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ESE/25/M/GEN/2025
GENERAL PAPER

200057

Question Booklet
Number

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Series :

a

Time : 2 Hours

Maximum Marks : 150

ROLL NO.

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ESE/25/M/GEN/EXAM. 2025/102-a





1. Which is the only river in Arunachal Pradesh that empties into Tibet from the north?
[A] Lohit
[B] Siang (Brahmaputra)
[C] Subansiri
[D] Kameng
2. Which Arunachal Pradesh wildlife sanctuary is in the running to become a UNESCO World Heritage Site?
[A] Mouling National Park
[B] Pakhui Wildlife Sanctuary
[C] Dihang-Dibang Biosphere Reserve
[D] Namdapha National Park
3. Which is the Mahayana Buddhism's largest monastery located in Arunachal Pradesh?
[A] Bomdila Monastery
[B] Gompa Monastery
[C] Urgelling Monastery
[D] Tawang Monastery
4. Which of the following Acts is included in reforms under Jan Vishwas 2.0?
[A] Motor Vehicles Act, 1988
[B] New Delhi Municipal Council Act, 1994
[C] Drugs and Cosmetics Act, 1940
[D] All of the above
5. What was the primary objective of Operation Sindoor?
[A] To conduct large-scale ground invasion of Pakistani territory
[B] To dismantle terrorist infrastructure via precise strikes across air, land and sea
[C] To negotiate a peace agreement with militant groups
[D] To target Pakistani civilian population centers to pressure Government
6. Which landmark mission did Shubhanshu Shukla pilot in 2025, making him the first Indian astronaut to visit the ISS?
[A] Gaganyaan 1
[B] Axiom Mission 4 (Ax-4)
[C] Chandrayaan-3
[D] SpaceX Crew-7
7. When did the Bharatiya Nyaya Sanhita (BNS) come into force and what did it replace?
[A] 1st July, 2023, replacing the Criminal Procedure Code (CrPC)
[B] 1st July, 2025, replacing the Indian Evidence Act
[C] 1st July, 2024, replacing the Indian Penal Code (IPC)
[D] 25th December, 2023, replacing the IP
8. Who presides over the joint sitting of the Parliament?
[A] The President of India
[B] The Speaker of the Lok Sabha
[C] The Vice President of India
[D] The Prime Minister

9. Who is known as the "ex-officio Chairman of the Rajya Sabha"?

- [A] The Prime Minister
- [B] The President of India
- [C] The Vice President of India
- [D] The Speaker of the Lok Sabha

10. Who was the Governor-General of India during the Revolt of 1857?

- [A] Lord Dalhousie
- [B] Lord Canning
- [C] Lord Curzon
- [D] Lord Wellesley

11. Taxila was an important center of learning during ancient India. It was located in the present-day

- [A] Uttar Pradesh
- [B] Bihar
- [C] Pakistan
- [D] Afghanistan

12. Loktak Lake, famous for its floating islands (Phumdis), is located in

- [A] Assam
- [B] Manipur
- [C] Meghalaya
- [D] Tripura

13. Which North Eastern State shares its border with three countries – Bhutan, China and Myanmar?

- [A] Assam
- [B] Arunachal Pradesh
- [C] Nagaland
- [D] Mizoram

14. The Bailadila mines in Chhattisgarh are famous for which mineral?

- [A] Bauxite
- [B] Iron ore
- [C] Copper
- [D] Manganese

15. Which State is the leading producer of mica in India?

- [A] Rajasthan
- [B] Jharkhand
- [C] Andhra Pradesh
- [D] Bihar

16. Who is the author of the famous book *Geetanjali*?

- [A] Bankim Chandra Chatterjee
- [B] Rabindranath Tagore
- [C] Sarojini Naidu
- [D] Mahadevi Verma

17. Which Indian won the first individual Olympic Gold Medal?

- [A] Leander Paes
- [B] Abhinav Bindra
- [C] Rajyavardhan Singh Rathore
- [D] Neeraj Chopra

18. The largest delta in the world is

- [A] Amazon Delta
- [B] Mekong Delta
- [C] Ganga-Brahmaputra Delta
- [D] Mississippi Delta



19. The largest producer of coffee in the world is

- [A] Brazil
- [B] India
- [C] Vietnam
- [D] Colombia

20. Which ocean is smallest in size?

- [A] Indian Ocean
- [B] Arctic Ocean
- [C] Atlantic Ocean
- [D] Pacific Ocean

21. Which Article of the Constitution deals with the Council of Ministers to aid and advise the President?

- [A] Article 72
- [B] Article 74
- [C] Article 75
- [D] Article 76

22. How many Union Territories are there in India as of 2025?

- [A] 6
- [B] 7
- [C] 8
- [D] 9

23. Which of the following Union Territories has its own legislature?

- [A] Puducherry
- [B] Chandigarh
- [C] Ladakh
- [D] Lakshadweep

24. Which country recently rejoined UNESCO in July 2023 after leaving in 2018?

- [A] USA
- [B] Russia
- [C] United Kingdom
- [D] China

25. Which international agreement aims to limit global warming to below 2 °C compared to pre-industrial levels?

- [A] Kyoto Protocol
- [B] Montreal Protocol
- [C] Paris Agreement
- [D] Doha Amendment

26. The term 'carbon footprint' refers to

- [A] total amount of solid waste generated
- [B] total greenhouse gases emitted directly or indirectly by activities
- [C] area of forest lost due to deforestation
- [D] total amount of water used by industries

27. Who was the ruler of the kingdom between the rivers Jhelum and Chenab?

- [A] Alexander the Great
- [B] Darius III
- [C] King Porus
- [D] Chandragupta Maurya

28. The Harappan seals were generally made up of

- [A] bronze
- [B] terracotta
- [C] steatite
- [D] iron

29. Which of the following is **not** included in GDP?

- [A] Final goods and services
- [B] Intermediate goods
- [C] Investment goods
- [D] Government expenditure

30. Which of the following is an example of a direct tax?

- [A] GST
- [B] Excise duty
- [C] Customs duty
- [D] Income tax

31. Chennai's aspirations to grow into a global economic hub appear considerably ____ as it struggles to find water.

- [A] weakened
- [B] toughened
- [C] strengthened
- [D] succeeded

32. It would provide better ride quality alongside ensuring greater income to farmers and ____ a positive impact on foreign exchange reserves.

- [A] engender
- [B] ameliorate
- [C] confer
- [D] substantiate

33. The chauffeur informed me that he could not resume his duties from 1st July owing to his prolonged state of
- [A] indisposition
 - [B] infirmity
 - [C] malaise
 - [D] debility
34. Many proponents of the new course considered the omission of English literature to be ____, while the more conservative educators considered such a removal ____.
- [A] repugnant, premature
 - [B] innocuous, deplorable
 - [C] reprehensible, benevolent
 - [D] malicious, disgraceful
35. Once accepted as an incontrovertible truth, the theory that nine planets revolve around our sun is now regarded by astronomers as
- [A] enacted
 - [B] irrefutable
 - [C] universal
 - [D] dubious
36. Although the mainstream of most societies reviles the ____, nearly every culture reserves at least some small place for those who question its treasured norms and mores.
- [A] charlatan
 - [B] surrogate
 - [C] iconoclast
 - [D] pragmatist
37. Identify the part of the sentence that contains the grammatical error :
- Neither the surge in global oil prices nor the disruptions in supply chains, justify the sudden depreciation of the currency, which policymakers' claims is temporary.
- [A] Neither the surge in global oil prices
 - [B] Nor the disruptions in supply chains
 - [C] Justify the sudden depreciation of the currency
 - [D] Which policymakers' claims is temporary
38. He tried to resolve the issue, but eventually he had to ____ with the hardliners in the party.
- [A] fall back
 - [B] fall out
 - [C] fall in
 - [D] fall in line
39. Change the narration (Direct → Indirect) :
- The witness said in the court, "Had I been more vigilant, I could have prevented the accident, but alas! it was not to be."
- [A] The witness told the court that if he had been more vigilant, he could have prevented the accident, but sorrowfully added that it had not been so.
 - [B] The witness stated in the court that had he been more vigilant, he might have prevented the accident, but lamented that it was not to be.
 - [C] The witness said in the court that if he was more vigilant, he could prevent the accident, but expressed grief that it had not been so.
 - [D] The witness remarked in the court that had he been more vigilant, he could have prevented the accident, but exclaimed in sorrow that it was not to be.

Read the below passage carefully and answer the questions (40–44) :

Pleasure and pain are inseparable facets of human existence. While the experience of our well-being is rather vague and intangible, the experience of pain is real, and affects our body, mind and spirit, altering our lives in more ways than one. Pain is an unpleasant sensory and emotional experience caused by tissue damage that results from physical trauma, burns, illness, injury or surgery. Despite the agony caused by pain, it is essential for our survival. If you don't feel pain, you could cause great harm to your body by inadvertently touching a hot iron or jamming your finger in the drawer and not even know it. Or you could rupture the appendix and be unaware of what was going on inside your body. Pain rings an alarm bell, alerting you to pay immediate attention and take quick action. Have you ever wondered why a severely wounded soldier continues to battle on so defiantly or an athlete injured during a race goes on to win it? It happens so because the brain does not react immediately to the pain signals, the sufferer just ignores them because there are more important tasks to attend to. The pain registers only after the task or event is over. The perception of pain has been studied extensively by psychologists who suggest that there is a "gating system" in the central nervous system that opens and closes to let

pain pass through to the brain or block it. Psychological factors such as attention to pain, emotional state of a person, anticipation of pain and the way that a person interprets a situation can both open and close the "gates". This is why when you are depressed or anxious, your pain seems worse and intolerable—because your feelings can open the pain gate.

40. The statement "Pleasure and pain are the inseparable facets of human existence", may be replaced with



- [A] all human beings experience pleasure and pain together
- [B] both pleasure and pain are two sides of the same coin
- [C] pleasure and pain may be a part of an individual's life
- [D] human beings experience both pleasure and pain in their lives

41. Pain is important for our survival as it

- [A] makes other people attend to us
- [B] makes us scream if we suffer an injury
- [C] informs us if we have an internal injury
- [D] alerts us to take action promptly

42. Sometimes people carry on despite suffering an injury as

- [A] they cannot notice the pain
- [B] being involved in a crucial task, they ignore the pain signals
- [C] they feel pleasure more acutely than the pain signals
- [D] pain, being an unpleasant feeling, is ignored by them

43. A person who is depressed or anxious may feel pain more acutely as unhappiness

- [A] blocks the pain gate
- [B] diverts our mind away from pain
- [C] makes our feelings intolerable
- [D] makes pain seem worse

44. The 'gating system' in the passage refers to

- [A] a device that controls the sensation of pain
- [B] psychological factors which contribute to pain
- [C] a person's interpretation of a situation
- [D] feelings of anxiety or depression

The following questions have the second sentence missing. Choose the appropriate sentence from the given options to complete it (45 & 46).

45. (i) The local market is a place for social interaction for people of that area.

(ii) _____

(iii) Without these markets, life could be dull and boring.

[A] They are noisy, crowded and sometimes full of litter.

[B] Vendors occupy even the pavements and corridors.



[C] They offer an opportunity to exchange a greeting with a friend or a neighbour.

[D] These markets have a limited variety and range of items.

46. (i) Parachuting from an airplane for the first time feels like falling out of a tree.

(ii) _____

(iii) The main difference is that the jumper at least is prepared for the sensation and knows what to do.

[A] It is an activity involving a preplanned drop from a height using an aerial platform.

[B] It is becoming a popular activity amongst adventure enthusiasts.

[C] One type of parachuting is skydiving parachute.

[D] You feel the same rush of wind, the same flip of stomach, the same sudden fear.

In the following passage, there are some numbered blanks (47-54). Choose the correct alternatives from the following :

Udaipur's romantic landscape and its beautiful monuments appeal to travellers from all over the world. With its (47) waters, gently gliding (48), and graceful havelis, Udaipur (49) a delicate water-colour painting. It originally (50) on the banks of the lovely lake Pichola, (51) continues to dominate the south (52) the City Palace (53) the Fort that rises from its (54) in breathtaking splendour.

47. [A] turbulent

[B] placid

[C] aquatic

[D] cascading

48. [A] boats

[B] flowers

[C] flora

[D] coral

49. [A] breathes like

[B] perceives like

[C] treats like

[D] looks like

50. [A] emerged

[B] appeared

[C] developed



[D] built

51. [A] which

[B] where

[C] while

[D] who

52. [A] off

[B] in

[C] of

[D] at

53. [A] as

[B] where

[C] near

[D] and

54. [A] fringe

[B] edge

[C] rim

[D] border

Read the below passage carefully and answer the questions (55–57) :

Aman : Our State is considering raising the age at which a person can get a driver's license to eighteen. This is unfair because the age has been sixteen for many years and sixteen-year-olds today are no less responsible than their parents and grandparents were at sixteen. Many young people today who are fourteen and fifteen years old are preparing to receive their licenses by driving with a learner's permit and a licensed driver, usually one of their parents. It would not be fair to suddenly say they have to wait two more years.

Dev : It is true that people have been allowed to receive a driver's license at sixteen for generations. However, in recent years, the increase in traffic means drivers face more dangers than ever and must be ready to respond to a variety of situations. The fact that schools can no longer afford to teach driver's education results in too many young drivers who are not prepared to face the traffic conditions of today.

55. What is the point of issue between Aman and Dev?

- [A] Whether sixteen-year-olds should be required to take driver's education before being issued a license
- [B] Whether schools ought to provide driver's education to fourteen- and fifteen-year-old students
- [C] Whether the standards for issuing driver's licenses should become more stringent
- [D] Whether sixteen-year-olds are prepared to drive in today's traffic conditions

56. On what does Aman rely in making his argument?

- [A] Emotion
- [B] Fairness
- [C] Anecdotes
- [D] Actualities

57. On what does Dev rely in making his argument?

- [A] Emotion
- [B] Fairness
- [C] Anecdotes
- [D] Actualities



Select the meaning of the given phrases/ idioms (58–60) :

58. To see eye to eye

- [A] Stare at someone
- [B] Examine someone's eyes
- [C] Have the same opinion
- [D] Be cross-eyed

59. I wonder what's wrong with them; they are **out to lunch** these days.

- [A] Absent from work
- [B] Behaving in a strange way
- [C] Not found usually
- [D] Always quarrelling

60. She **got hot under the collar** when she was teased by her friends.

- [A] Felt miserable
- [B] Felt unhappy
- [C] Got into a fight
- [D] Got angry

61. Out of their annual net income, a couple spent 22 percent for food, 12 percent for entertainment, 18 percent for housing, 10 percent for car expenses, 20 percent for clothing and saved the rest. What is the ratio of the amount saved to the amount spent for entertainment?

- [A] 5 : 4
- [B] 3 : 2
- [C] 4 : 3
- [D] 7 : 5

62. In an election of 3 candidates P, Q and R, P gets 40% more votes than Q. P also beats R by 24000 votes. If it is known that Q gets 6 percentage points more votes than R, find the number of voters on the voting list (given 85% of the voters on the voting list voted and no votes were invalid).

- [A] 140000
- [B] 206700
- [C] 152900
- [D] 155000

63. Three cars leave Delhi for Agra after equal time intervals. They reach Agra simultaneously and then leave for Gwalior, which is 120 km from Agra. The first car arrives there an hour after the second car and the third car, having reached Gwalior, immediately reverses the direction and 40 km from Gwalior meets the first car. Find the speed of the second car.

- [A] 30 km/h
- [B] 40 km/h
- [C] 60 km/h
- [D] 24 km/h

64. If a circle is provided with a measure of 19° on centre, is it possible to divide the circle into 360 equal parts?

- [A] Never
- [B] Possible when one more measure of 20° is given
- [C] Always
- [D] Possible if one more measure of 21° is given

65. A circular road is constructed outside a square field. The perimeter of the square field is 200 ft. If the width of the road is $7\sqrt{2}$ ft and cost of construction is ₹100 per sq.ft, find the lowest possible cost to construct 30% of the total road.

- [A] ₹70,400
- [B] ₹1,25,400
- [C] ₹1,40,800
- [D] ₹75,240

66. If x satisfies the inequality $|x-1| + |x-2| + |x-3| \geq 6$, then

- [A] $0 \leq x \leq 4$
- [B] $x \leq 0$ or $x \geq 4$
- [C] $x \leq -2$ or $x \geq 3$
- [D] $x \geq 3$

67. If $\frac{\log x}{b-c} = \frac{\log y}{c-a} = \frac{\log z}{a-b}$, then

- [A] $xyz = 1$
- [B] $x^a y^b z^c = 1$
- [C] $x^{b+c} y^{c+a} z^{a+b} = 1$
- [D] All the options are correct

68. The minimum possible value of the sum of the squares of the roots of the equation $x^2 + (a+3)x - (a+5) = 0$ is

[A] 1
[B] 2
[C] 3
[D] 4

69. Study the information and answer the question.

Ankus, Bunty, Chitra and Divas - four executives are to be sent to four countries - Afghanistan, Pakistan, Japan and China to head the company's operations there, not necessarily in that order. Four Assistants-Dhruve, Chinmay, Bobby and Anand are also to be sent, one to each country. Following facts are known :

- (i) Ankus does not like Bobby and Dhruve.
- (ii) Dhruve and Anand are not to be considered for Pakistan.
- (iii) Bobby and Chinmay are not to be considered for Afghanistan.
- (iv) Bunty would not go to Pakistan or Japan.
- (v) Divas loves to work with Chinmay.
- (vi) China operations would not be headed by someone whose name ends in 's'.
- (vii) Anand and Chinmay would not go to China.
- (viii) Bunty has excelled in working with Dhruve earlier and hence would like him as his assistant.
- (ix) Divas has built up good contacts in Japan and is considered a specialist for that country. (Sure posting is expected.)

Which of the following postings is possible?

[A] Afghanistan — Divas — Chinmay
[B] Pakistan — Ankus — Chinmay
[C] China — Bunty — Bobby
[D] Pakistan — Chitra — Bobby

70. An exam consists of four sections. Each section has a maximum of 45 marks. Find the number of ways in which a student can qualify in the exam if the qualifying marks is 90.

[A] 36546
[B] 6296
[C] 64906
[D] None of the above

71. The business consulting division of XYZ has overseas operations in 3 locations : Delhi, Mumbai and Bangalore. The Company has 22 analysts covering Delhi, 28 covering Mumbai and 24 covering Bangalore. 6 analysts cover Delhi and Mumbai but not Bangalore, 4 analysts cover Delhi and Bangalore but not Mumbai and 8 analysts cover Mumbai and Bangalore but not Delhi. If XYZ has a total of 42 business analysts covering at least one of the three locations : Delhi, Mumbai and Bangalore, then the number of analysts covering Mumbai alone is

[A] 14
[B] 28
[C] 5
[D] 7

72. Seema, Arpita, Garima, Riya and Teena are sitting in a row facing north. Garima and Arpita are seated together. Teena occupies the left end of the row. Additionally, Garima is seated just to the right of Seema and is positioned to the right of only two people. Based on this arrangement, who is sitting second to the right of Garima?

[A] Riya
[B] Teena
[C] Arpita
[D] Seema

73. Select the **correct** sequence of mathematical signs that can sequentially replace the "@" signs and balance the given equation.

$$32 @ 10 @ 155 @ 475 @ 19 @ 190$$

[A] $\times, -, +, \div, =$

[B] $\times, \div, -, +, =$

[C] $\div, +, \times, =, +$

[D] $+, -, =, \times, \div$

74. Find the total number of zeros in $4!^{5!} \times 5!^{6!} \times 6!^{7!} \times 7!^{8!} \times 8!^{9!} \times 9!^{10!} \times 10!^{11!}$

[A] $6! + 7! + 8! + 9! + 10! + 11!$

[B] $6! + 7! + 8! + 9! + 10! + 2 \times 11!$

[C] $6! + 7! + 8! + 9! + 10!$

[D] $6! + 7! + 8! + 9! + 10! + 22!$

75. Pointing towards a man in a photo, Prisha said, "He is the father of my son's sister's father". How is Prisha related to that man?

[A] Daughter

[B] Mother-in-law

[C] Daughter-in-law

[D] Sister

76. In a certain code, GIVEN is written as MDVJH. How would SHARK be written in that code?

[A] JSAIT

[B] YCAWE

[C] TIAQJ

[D] JQIAT

77. Ajay intended to order 4 pairs of black socks and some pairs of blue socks. The price of black socks per pair was twice that of blue. However, the order was incorrectly filled in such a manner that the number of pairs of the two colours got interchanged. This increased the bill by 50%. Find the number of pairs of blue socks in the original intended order.

[A] 15

[B] 1

[C] 12

[D] 16

78. Three different faces of a cube are coloured in three different colours—black, green and blue. This cube is now cut into 216 smaller but identical cubes. N is the number of cubes that are not coloured on any of their faces. Which of the following best estimates the value of N ?

[A] $65 < N \leq 110$

[B] $120 < N < 145$

[C] $60 < N < 100$

[D] $10 < N < 35$

79. A sum of money at simple interest amounts to ₹215 in 2 years and to ₹255 in 3 years. What must have been the principal sum?

[A] ₹135

[B] ₹125

[C] ₹100

[D] ₹115

80. Consider the following sequence that follows some logic :

a_cdb_dac_abd_be

The letters that should come in the gaps are

[A] bebe

[B] bbcc

[C] beba

[D] beda

81. Which of the following inequalities is/are equivalent to the given inequality?

$$-4 < 2x \leq 2$$

[A] $x > -2$ and $x \leq 1$

[B] $x < -2$ or $x \geq 1$

[C] $x \geq -2$ and $x < 1$

[D] $x \leq -2$ or $x > 1$

82. Garvi scored 20% marks in an examination and failed by 120 marks. Prisha scored 40% marks and scored 60 marks more than passing marks. Find the passing marks in the examination.

[A] 900

[B] 300

[C] 200

[D] 180

83. Choose the group which is different from the others.

[A] 13, 05, 35, 11

[B] 02, 09, 17

[C] 34, 29, 41, 07, 14

[D] 76, 24, 16, 64, 04, 32

84. If p , q , r and s are distinct single-digit positive numbers, then what is the greatest value of $(p + q)(r + s)$?

[A] 230

[B] 225

[C] 224

[D] 221

85. Each digit of a 9-digit number is 1. It is multiplied by itself. What is the sum of the digits of the resulting number?

- [A] 64
- [B] 80
- [C] 81
- [D] 100

86. What is the sum of all digits which appear in all the integers from 10 to 100?

- [A] 855
- [B] 856
- [C] 910
- [D] 911

87. If ABC and DEF are both 3-digit numbers such that A, B, C, D, E and F are distinct non-zero digits such that $ABC + DEF = 1111$, then what is the value of $A + B + C + D + E + F$?

- [A] 28
- [B] 29
- [C] 30
- [D] 31

88. Anmol wants to distribute some pencils among seven children Aarti, Babita, Chitra, Darshan, Eisha, Fatima and Geeta. Suppose Aarti gets twice the number of pens received by Babita, three times that of Chitra, four times that of Darshan, five times that of Eisha, six times that of Fatima and seven times that of Geeta. What is the minimum number of pens Anmol should buy so that the number of pens each one gets is an even number?

- [A] 1089
- [B] 2478
- [C] 2178
- [D] 1638

89. Consider the following statements in respect of a rectangular sheet of length 24 cm and breadth 12 cm :

- (i) It is possible to cut the sheet exactly into 9 square sheets.
- (ii) It is possible to cut the sheet into 12 triangular sheets of equal area.
- (iii) It is possible to cut the sheet into 8 rectangular sheets of equal area such that each small rectangle is not a square.

Which of the above statements are **correct**?

- [A] (i) and (ii) only
- [B] (ii) and (iii) only
- [C] (i) and (iii) only
- [D] (i), (ii) and (iii)



90. Three sealed boxes A, B and C each has a statement printed on them. Exactly one statement is **true**.

Statement-I. Box A : "The prize is not in A."

Statement-II. Box B : "The prize is in A."

Statement-III. Box C : "The prize is not in B."

Which box contains the prize?

- [A] A
- [B] B
- [C] C
- [D] Cannot be determined



91. Subtracting 3 from a number and then multiplying this result by 4 is equivalent to multiplying the original number by 4 and then subtracting

- [A] 5
- [B] 3
- [C] 8
- [D] 12

92. Consider the following statements :

- (i) A is the brother of B.
- (ii) B is the brother of C.
- (iii) C is the brother of D.
- (iv) D is the sister of E.

Which of the following statements is **not** necessarily **true**?

- [A] D is the sister of C
- [B] B and C are brothers
- [C] A, B, C are males and D is a female
- [D] D and E are sisters

93. The following sequence is generated by dividing 55 by natural numbers :

0, 1, 1, 3, 0, X, 6, 7, ... 0

What is X?

- [A] 3
- [B] 2
- [C] 1
- [D] 0

94. Which of the following **cannot** be the ratio of HCF to LCM of any two given natural numbers?

- [A] 1 : 15
- [B] 1 : 21
- [C] 1 : 35
- [D] 3 : 35

95. In a school of 600 students, girls are 40% more than boys. The average weight of girls is 50 kg and average weight of all students and boys is same. The average weight of all students is

- [A] 40 kg
- [B] 80 kg
- [C] 60 kg
- [D] 50 kg



96. Consider the following question and the statements :

Three friends P, Q and R are wearing hats, either black or white. Each person can see the hats of the other two persons. What is the colour of P's hat?

Statement-I : P says that he can see one black hat and one white hat.

Statement-II : Q says that he can see one white hat and one black hat.

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

- [A] The question can be answered with the help of first statement alone
- [B] The question can be answered with the help of any one statement independently
- [C] The question can be answered with the help of both statements together
- [D] The question cannot be answered even with the help of both statements together
97. Three Statements followed by two Conclusions are given below. You have to take the Statements to be true even if they seem to be at variance from the commonly known facts. Read all the Conclusions and then decide which of the given Conclusions logically follows/follow from the Statements, disregarding the commonly known facts.
- Statement-I** : All pens are pencils.
- Statement-II** : All pencils are erasers.
- Statement-III** : All erasers are sharpeners.
- Conclusion-I** : All pens are sharpeners.
- Conclusion-II** : All sharpeners are pencils.
- Which of the above Conclusions logically follows/follow from the given Statements?
- [A] Only **Conclusion-I**
- [B] Only **Conclusion-II**
- [C] Neither **Conclusion-I** nor **Conclusion-II**
- [D] Both **Conclusion-I** and **Conclusion-II**

98. For any choices of values of X, Y and Z, the 6-digit number of the form XYZXYZ is divisible by

- [A] 7 and 11 only
- [B] 11 and 13 only
- [C] 7 and 13 only
- [D] 7, 11 and 13

99. If $a^2 + b^2 = 117$ and $ab = 54$, then find the value of

$$\frac{(a-b)^3}{(a+b)^3}$$

- [A] $\frac{1}{64}$
- [B] $\frac{1}{27}$
- [C] $\frac{1}{125}$
- [D] $\frac{1}{216}$

100. Identify the missing value :

$$2^{3.6} \times 4^{3.6} \times 4^{3.6} \times (32)^{2.3} = (32)^?$$

- [A] 13.1
- [B] 7.7
- [C] 9.5
- [D] 5.9

SPACE FOR ROUGH WORK

