Question Booklet No: EXAM DATE:

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TEST BOOKLET
GENERAL STUDIES
PAPER - II - ANSWER KEY

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 Carter Center, a leader in the global elimination and eradication of diseases, recently reported that guinea worm disease was close to eradication. From 3.5 million cases a year in 21 countries in 1986, the number had come down to 13 in five countries in 2023, a reduction of 99.99%. This would be the second disease after smallpox to be eradicated and the first one with no known medicines or vaccines. This has created increased attention to disease elimination, the first step in eradication. Ending the epidemics of malaria, tuberculosis and Neglected Tropical Diseases by 2030 is one of the Sustainable Development Goals set by the United Nations.

1. Based on the information in the passage, which of the following assumptions can be made?
   1. The Carter Center primarily focuses on treating diseases rather than eradicating them.
   2. Guinea worm disease is the only disease being targeted for eradication by The Carter Center.
   3. Disease elimination is a crucial step towards achieving eradication goals.
   4. Eradicating guinea worm disease is considered less significant compared to eradicating smallpox.
   (a) 1 and 2
   (b) 2 and 3
   (c) 3 and 4
   (d) 1 and 3

2. Which one of the following statements best summarizes the main idea of the passage?
   (a) The Carter Center's focus on disease eradication has resulted in a significant reduction in guinea worm disease cases.
   (b) Eradicating guinea worm disease has been a challenging task due to the lack of medicines and vaccines.
   (c) The United Nations' Sustainable Development Goals prioritize the eradication of guinea worm disease by 2030.
   (d) The Carter Center's efforts have led to the complete eradication of guinea worm disease in all affected countries.

Passage:2

In 2022, 22.6% of the national income went to the top 1% of Indians. Cut to 1951, their share in the income was only 11.5% and even lower in the 1980s just before India opened-up its economy at 6%. The share of the top 10% of Indians too had increased from 36.7% of national income in 1951 to 57.7% in 2022. On the other hand, the bottom 50% of Indians earned only 15% of the national income in 2022, compared with 20.6% in 1951. The middle 40% of Indians also recorded a sharp fall in their share of income from 42.8% to 27.3% in the period.

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

   1. The share of income among the top 1% of Indians has consistently increased over the decades.

   2. The bottom 50% of Indians experienced a decline in their share of national income from 1951 to 2022

   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

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

   (a) Income distribution among Indians has remained largely unchanged since 1951.

   (b) **There has been a significant increase in income disparity among different income groups in India over the years.**

   (c) India's economic growth has led to equitable income distribution among its citizens.

   (d) The bottom 50% of Indians have seen an increase in their share of national income since the 1980s.

Passage:3

Government of India recognized the benefits of multimodal transport way back in the early 1990s and came up with the Multimodal Transportation of Goods (MMTG) Act in 1993 with the objective of encouraging the growth of exports from India. Through the Act, the government aimed at developing international multimodal transport that would reduce logistics costs and thus make Indian products more competitive in the global market. The Act established licensing requirements, contractual terms through the multimodal transport document [MTD] to ensure an efficient and cost-effective door-to-door movement of goods under the responsibility of a single transport operator, known as the Multimodal Transport Operator [MTO]), and a corresponding liability regime.

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

   (a) The Multimodal Transportation of Goods (MMTG) Act was enacted solely to regulate the licensing requirements for transport operators in India.

   (b) The primary objective of the MMTG Act was to increase the transportation costs for Indian products in the global market.

   (c) **The MMTG Act aimed to streamline the logistics process by introducing the Multimodal Transport Document and establishing a liability regime under a single transport operator.**

   (d) The government's focus on multimodal transport began with the implementation of the MMTG Act in the late 1990s.

Passage:4

This century-old industry was established in Aligarh in the nineteenth century when the Governmental Postal Workshop was established; as a result, many artisans and entrepreneurs were attracted to the industry. Later on, many entrepreneurs established their firms under the broader classification as a cottage industry. Similarly, the government also helped in developing the industry by establishing the Government Metal Working School in the early 1930s. This industry witnessed a significant growth until the 1940s when it went through a very difficult time because of the global recession and the economic instability of nations involved in the Second World War.

6. Based on the above passage, consider the following assumptions:

    1. The establishment of the Government Metal Working School in the 1930s contributed significantly to the growth of the industry.

    2. The global recession and economic instability during the Second World War adversely affected the industry's growth.

    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

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

    (a) The establishment of the cottage industry in Aligarh in the nineteenth century led to a boom in the region's economy.

    (b) The Governmental Postal Workshop in Aligarh was solely responsible for the establishment of the metalworking industry.

    (c) **The growth of the industry was hampered by global economic challenges during the 1940s.**

    (d) The industry in Aligarh flourished continuously from its inception in the nineteenth century to the present day.

Passage:5

The new financial year has begun with the government finally bringing into effect a policy that will discourage solar power project developers from relying on imported panels. The Approved Models and Manufacturers of Solar Photovoltaic Modules Order, 2019, requires module makers to submit to an inspection of their manufacturing facilities by the National Institute of Solar Energy. Being on the list as an 'approved' manufacturing facility certifies a company as legitimately manufacturing solar panels within its premises and not importing modules. The major advantage is eligibility to compete for the government's tenders for its flagship solar energy programmes.

8. Which of the assumptions given below are correct based on the provided passage?
   1. The policy mentioned in the passage aims to discourage solar power project developers from relying on imported panels.
   2. The Approved Models and Manufacturers of Solar Photovoltaic Modules Order, 2019, mandates inspection of manufacturing facilities by the National Institute of Solar Energy.
   3. Being listed as an 'approved' manufacturing facility certifies a company's legitimacy in manufacturing solar panels within its premises rather than importing modules.
   4. The major advantage of being an 'approved' manufacturing facility is eligibility to compete for government tenders for solar energy programmes.

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

9. Which one of the following statements best reflects the crux of the passage about the new financial year's policy regarding solar power projects?
   (a) The policy aims to reduce solar energy production by discouraging reliance on imported panels.
   (b) The policy requires manufacturers to undergo inspection by the National Institute of Solar Energy to ensure the legitimacy of their manufacturing processes.
   (c) **The policy allows companies listed as 'approved' manufacturing facilities to compete for government tenders in solar energy programmes.**
   (d) The policy primarily focuses on promoting imported solar panels over domestically manufactured ones.

Passage:6

An international team of scientists, including from India, has discovered strong evidence indicating the presence of ozone on Jupiter's moon, Callisto, shedding light on the complex chemical processes taking place on icy celestial bodies in the Solar System. The study was published in the March 2024 issue of the journal Icarus. It outlines the researchers' investigation into the chemical evolution of 'SO2 astrochemical ice', which is ice primarily composed of sulphur dioxide (SO_2) in the presence of ultraviolet irradiation. This shed light on the chemical processes and composition of the surface of Callisto. By analysing the data of the UV absorption spectra of the irradiated ice samples, the team was able to identify a distinct signature indicating the formation of ozone.

10. Which one of the following statements best reflects the most logical and rational message conveyed by the author of the passage?
    (a) **The discovery of ozone on Callisto demonstrates the potential for complex chemical reactions on icy celestial bodies in the Solar System.**
    (b) The presence of ozone on Callisto indicates a direct correlation between ultraviolet irradiation and chemical evolution of SO_2 astrochemical ice.
    (c) The study published in Icarus provides conclusive evidence that Callisto's surface composition is primarily composed of sulphur dioxide (SO_2).
    (d) The international team of scientists, including those from India, has successfully proven that Callisto's atmosphere is conducive to sustaining life forms.

Passage:7

The India Employment Report (IER) 2024 by the Institute for Human Development and International Labour Organization poses questions on the trickle-down effect of benefits to the working class in the backdrop of a 5.4% average real economic growth, from 2015-16 to 2022-23. It also shows a divergent trend between rural and urban areas in terms of employment and income. It demonstrates a relatively higher unemployment rate in urban areas, at 4.8% in 2000 over the 1.5% in rural areas. However, average monthly earnings are higher by 76% for self-employed, 44% for regular employed and 22% for casual labour in urban areas in 2022.

11. Based on the passage, which of the following assumptions can be inferred?
   1. The trickle-down effect of economic growth has been equally beneficial to both rural and urban working classes.
   2. Urban areas consistently outperform rural areas in terms of employment rates and average monthly earnings.
   (a) Only 1
   (b) Only 2
   (c) Both 1 and 2
   (d) **Neither 1 nor 2**

12. Which one of the following statements best summarizes the central theme of the passage?
   (a) The IER 2024 highlights the substantial growth in rural employment rates compared to urban areas.
   (b) **The IER 2024 raises questions about the equitable distribution of economic benefits among different socioeconomic classes.**
   (c) The IER 2024 emphasizes the declining trend of self-employment opportunities in both rural and urban sectors.
   (d) The IER 2024 emphasizes the necessity of increasing casual labor wages in urban areas to bridge income disparities.

Passage:8

Economics emerged as a distinct science out of philosophy and the humanities in the early 20th century. Modern economists do not understand how societies function. By the century's end, free market fundamentalism had become an ideology. Leave it to the "invisible hand" of the market because it knows best, these economists say. Behind the invisible hand is the power of capital. The rights of capital, and its freedom to roam the world across national boundaries and make more profits, trump the rights of human beings moving across borders searching for safer lives. Systems' knowledge has been devalued by specialisation. Heart specialists can keep the heart alive with amazing technologies.

13. Based on the above passage, the following assumptions have been made:
   1. The power of capital behind the "invisible hand" of the market is emphasized in the passage
   2. Modern economists do not understand how societies function.
   3. Free market fundamentalism had become an ideology by the century's end.

   Which of the above assumptions is/are valid?
   (a) **1 only**
   (b) 2 and 3 only
   (c) 1 and 2 only
   (d) 1, 2 and 3

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

    (a) The passage discusses that the Economics has always been separate from philosophy and the humanities.

    (b) The passage discusses the modern economists that rely solely on the "invisible hand" of the market and prioritize capital over human rights.

    (c) The passage discusses specialization that has devalued systems' knowledge, leading to a focus on heart specialists and technology.

    (d) **The passage discusses the evolution of economics, the influence of free market ideologies, and the prioritization of capital over human rights in global systems.**

Passage:9

Astronomers are looking forward to opening a new window on the universe by posting high-resolution telescopes on the moon and in orbit around it. There are numerous proposals to do this from astronomers around the world, including one from India called PRATUSH. On the earth, optical telescopes and radio telescopes have to peer through layers of the planet's atmosphere. While it is becoming increasingly difficult for optical instruments to see through the polluted skies, radio telescopes also contend with radio and TV signals adding to the cacophony of the electromagnetic 'hiss' from the communications channels used by radar systems, aircraft, and satellites.

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

    (a) High-resolution telescopes on the moon and in orbit will greatly enhance our understanding of celestial phenomena by bypassing atmospheric interference and electromagnetic pollution.

    (b) Astronomers worldwide are competing to launch cutting-edge telescopes, exemplified by PRATUSH from India, to gain an advantage in space exploration.

    (c) Earth's atmosphere presents significant obstacles for existing telescopes due to pollution and interference, necessitating the deployment of instruments beyond Earth's orbit.

    (d) **The deployment of high-resolution telescopes on the moon and in orbit will transform astronomical observation techniques, particularly in overcoming atmospheric and electromagnetic challenges.**

Passage:10

The State of the Global Climate report that was released recently is cause for concern. The report, by the World Meteorological Organization (WMO) of the United Nations, states that 2023 was the hottest year in the recorded history of the planet. Moreover, the average temperature rise from pre-industrial levels has been 1.45 °C, with a margin of uncertainty of ±0.12 °C. The temperature rise is tantalisingly close to breaking the agreed limit of 1.5 °C by different nations. Such a rise in global temperatures, also popularly known as global warming, is defnitely alarming. The WMO report states that 2023 was not only the warmest year by a clear margin but also one where many records were breached.

16. Which of the assumptions given below is/are correct based on the information provided in the passage?
    1. The State of the Global Climate report primarily focuses on highlighting positive aspects of global climate trends.
    2. The average temperature rise from pre-industrial levels, as stated in the report, is within the agreed limit of 1.5 °C by different nations.
    (a) Only I
    (b) Only II
    (c) Both I and II
    (d) **Neither 1 nor 2**

17. Which one of the following statements best reflects the crux of the passage?
    (a) The State of the Global Climate report emphasizes that global temperatures have remained stable over the years.
    (b) **The State of the Global Climate report underscores the urgency of addressing global warming as temperatures continue to rise, nearing the agreed limit.**
    (c) The State of the Global Climate report highlights that global warming is not a significant concern due to uncertainties in temperature measurements.
    (d) The State of the Global Climate report suggests that global warming is a natural phenomenon and not influenced by human activities.

18. If an 8-digit number 1862383A is divisible by 22, find the value of A.
    (a) **6**
    (b) 4
    (c) 2
    (d) More than one of the above

19. If the 5-digit number 676xy is divisible by 3, 7 and 11, then what is the value of (3x - 5y)?
    (a) **9**
    (b) 11
    (c) 10
    (d) 7

20. How many multiples of both 3 or 4 are there from 1 to 100 in total?
    (a) 55
    (b) **50**
    (c) 58
    (d) 33

21. Consider the following statements regarding two prime numbers p and q greater than 3, and a composite number c.
    Statement 1: p × q cannot be an even number
    Statement 2: p × q × c will never have any zeroes at the end
    Statement 3: (p ×q)/c can never be an integer
    How many of the above statements are correct?
    (a) None of the statements
    (b) **Only one statements**
    (c) Two statements
    (d) All three statements

22. 'x' and 'y' are non-zero integers, and x-y is a negative number. Then which of the following is definitely true?

    (a) When x is negative, y must be also be negative
    (b) When x is positive, y must be negative
    (c) When x is negative, y must be positive
    (d) When x is positive, y must also be positive

23. The sum of a two digit number 'X' and the number formed by reversing its digits is 77. Then how many values of 'X' are possible?

    (a) 3
    (b) 4
    (c) 7
    (d) 8

24. Consider the following statements regarding four distinct single digit positive integers p, q, r and s.

    Statement 1: Minimum value of $(p+q) \times (r+s)$ is 21
    Statement 2: Maximum value of $(p+q+r) \times s$ is 189
    Which of the above statements are correct?

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

25. Consider the following statements and question given below:

    Question: What is x?
    Statement 1: x is a an integer between 25 and 30
    Statement 2: x is a prime number
    Which one of the following is correct in respect to 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) Both statement 1 and statement 2 are required to answer the question
    (d) Both Statement 1 and statement 2 are not sufficient to answer the question.

26. Consider the following statements with respect to a prime number 'p' and composite number 'c'

    Statement 1: can be an integer
    Statement 2: p × c can be an even number
    Statement 3: p – c can be a prime number
    How many of the above statements are not correct?

    (a) None of the statement
    (b) Only one statement
    (c) Two statements
    (d) All three statements

27. Kavya started typing from 1. After typing the largest prime number before 40, she gave the balance work to Kavitha. If Kavitha typed a total of 187 digits, what is the last number typed by Kavitha?

   (a) 116
   (b) 118
   (c) 120
   (d) 122

28. If the price of an article is decreased by 10% and then new price is increased by 20%, then what is the net change in the price?

   (a) 0%
   (b) 4% increase
   (c) 8% increase
   (d) 10% increase

29. When 70% of a number x is added to another number y, the sum becomes 165% of the value of y. When 60% of the number x is added to another number z, then the sum becomes 165% of the value of z. Which one of the following is correct?

   (a) z < x < y
   (b) x < y < z
   (c) y < x < z
   (d) z < y < x

30. If A = x% of y and B = y% of x, then which of the following is true?

   (a) A is smaller than B.
   (b) A is greater than B
   (c) Relationship between A and B cannot be determined.
   (d) None of these

31. Shobha's mathematics test had 75 problems i.e.10 arithmetic, 30 algebra and 35 geometry problems. Although she answered 70% of the arithmetic ,40% of the algebra, and 60% of the geometry problems correctly. she did not pass the test because she got less than 60% of the problems right. How many more questions she would have to answer correctly to earn 60% of the passing grade?

   (a) 10
   (b) 5
   (c) 25
   (d) 30

32. Mr.Jones gave 40% of the money he had to his wife. he also gave 20% of the remaining amount to his 3 sons. half of the amount now left was spent on miscellaneous items and the remaining amount of Rs.12000 was deposited in the bank. how much money did Mr.jones have initially?

   (a) 4,25,000
   (b) 1,11,111
   (c) 2,00,000
   (d) 1,00,000

33. If the numerator of a fraction be increased by 15% and its denominator be diminished by 8%, the value of the fraction is 15/16. Find the original fraction.

   (a) 9/7
   (b) 3/4
   (c) 1/2
   (d) ¼

34. In a row of persons, the position of Sahil from the left side of the row is 28th and position of Sahil from the right side of the row is 35th. Find the total students in the row?

(a) **62**

(b) 61

(c) 60

(d) 59

35. In a row of persons, the position of Sahil from the left side of the row is 28th and position of Sahil from the right side of the row is 35th. Find the total students in the row?

(a) **12**

(b) 13

(c) 14

(d) 15

36. In a row of persons, the position of Sahil from the left side of the row is 28th and position of Sahil from the right side of the row is 35th. Find the total students in the row?

(a) 16

(b) 17

(c) **18**

(d) 19

37. In a row of persons, the position of Sahil from the left side of the row is 28th and position of Sahil from the right side of the row is 35th. Find the total students in the row?

(a) Madhu

(b) Deepak

(c) Vasant

(d) **Pradeep**

38. A child is looking for his toy. He went 90 metres in the east before turning to his right. He went 20 metres before turning to his right again to look for his toy at his uncle's place 30 metres from this point. His toy was not there. From there, he went 100 metres to his north before meeting his toy in a street. How far did the son meet his toy from starting point?

(a) 10m

(b) 50m

(c) **100m**

(d) 60m

39. B is west of E. A is north-west of B. F is north-east of B. D is south-east of F, such that F is north-west of E and D is south-east of E as well. If C is south-west of E, what is the position of A with respect to E? (All positions are arranged in GRID pattern)

(a) South-east

(b) **North-west**

(c) South-west

(d) More than one of the above

40. Lokesh runs 4 km facing east, takes a left turn and runs for another 3 km. He finally takes a left turn, runs 4 km and stops. Which direction is he facing now and what is the shortest distance he has to cover to reach back to the starting point? (All turns are 90° turns only)

(a) West, 7 km

(b) North, 4 km

(c) North, 7 km

(d) **West, 3 km**

41. Shweta starts walking from her office and walks 150 m towards the south, then she turns right and walks 80 m, and then she turns left and walks 60 m. She finally turns left and walks 280 m to reach a bank. What is the shortest distance between her office and the bank?

    (a) 280 m
    (b) 290 m
    (c) 410 m
    (d) 370 m

42. Shashank walks a certain distance, say X m, towards the west, then turns left and walks 35 m, and then turns right and walks 18 m. From there, he turns left and walks 9 m, and then turns left again and walks 60 m. From there, he turns left and walks 9 m, and then turns left again and walks 12 m. He finally turns right and walks 35 m to reach a point that is exactly 10 m to the east of the starting point. What is the value of X?

    (a) 30
    (b) 36
    (c) 22
    (d) 20

43. Rahul put his timepiece on the table in such a way that at 6 P.M. hour hand points to North. In which direction the minute hand will point at 9.15 P.M. ?

    (a) South-East
    (b) South
    (c) North
    (d) West

44. P started from his house towards west. After walking a distance of 25 m. He turned to the right and walked 10 m. He then again turned to the right and walked 15 m. After this he is to turn right at 135o and to cover 30 m. In which direction should he go?

    (a) West
    (b) South
    (c) South-West
    (d) South-East

45. If A x B means A is to the south of B; A + B means A is to the north of B; A % B means A is to the east of B; A - B means A is to the west of B; then in P % Q + R - S, S is in which direction with respect to Q?

    (a) South-West
    (b) South-East
    (c) North-East
    (d) North-West

46. A shopkeeper earns a profit of 25 percent on selling a radio at 15 percent discount on the Printed price. Finds the ratio of the Printed price and the cost price of the radio.

    (a) 17 : 25
    (b) 25 : 27
    (c) 27 : 25
    (d) 25 : 17

47. A shopkeeper normally makes a profit of 20% in a certain transaction; he weights 900 g instead of 1 kg, due to an issue with the weighing machine. If he charges 10% less than what he normally charges, what is his actual profit or loss percentage?
   (a) **20%**
   (b) 28%
   (c) 25%
   (d) 30%

48. Two successive discounts of 40% and 20%, respectively, on the marked price of an article are equal to single discount of Rs 988. The marked price (in Rs) of the article is:
   (a) **1,900**
   (b) 2,200
   (c) 2,470
   (d) 2,070

49. A shopkeeper marked a price Rs.16,500 more than a cost price. If the shopkeeper allowed a discount of 8% to the customer it would fetch Rs.3630 more than if he allowed a discount of 10%. Find the cost price.
   (a) Rs. 1,45,000
   (b) Rs. 1,67,000
   (c) **Rs. 1,65,000**
   (d) Rs. 1,23,000

50. Some articles were bought at 6 articles for Rs. 5 and sold at 5 articles for Rs. 6. Gain percent is:
   (a) 30%
   (b) 33 ⅓ %
   (c) 35%
   (d) **44%**

51. A trader mixes 26 kg of rice at Rs. 20 per kg with 30 kg of rice of other variety at Rs. 36 per kg and sells the mixture at Rs. 30 per kg. His profit percent is:
   (a) No profit, no loss
   (b) **5%**
   (c) 8%
   (d) 10%

52. A shopkeeper sells a chair at a profit of 20%. If he had bought the table at 10% less cost and sold for Rs 60 more, he would have gained 40%. The cost price of the chair is:
   (a) **₹1000**
   (b) ₹1200
   (c) ₹800
   (d) ₹1500

53. A shopkeeper allows a discount of 22% on the marked price. How much above the cost price must he mark his goods as to gain 17%?
   (a) 20%
   (b) 30%
   (c) **50%**
   (d) 75%

54. A man buys oranges at Rs. 5 a dozen and an equal number at Rs. 4 dozen. He sells them at Rs 5.50 a dozen and makes a profit of Rs. 50. How many dozen oranges did he buy?
   (a) 30
   (b) 40
   (c) **50**
   (d) 25

55. If $P : Q : R = 5 : 3 : 6$, then what will be the ratio of $P/Q : Q/R : R/P$?

(a) **50 : 15 : 36**

(b) 50 : 45 : 36

(c) 75 : 15 : 36

(d) 40 : 12 : 27

56. An amount of money was distributed among A, B and C in the ratio a:b:c. Consider the following statements:

1. A gets the minimum share if a is less than (b-c)

2. C gets the minimum share if c is less than (a+b)

3. B gets maximum share if b is greater than (a+c)

How many of the above statements are correct?

(a) None

(b) **Only one**

(c) Only Two

(d) All three

57. Two numbers are in the ratio 2:5. If 6 is added to both, their ratio changes to 4:7. What is the larger number?

(a) 6

(b) 12

(c) **15**

(d) 21

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 Internet was designed to evolve in a distributed fashion. Individual machines which were connected to the Internet were given the power to decide who people should talk to for a service in which they are interested. In the entire design of the network layer, there were no gatekeepers except for very basic functionality such as allocation of Internet Protocol addresses and root servers for resolving top-level domains like .com, .org, and .net. Anyone could connect to the Internet and start providing or consuming a service. As a result, the Internet saw rapid growth in the 1990s and 2000s.

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

1. The Internet was designed to have centralized control over user interactions.

2. The Internet allowed individual machines to determine connections for services.

3. The Internet was primarily designed with gatekeepers regulating all interactions.

Which of the assumptions given above is/are correct?

(a) 1 only

(b) **2 only**

(c) 1 and 2 only

(d) 1, 2 and 3

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

    (a) **The Internet's decentralized design facilitated rapid growth and connectivity.**

    (b) The Internet's growth was stunted by excessive gatekeeping and central control.

    (c) The Internet's design in the 1990s and 2000s focused on restricting user access.

    (d) The Internet's evolution was primarily driven by a few root servers controlling all connections.

Passage:2

Historically, the label of madness has been used to discredit, subjugate, and silence women who are seen as demonstrating undesirable traits - intellectual curiosity, assertiveness, and autonomy. From the witch trials in the Middle Ages to the incarceration of women in asylums, resistance to oppression and refusal to comply with expected norms were labelled as missteps due to a deranged imagination. In contemporary patriarchal society, the social construct of womanhood continues to be carefully curated and enforced, confining women and their value within reproductive roles and docile submission to various forms of violence, routinely normalised and justified. Madness in this context then becomes not an individuated pathology but a response to the continued violence against women.

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

    (a) Women who exhibit intellectual curiosity, assertiveness, and autonomy are inherently prone to madness.

    (b) **The social construct of womanhood perpetuated by patriarchal society is a primary factor contributing to the labelling of women as mad.**

    (c) Women's resistance to oppression and deviation from societal norms are valid reasons for their classification as mentally unstable.

    (d) The historical use of the label of madness against women is justified given their perceived deviation from expected behaviours and roles.

Passage:3

The Agni-5 ballistic missile test dubbed the "Divyastra", that was conducted by the Defence Research and Development Organisation (DRDO), is strategically consequential. With a range of over 5,000 kilometres, the Agni-5 is the longest-range missile India has tested so far. But it is not simply its range but, equally, its potency which represents a watershed moment for India's nuclear deterrent. The potency of India's nuclear deterrent is enhanced because this variant is integrated with Multiple Independently Targetable Re-entry Vehicles (MIRVs). MIRV-tipped missiles are a necessity simply because they strike multiple targets simultaneously and help evade ballistic missiles defences.

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

   1. The Agni-5 ballistic missile test signifies a significant advancement in India's strategic capabilities.

   2. The integration of Multiple Independently Targetable Re-entry Vehicles (MIRVs) in the Agni-5 enhances India's nuclear deterrent.

   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

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

   (a) The Agni-5 ballistic missile test is a mere demonstration of India's technological prowess without strategic implications.

   (b) **The Agni-5 ballistic missile test marks a significant milestone in India's nuclear deterrence capabilities due to its range and MIRV integration.**

   (c) The Agni-5 ballistic missile test has raised concerns about India's aggressive stance in regional geopolitics.

   (d) The Agni-5 ballistic missile test highlights India's preference for conventional warfare over nuclear deterrence strategies.

Passage:4

The India-EFTA Trade and Economic Partnership Agreement (TEPA) is the latest in India's recent Free Trade Agreements (FTAs). As its name suggests, the thrust of the FTA is deeper economic engagement with the EFTA (European Free Trade Association) countries - Switzerland, Norway, Iceland and Liechtenstein. It heralds the westward tilt of India's FTAs, being the first with any European country and the western world. The successful conclusion of an FTA with developed countries including Switzerland and Norway is a significant positive signal to the world, showcasing India's firm commitment to trade liberalisation at a time of rising protectionism across both developed and developing countries.

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

   1. The India-EFTA Trade and Economic Partnership Agreement (TEPA) signifies India's increasing focus on trade liberalization with developed countries.

   2. The TEPA with EFTA countries demonstrates India's shift towards deeper economic engagement with the western world.

   3. The TEPA is India's first Free Trade Agreement (FTA) with any European country.

   Which of the above assumptions are valid?

   (a) 1 and 2 only

   (b) 2 and 3 only

   (c) 1 and 3 only

   (d) **1, 2, and 3**

64. Which of the following statements best summarizes the essence of the passage?

(a) The TEPA with EFTA countries represents India's focus on isolationist economic policies.

(b) **The TEPA with EFTA countries signifies India's commitment to trade liberalization, especially with developed nations, amid global protectionism.**

(c) The TEPA with EFTA countries highlights India's preference for bilateral agreements over multilateral trade agreements.

(d) The TEPA with EFTA countries indicates India's avoidance of economic partnerships with western countries.

Passage:5

Scientists recently proposed formalising an 'Anthropocene Epoch' on the geologic time scale, triggering several debates. The earth's geological history is divided into multiple epochs depending on their natural character. We are officially currently in the Holocene Epoch, which started around 11,700 years ago. But many scientists believe the Holocene Epoch has ended and the Anthropocene Epoch has started - a period of time characterised by humankind's large-scale effects on the earth, including climate change and pollution.

65. Which one of the following statements best reflects the central idea of the passage given above?

(a) The Anthropocene Epoch is a proposed geologic time period characterized by humankind's minimal impact on the earth.

(b) **The debate over formalizing the Anthropocene Epoch revolves around the significant environmental changes caused by human activities.**

(c) The Holocene Epoch marks the beginning of the earth's geological history, according to recent scientific proposals.

(d) The geological time scale categorizes epochs based on their natural character, irrespective of human influence.

66. If A:B is 2:3, C:B is 3:4 and D:C is 4:5 then what is A:B:C:D?

(a) **40:60:45:36**
(b) 24:36:48:60
(c) 40:45:60:36
(d) 24:48:60:36

67. Comprehension:

Direction: Read the following information carefully and answer the given question.

In a family, there are eight members M, N, O, P, Q, R, S, and T. There are two couples in this family. P is the husband of T. S is the sister-in-law of P. N is the Paternal Uncle of Q and R. M has only two sons. N is unmarried. O is the grandmother of R. Q is the sister of R. R is the son of T.

Which of the following statements is True?

1. O is the male member of the family.
2. T is the sister of S.
3. Q and R are siblings.

(a) Only 1
(b) Only 2
(c) Only 1 and 2
(d) **Only 2 and 3**

68. Direction: Read the following information carefully and answer the given question.

In a family, there are eight members M, N, O, P, Q, R, S, and T. There are two couples in this family. P is the husband of T. S is the sister-in-law of P. N is the Paternal Uncle of Q and R. M has only two sons. N is unmarried. O is the grandmother of R. Q is the sister of R. R is the son of T.

How many male members are there in the family?

(a) **Four**

(b) One

(c) Three

(d) Two

69. Direction: Read the following information carefully and answer the given question.

In a family, there are eight members M, N, O, P, Q, R, S, and T. There are two couples in this family. P is the husband of T. S is the sister-in-law of P. N is the Paternal Uncle of Q and R. M has only two sons. N is unmarried. O is the grandmother of R. Q is the sister of R. R is the son of T.

How is M related to T?

(a) Father

(b) Mother

(c) **Father-in-Law**

(d) Uncle

70. Four bells ring simultaneously at starting and an interval of 6 sec, 12 sec, 15 sec and 20 sec respectively. How many times they ring together in 2 hours?

(a) 120

(b) 60

(c) **121**

(d) 112

71. How many multiples of both 3 or 4 are there from 1 to 100 in total?
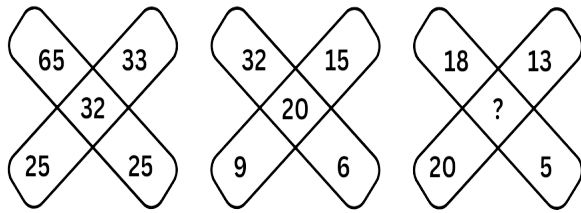
(a) 55

(b) **50**

(c) 58

(d) 33

72. A bell rings every 8 minutes. A second bell rings every 6 minutes. A third bell rings every 9 minutes. If all the three bells ring at same time at 9 o' clock in the morning, after how much minutes will they all ring together?

(a) **72**

(b) 48

(c) 144

(d) 126

73. Complete the analogy: 144 : 23 :: 169: _____

(a) 32

(b) 24

(c) **25**

(d) 26

74. Find the missing number?

- *(a)* 18
- *(b)* **20**
- *(c)* 22
- *(d)* 32

75. Find the missing number?

17	16	15
52	39	26
29	44	59
37	?	45

- *(a)* 21
- *(b)* **41**
- *(c)* 69
- *(d)* 77

76. Directions: In following question, choose the missing term out of the given alternatives Reference:

A B C D E F G H I J K L M

N O P Q R S T U V W X Y Z

Z, X,V,T,R

- *(a)* O,K
- *(b)* M,N
- *(c)* **P,N**
- *(d)* P,Q

77. Find the missing character

4C	2B	3A
28A	?	45B
7C	5A	15B

- *(a)* **10C**
- *(b)* 17C
- *(c)* 7C
- *(d)* 70C

78. If we add two irrational numbers the resulting number
- *(a)* Is always a rational number
- *(b)* Is always an irrational number
- *(c)* **May be a rational or an irrational number**
- *(d)* Always an integer

79. There is a digit at the 10th place of 6n, in which n is a natural number that is greater than 1, it can be:
- *(a)* **1, 2, 3, 4, 5**
- *(b)* 1, 3, 5, 7, 9
- *(c)* 1, 2, 6, 8, 9
- *(d)* 1, 3, 5, 8, 9

80. What is the sum of first 20 terms of the following series?

$1 \times 2 + 2 \times 3 + 3 \times 4 + 4 \times 5 + \ldots\ldots\ldots$

- *(a)* 3160
- *(b)* 2940
- *(c)* 3240
- *(d)* **3080**

SPACE FOR ROUGH WORK

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