples and cultural identities. These forms of belongingness are entangled in varied notions about ecology.

**74.** The passage implies that a more nuanced understanding of India's environmental discourse requires considering:

- (a) The economic benefits of exploiting natural resources.
- (b) The role of the government in setting national environmental policies.
- (c) The diverse relationships between communities and their local ecologies.
- (d) The need for stricter national environmental regulations.

**75.** "In the last cricket series, Saurabh Ganguly was in great form and India won all the matches" is a true statement. Which of the following conclusions must be correct?

- (a) If Saurabh Ganguly were not in great form in the last ODI, India would not have won.
- (b) In the last T 20 Series Saurabh Ganguly was in great form.
- (c) India did win the last match because of Saurabh Ganguly.
- (d) Saurabh Ganguly may or may not have played well in all the matches.

**76.** A bottle contains water and milk in the ratio 1 : 4 and another bottle contains water and milk in the ratio 3 : 7. Their contents are mixed in the ratio 4 : 3. What is the ratio of milk and water in the new mixture?

- (a) 53 : 17
- (b) 17 : 53
- (c) 11 : 19
- (d) 19 : 11

77. Income of Virat is 15% more than that of Rohit's, which is 20% more than that of Rahul's income. By how much percent is Rahul's income less than Virat's income?

(a) 12.25%  
(b) 22.23%  
(c) 27.53%  
(d) 18.34%

78. A dice is rolled twice. What is the probability that the number that we get on the second roll of the dice is a multiple of the number that we got on the first roll of that dice?

(a)  $1/4$   
(b)  $3/4$   
(c)  $7/18$   
(d)  $11/18$

79. If  $X = (13)^{p-4} \times (11)^{q+1} \times (7)^r \times (5)^{s+4}$  is a perfect cube, where p, q, r and s are positive integers, then minimum value of  $p + q + r + s$  is:

(a) 14  
(b) 11  
(c) 8  
(d) 9

80. What is the sum of the first 56 terms in the following sequence?  
1,2,1,1,2,2,1,1,1,2,2,2,3,3,3,1,1,1,1,2,2...?

(a) 145  
(b) 161  
(c) 142  
(d) 134