SAMPLE Question Paper 1

Maximum Marks : 300   **Time : 60 Minutes**

1. Name the Sikh Guru who developed the Gurmukhi script for writing the Punjabi language?
- (1) Guru Hargobind
- (2) Guru Tegh Bahadur
- (3) Guru Angad
- (4) Guru Ram Das

2. Fertile riverine alluvial soil is best suited for producing _____.
- (1) Rice
- (2) Tea
- (3) Cotton
- (4) Corn

3. Andaman and Nicobar Islands is a group of _____ islands/islets?
- (1) 275
- (2) 450
- (3) 780
- (4) 572

4. 49th Parallel is the boundary line between which two countries?
- (1) USA and Canada
- (2) North and South Vietnam
- (3) Germany and France
- (4) Brazil and Chile

5. In which part of the Indian Constitution are centre-state relations mentioned?
- (1) Part IV (Article 227 to 234)
- (2) Part XI (Article 245 to 255)
- (3) Part X (Article 234 to 240)
- (4) Part XII (Article 265 to 277)

6. Manipur, Meghalaya and Tripura became states under _____.
- (1) North Eastern Retention (Reconstruction) Act, 1971
- (2) North Eastern Republic of India Act, 1972
- (3) North Eastern Region Nw State Act, 1972
- (4) North-Eastern Areas (Reorganisation) Act, 1971

7. The amount of light entering into eye can be controlled and regulated by _____.
- (1) Iris
- (2) Cornea
- (3) Pupil
- (4) Retina

8. Tipu Sultan and British East India Company signed the Treaty of Mangalore in the year _____ .
- (1) 1792
- (2) 1784
- (3) 1764
- (4) 1799

9. Who among the following gave the 'Gandhian Plan' in 1944?
- (1) D. D. Dhar
- (2) S. N. Agarwal
- (3) M. N. Roy
- (4) J. P. Narayan

10. 'Inclusive Growth' was the objective of which Five Year Plan?
- (1) Tenth
- (2) Eleventh
- (3) Twelfth
- (4) Ninth

11. Where is headquarters of European Union located?
- (1) London
- (2) Paris
- (3) Brussels
- (4) Bonn

12. The Aligarh Movement was started by _____ .
- (1) Dr. Maghroor Ahmad Ajazi
- (2) Muhammad Ali Jinnah
- (3) Maulana Manzoor Ahsan
- (4) Syed Ahmed Khan

13. Which of the following is not a computer language?

I. C++

II. Java

III. Linux

(1) Only I

(2) Only III

(3) II and III

(4) I and II

14. Which one among the following is a main system board of a computer?

(1) CPU

(2) Keyboard

(3) Microchip

(4) Mother board

15. Amartya Sen was awarded the Nobel Prize for his contribution to

(1) Monetary Economics

(2) Welfare Economics

(3) Econometrics

(4) Development Economics

16. Surendranath Banerjee and Ananda Mohan Bose founded _____ in Bengal in 1876.

(1) Bengal Association

(2) Indian Association

(3) Tathagat Association

(4) Oriental Association

17. Blood is a:

(1) Connective tissue

(2) Epithelial tissue

(3) Muscular tissue

(4) Reproductive tissue

18. Beak is formed by

(1) Cheeks

(2) Jaws

(3) Teeth

(4) None

19. In which calendar month of every year, each one of the first four dates (i.e., from 1st to 4th) is observed as a World/International Day for a specific purpose?

(1) June

(2) July

(3) September

(4) October

20. A geostationary satellite revolves round the earth from

(1) East to West

(2) West to East

(3) North to South

(4) South to North

21. Which of the following is the study of soil?

(1) Mineralogy

(2) Pedology

(3) Glaciology

(4) Cosmology

22. Which one of the following is NOT a natural fiber?

(1) Terylene

(2) Jute

(3) Flax

(4) Wool

23. Which of the following is good insulator?

(1) Mercury

(2) Cadmium

(3) Germanium

(4) Glass

24. The term 'Pitcher' is associated with:

(1) Wrestling

(2) Boxing

(3) Baseball

(4) Basketball

25. The Biraja Temple, the Rajarani Temple and the Samaleswari Temple are all located in _____

(1) Odisha

(2) Assam

(3) Tamil Nadu

(4) Kerala

26. If the 8-digit number $789x531y$ is divisible by 72. Then the value of $(5x - 3y)$ is:

(1) 0

(2) −1

(3) 2

(4) 1

27. A man wills 40% of his wealth to his wife and rest to his children. What percent of the wealth willed to the wife do the children get?

(1) 150

(2) 66.6

(3) 50

(4) 20

28. The arithmetic mean of the following numbers

1, 2, 2, 3, 3, 3, 4, 4, 4, 4, 5, 5, 5, 5, 5, 6, 6, 6, 6, 6, 6 and 7, 7, 7, 7, 7, 7, 7, is

(1) 4

(2) 5

(3) 14

(4) 20

29. A dealer sells a machine having marked price as Rs. 3840 at a discount of 20%. What is the selling price (in Rs.) of the machine?

(1) 3072

(2) 3500

(3) 4608

(4) 3240

30. Two pipes of length 1.5 m and 1.2 m are to be cut into equal pieces without leaving any extra length of pipes. The greatest length of the pipe pieces of same size which can be cut from these two lengths will be

(1) 0.13 metre

(2) 0.4 metre

(3) 0.3 metre

(4) 0.41 metre

31. If the simple interest on Re. 1 for 1 month is 1 paisa, then the rate per cent per annum will be

(1) 10%

(2) 8%

(3) 12%

(4) 6%

32. Two numbers whose sum is 84 can not be in the ratio

(1) 5 : 7

(2) 13 : 8

(3) 1 : 3

(4) 3 : 2

33. Profit obtained on selling an article for ₹ 310 is equal to the loss incurred on selling that article for ₹ 230. What will be the loss percentage when selling price is ₹ 180?

(1) $16\dfrac{1}{3}$ (2) $16\dfrac{2}{3}$

(3) $33\dfrac{1}{3}$ (4) $33\dfrac{2}{3}$

34. The cost price of a chair is 25% less than the cost price of a table. If a man sells 5 chairs at the cost price of 7 tables, what is his profit per cent?

(1) 33.33   (2) 45

(3) 86.66   (4) 96

35. A boat moves downstream at the rate of 8 km per hour and upstream at 4 km per hour. The speed of the boat in still waters is:

(1) 4.5 km per hour   (2) 5 km per hour

(3) 6 km per hour   (4) 6.4 km per hour

36. If $(1101)^2 = 1212201$, find the value of $\sqrt{121.2201}$.

(1) 110.1   (2) 11.01

(3) 1.101   (4) 11.001

37. Three men A, B and C working together can do a job in 6 hours less time than A alone, in 1 hour less time than B alone and in one half the time needed by C when working along. Then A and B together can do the job in

(1) $\dfrac{2}{3}$ (2) $\dfrac{3}{4}$

(3) $\dfrac{3}{2}$ (4) $\dfrac{4}{3}$

38. A takes three times as long as B and C together to do a job. B takes four times as long as A and C together to do the work. If all the three, working together can complete the job in 24 days, then the number of days. A alone will take to finish the job is

(1) 100   (2) 96

(3) 95   (4) 90

39. If p, q, r are in Geometric Progression, then which is true among the following?

(1) $q = \dfrac{p+r}{2}$ (2) $p^2 = qr$

(3) $q = \sqrt{pr}$ (4) $\dfrac{p}{r} = \dfrac{r}{q}$

40. ABC is an isosceles triangle where AB = AC which is circumscribed about a circle. If P is the point where the circle touches the side BC, then which of the following is true?

(1) BP = PC   (2) BP > PC

(3) BP < PC   (4) BP = $\dfrac{1}{2}$ PC

41. In an isosceles triangle ABC, AB = AC, XY ∥ BC. If ∠A = 30°, then ∠BXY = ?

(1) 75°   (2) 30°

(3) 150°   (4) 105°

42. Between 10 pm and 6 am, a fitness band records the following data. Refer the following data table and answer the question.

Deep sleep	15
Dreaming	15
Light sleep	5
Extremely light sleep	30
Awake	35

How long was the user in Deep Sleep or was Awake?

(1) 3.5 hours   (2) 2.5 hours

(3) 4.5 hours   (4) 4 hours

43. The milk and water in two vessels A and B are in the ratio 4 : 3 and 2 : 3 respectively. In what ratio, the liquids in both the vessels be mixed to obtain a new mixture in vessel C containing half milk and half water?

(1) 7 : 5   (2) 5 : 2

(3) 3 : 11   (4) 1 : 2

44. If a, b are rational numbers and $(a - 1)\sqrt{2} + 3 = b\sqrt{2} + a$, the value of $(a + b)$ is

(1) –5   (2) 3

(3) –3   (4) 5

45. If $x = 3 - 2\sqrt{2}$, then $\sqrt{x} + \dfrac{1}{\sqrt{x}}$ is equal to

(1) 0   (2) 1

(3) 2   (4) $2\sqrt{2}$

46. The radius of the incircle of an equilateral △ABC of side $2\sqrt{3}$ units is x cm. The value of x is:

(1) $\dfrac{1}{3}$ (2) $\dfrac{1}{2}$

(3) 1   (4) $\sqrt{3}$

47. If diagonals of a rhombus are 16 cm and 30 cm. What is the perimeter (in cm) of the rhombus?

(1) 32   (2) 64

(3) 34   (4) 68

48. Two trains leave Varanasi for Lucknow at 11:00 AM and at 11:30 AM respectively and travel at speeds of 110 km/h and 140 km/h, respectively. How many kilometres from Varanasi will both trains meet?

(1) $256\dfrac{2}{3}$ km   (2) $255\dfrac{1}{3}$ km

(3) $246\dfrac{1}{3}$ km   (4) $238\dfrac{2}{3}$ km

49. A person goes to his office by scooter at the speed of 50 km/hr and reaches 10 minutes earlier. If he goes at the speed of 40 km/hr, then he reaches 20 minutes late. What will be the speed (in km/hr) of the scooter to reach on time?

(1) $47\frac{4}{13}$ **(2)** $46\frac{2}{13}$

(3) $48\frac{2}{13}$ **(4)** $47\frac{2}{13}$

50. In how many years will a sum of ₹ 800 at 10% per annum compounded semi-annually become ₹ 926.10?

(1) $2\frac{1}{2}$ years   **(2)** 3 years

(3) 2 years   **(4)** $1\frac{1}{2}$ years

51. Select the option in which the words share the same relationship as that shared by the given pair of words.

Dentist : Doctor

(1) Biology : Astrology
(2) Chemistry : Science
(3) Algebra : Geometry
(4) Line : Circle

52. In a code language, if 'I like chocolates' is written as '958', 'we bought chocolates' is written as '153' and 'we like them' is written as '816', then how would 'I bought them' be written in this language?

(1) 859   **(2)** 251
(3) 936   **(4)** 951

53. In a class of 42 students, Swati's rank is 19th from the bottom. Purshottam is 6 ranks below Swati. What is Purshottam's rank from the top?

(1) 30th   **(2)** 32nd
(3) 33rd   **(4)** 34th

54. If the minute hand of a clock points towards the South at 12 : 00 a.m., then in which direction will the minute hand point at 3 : 00 a.m. in the same clock?

(1) North   **(2)** South
(3) West   **(4)** East

55. Select the option in which the number set shares the same relationship as that shared by the given number set.

(17, 24, 45)

(1) (19, 26, 34)   **(2)** (18, 23, 46)
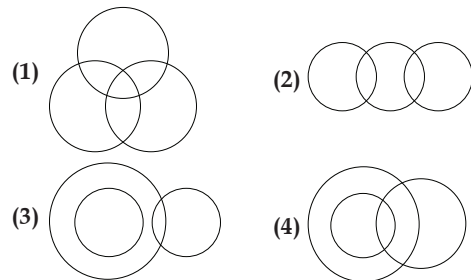**(3)** (15, 20, 43)   **(4)** (12, 19, 40)

56. In a code language 'BLOCK' is written as '31316412'. How will 'SUPREME' be written in that language?

(1) 202217196146   **(2)** 192116185605
(3) 202317206146   **(4)** 192217196156

57. There are two couples in a family. Komali has two children, Madhurima is the wife of Omprakash, who is the brother of Mani. Pinky is the daughter of Komali. Urmila is the sister of Sanju, who is the son of Omprakash. Tarun is the son of Mani, who is a male. How is Madhurima related to Komali?

(1) Sister
(2) Aunt
(3) Mother
(4) Sister-in-law

58. Select the Venn diagram that best illustrates the relationship among the following classes: Uncle, Relatives, Rich

59. Read the given statements and conclusions carefully. Assuming that the information given in the statements is true, even if it appears to be at variance with commonly known facts, decide which of the given conclusions logically follow(s) from the statements.
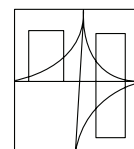
Statements:

I. All polygons are angles.
II. All angles are diagonals.
III. All cones are cubes.
IV. All cubes are decagons.
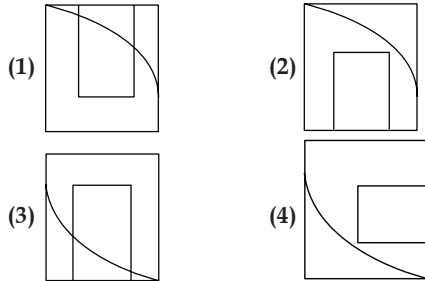**V.** No diagonal is a cube.

Conclusions:

I. Some diagonals are polygons.
II. All diagonals are decagons.
III. No polygon is a cone.
IV. Some cubes are angles.

(1) Bothe conclusions II and IV follow.
(2) Only conclusion I follows.
(3) Both conclusions I and II follow.
(4) Both conclusions I and III follow.

60. Which answer figure will complete the pattern in the question figure?

Question Figure:

Answer Figures:

(1)

(2)

(3)

(4)

61. Which number will follow next in the given series?
3, 16, 29, 42, ?
(1) 57   **(2)** 55
(3) 54   **(4)** 61

62. Six friends A, B, C, D, E and F are sitting around a round table facing the centre. C is seated between A and B, B is in immediate left of D. If C is facing E, who is facing F?
(1) E   **(2)** A
(3) D   **(4)** B

63. Select the correct option that will fill in the blank and complete the series.
dmt, fkv, ihy, mdc, ...
(1) ryh   **(2)** rzh
(3) qzl   **(4)** rxi

64. In the following question, two statements are given each followed by two conclusions I and II. You have to consider the statements to be true even if they seem to be at variance from commonly known facts. You have to decide which of the given conclusions, if any, follows from the given statements.

Statements:
(I) Major companies are nowadays surviving because of the strong supply chain system.
(II) Supply chain comprises of logistics, retailers and distributors.

Conclusions:
(I) Retailers play most important role because they interact with customers on first hand.
(II) If an organization has strong logistics, then product can easily be available to the customers in such an era of competition.
(1) Only Conclusion II follows
(2) Conclusion I and II both follow
(3) Neither I nor II follow
(4) Only Conclusion I follows

65. Select the correct option that is related to the third term in the same way as the second term is related to the first term.
Television : Telecast :: Radio : ?
(1) Broadcast   **(2)** Friendship
(3) Compose   **(4)** Talking

66. Mohini is taller than Nita but not shorter than Sarita. Sarita and Malini are of same height. Mohini is shorter than Hema. Among them, who is the second tallest?
(1) Mohini
(2) Nita
(3) Hema
(4) Cannot be determined

67. Ramesh is the father of Manideep. Ramesh has only two children. Manideep is the brother of Niharika. Niharika is the daughter of Kavita. Ananya is the granddaughter of Kavita. Sujit is the father of Ananya. How is Sujit related to Manideep?
(1) Soni   **(2)** Brother
(3) Brother-in-law   **(4)** Son-in-law

68. Which two signs/numbers need to be interchanged to make the given equation correct?
8 ÷ 2 + 4 = 10
(1) ÷ and +, 8 and 4
(2) ÷ and +
(3) + and ÷, 8 and 2
(4) + and ÷, 2 and 4

69. From a point D Sarita Walked 50 metres to the North, then after turning to right walked 50 metres. She again turned right and walked another 70 metres and finally turned to right and walked 50 metres. In which direction and at what distance is she from the starting point D?
(1) 20 metres to the North
(2) 40 metres to the South
(3) 20 metres to the South
(4) 30 metres to the South

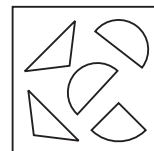**70.** Select the correct option that will fill in the blank and complete the series.
cab, gef, ljk, rpq, ...
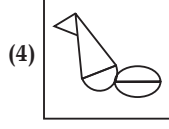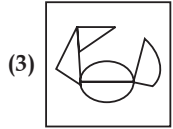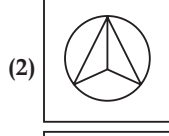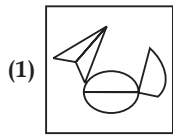**(1)** ywx   **(2)** yxw
(3) zxy   **(4)** wvu

71. Pointing to a lady, Diwakar said, "Her mother's only grandson is my son." How is that lady related to Diwakar?
(1) Aunty   **(2)** Sister
(3) Mother   **(4)** Wife

72. Question figure

Answer figures

(1)

(2)

(3)

(4)

73. Kamal starts walking from his home facing West direction. After walking 10 km he takes a right turn and walks another 10 km. He takes another right turn and walks 10 km to reach his school. How far (in km) and in which direction is he from his home?

(1) 10, North

(2) 10, South

(3) 20, North-East

(4) 20, South-West

74. Select the term that will come next in the following series.

YCL, MQZ, ..., OSB

(1) AEN

(2) BFQ

(3) ADM

(4) BEM

75. Select the fraction that will next in the following series.

2, 4, 6, 8, 10, 12, ...

3, 5, 7, 9, 11, 13, ...

(1) $\dfrac{14}{15}$

(2) $\dfrac{14}{16}$

(3) $\dfrac{13}{15}$

(4) $\dfrac{13}{14}$

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