RRB GROUP D

TEST SERIES

DATE- __/__/__

DAY- _____

INSTRUCTION FOR CANDIDATE

TEST SERIES NO.

SG Set - 21

QUESTION- 100   **MARKS- 100**   **NEGATIVE MARK- 0.33**   **DURATION- 90 MIN.**

1. Use only ball pens with black or blue ink
2. As soon as the examination starts, you must check this question booklet and if there is any unprinted, mutilated or partially printed page or question in it, then replace it with the correct question booklet through the examiner.
3. There are a total of 100 questions in this question booklet.
4. This is an objective test, in which four options are given for the answer to each question, you have to choose only one option with the correct answer out of these four options.
5. Answers to all questions are to be written on separate answer sheets.

6. Instructions for filling the answer sheet are written on the back side of the answer sheet, read them carefully before filling the answer sheet.
7. Blank pages are available in this question booklet for rough work.
8. Candidates cannot leave the room before the end of the examination.
9. After the examination is over, you can go out only with his permission after submitting the ORIGINAL COPY of the answer sheet to the invigilator.
10. After the completion of the examination, the candidate is allowed to take the question booklet and answer sheet with him/her.
11. 1 marks will be given for each correct answer and 0.33 marks will be deducted for each wrong answer.

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1. The pressure for 1 newton force acting normally on an area of 12 m will be
(a) 1 joule
(b) 1 pascal
(c) 1 watt
(d) 1 faraday

2. Which of the following is an alloy?
(a) Copper
(b) Iron
(c) Stainless steel
(d) Gold

3. Octane number is a measure of the quality of which of the following?
(a) Petrol
(b) Diesel
(c) Kerosene oil
(d) Edible oils

4. Cholera disease is caused by
(a) Bacteria
(b) Insects
(c) Viruses
(d) Infection

5. Flowering plants bearing flowers, fruits and seeds are called
(a) Cryptogams
(b) Ferns
(c) Gymnosperms
(d) Angiosperms

6. Identify the alkane from the following
(a) C_3H_4
(b) C_2H_6
(c) C_3H_6
(d) C_2H_2

7. Carbon has a large number of compounds because
(a) Its compounds are inflammable and have low melting and boiling points
(b) It is a non-metal and its covalency is four
(c) It has a high tendency to catenate
(d) It forms covalent bonds is

8. Magnetic quantum number gives information about
(a) Spin of an electron
(b) Orientation of orbitals
(c) Total energy of an orbital
(d) Shape of orbitals

9. When 1 newton force acts on 1 kg mass and the body is able to move freely, then the body moves
(a) with 1 m/s^2 acceleration
(b) with 1 km/s^1 speed
(c) with 10 m/s^2 acceleration
(d) with 1 m/s speed

10. Anti-sterility vitamin is
(a) Vitamin-K
(b) Vitamin-E
(c) Vitamin-A
(d) Vitamin-B

11. In which part of coconut fibres are found?
(a) Exocarp wall
(b) Seed shell
(c) Endocarp wall
(d) Mesocarp wall

12. How many ergs are there in 1 joule?
(a) 10^7
(b) 10^6
(c) 10^4
(d) 10^2

13. Unicellular organisms are classified as
(a) Molluscs
(b) Arthropods
(c) Protozoans
(d) Mammals

14. Which one of the following is a strong acid?
(a) CH_3COOH
(b) H_2CO_3
(c) HNO_3
(d) HCN

15. If a person has A and B antigens in his red blood cells, which antibody will be present in his serum?
(a) Antibody-A
(b) Antibody-B
(c) No antibody
(d) 'a' and 'b'

16. At the same temperature, the speed of sound will be maximum in which of the following?
(a) H_2 gas
(b) O_2 gas
(c) N_2 gas
(d) Equal in all gases

17. Which of the following has maximum molecules?
(a) 1 gram H_2
(b) 1 gram N_2
(c) 1 gram CH_4
(d) 1 gram CO_2

18. Which isotope of hydrogen is heavy water?
(a) ^1_1H
(b) ^2_1H
(c) ^3_1H
(d) ^1_1H

19. The relation between the focal length and radius of curvature of a spherical mirror is
(a) $f = \frac{R}{2}$
(b) $R = \frac{t}{2}$
(c) $f = 2R$
(d) $f = R$

20. The change in temperature of a system is 50°C. The change in temperature on Kelvin scale is
(a) 50 K
(b) 323 K

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(c) 122 K   (d) 70 K

21. Which one of the following is not alkaline?

(a) Sodium   (b) Potassium

(c) Lithium   (d) Sulphur

22. What are Infra-red rays?

(a) Longitudinal waves

(b) Transverse waves

(c) Mechanical waves

(d) Electromagnetic waves

23. If the power of a lens is +2 diopters, what will be its focal length?

(a) 50 cm   (b) 10 cm

(c) 1 m   (d) 100 cm

24. Three wires whose resistances are $2\Omega, 3\Omega$ and 4Ω respectively, are connected in parallel. The equivalent resistance of the circuit formed is

(a) $\frac{12}{13}\Omega$ (b) $\frac{1}{6}\Omega$

(c) $\frac{11}{6}\Omega$ (d) $\frac{1}{11}\Omega$

25.Which compound is responsible for the temporary hardness of water?

(a) $Mg(HCO_3)_2$ (b) $CaCl_2$

(c) $MgSO_4$ (d) $CaCO_3$

26. Find the least number which when divided by 16, 18 and 20 leaves a remainder of 4 each time and is exactly divisible by 7

(a) 364   (b) 2254

(c) 2884   (d) 3234

27. A bicycle marked at ₹2000 is sold at successive discounts of 20% and 10%. An additional discount of 5% is given for cash payment. The selling price of the bicycle on cash payment will be

(a) ₹1368   (b) ₹1468

(c) ₹1568   (d) ₹1668

28. 30 oranges and 75 apples were purchased for ₹510. If the price of apples was ₹2 per apple, the average price of oranges was

(a) ₹12   (b) ₹14

(c) ₹10   (d) ₹15

29. In what ratio should rice costing ₹7.50 per kg and rice costing ₹10 per kg be mixed so that the mixture costs ₹8.25 per kg?

(a) 4:3   (b) 7 : 3

(c) 8 : 3   (d) 2:5

30. The ratio of the present ages of two brothers is 1 : 2. Five years ago the ratio was 1 : 3. What will be the ratio of their ages after five years?

(a) 1 : 4   (b) 2:3

(c) 3 : 5   (d) 5:6

31. The product of the LCM and HCF of two numbers is 24. If the difference of the numbers is 2, then the larger number is

(a) 3   (b) 4

(c) 6   (d) 8

32. The average marks obtained by the students of a class is 68. The average marks obtained by the girls in that class is 80, while the average marks obtained by the boys is 60. What is the percentage of boys in that class?

(a) 70   (b) 60

(c) 65   (d) 40

33. Of the three numbers, the first number is twice the second and the second number is thrice the third number. If their average is 100, then the largest of the three numbers is

(a) 120   (b) 150

(c) 180   (d) 300

34. If 20% of (P + Q) = 50% of (P - Q), then find the value of P : Q

(a) 8 : 7   (b) 7 : 3

(c) 5:7   (d) 7:5

35. In an examination a student got 30% marks and failed by 12 marks. In the same examination another student got 40% marks and got 18 marks more than the minimum passing marks. What should be the marks to pass?

(a) 102   (b) 120

(c) 150   (d) 132

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36. A boy goes from his home to school at a speed of 3 km/hr and while returning comes at a speed of 2 km/hr. If he takes 5 hours to come and go, then the distance between his home and school is
(a) 6 km
(b) 5.5 km
(c) 6.5 km
(d) 5 km

37. There are equal number of soldiers in rows of 12, 15 and 18. If they are arranged in a perfect square, then the minimum number of soldiers is
(a) 32400
(b) 450
(c) 900
(d) 189

38. P can do a work in 60 days. He works for 15 days and the remaining work is completed by Q alone in 30 days. In how much time can they both together complete the work?
(a) 24 days
(b) 30 days
(c) 25 days
(d) 32 days

39. A sum of money doubles in 10 years. In how many years will it triple at the same rate of simple interest?
(a) 12
(b) 18
(c) 15
(d) 20

40. A boat goes 40 km upstream in 8 hours and 36 km downstream in 6 hours. The speed of the boat in still water is
(a) 5 km/h
(b) 5.5 km/h
(c) 6 km/h
(d) 6.5 km/h

41. M and N can complete a work in 15 days and 10 days respectively. Both of them start working together, but after 2 days N has to leave and M alone completes the remaining work. In how many days was the whole work done?
(a) 10 days
(b) 12 days
(c) 8 days
(d) 15 days

42. The perimeter of a rhombus is 60 cm and one of its diagonals is 24 cm. What will be the area of the rhombus?
(a) 432 sq cm
(b) 216 sq cm
(c) 108 sq cm
(d) 206 sq cm

43. What will be the number of diagonals in a regular polygon of 8 sides?
(a) 18
(b) 20
(c) 24
(d) 16

44. If $\sqrt{7\,mA} = 1$, then what is the value of $\frac{cosec^2A - sec^2A}{cosec^2A + sec^2A}$?
(a) $\frac{3}{4}$
(b) $-\frac{4}{3}$
(c) $\frac{1}{4}$
(d) $\frac{3}{\sqrt{7}}$

45. If the median of some data is 9.89 and the mean is 14.10, then find the mode
(a) 1.36
(b) 1.89
(c) 1.63
(d) 1.47

46. Will the two needles of the clock meet between 1 and 2 o'clock?
(a) 1 past 30
(b) 1 past $10\frac{8}{10}$ minutes
(c) 1 past $5\frac{5}{11}$ minutes
(d) None of the above?

47. Two pipes A and B can fill a tank in 24 minutes and 30 minutes respectively. Both are opened simultaneously, but the first one is turned off after 8 minutes. The time taken by B to fill the tank is
(a) 10 minutes
(b) 8 minutes
(c) 12 minutes
(d) 16 minutes

48. 60 persons take 36 days to build a wall. When one-sixth of the work is completed, one-fourth of the workers leave the work. How many days in all will they take to complete the work?
(a) 46
(b) 45
(c) 40
(d) 48

49. Prabhat covers a distance of 240 km at a certain speed. If he cycles 3 km faster every hour, he takes 4 hours less to reach the destination. At what speed did Prabhat actually cycle?
(a) 9
(b) 10
(c) 12
(d) 15

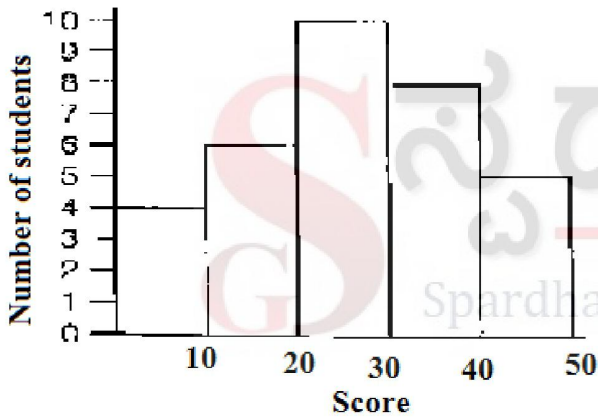50. The marked price of a toy was ₹ 2100. Two successive discounts of 20% and 15% were given

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on it during a sale. What was the selling price of the toy?

(a) ₹1460   (b) ₹1428
(c) ₹1365   (d) ₹1397

51. A group of 1200 persons including captains and soldiers are travelling by train. If there is one captain for every 15 soldiers, then what is the number of captains in the group?

(a) 80   (b) 82
(c) 75   (d) 70

52. Study the given bar chart and answer the question based on it.

What is the ratio of number of students securing less than 20 marks and those securing more than 30 marks?

(a) 15:14   (b) 6:15
(c) 13 : 14   (d) 10:13

53. How many meaningful English words can be formed from the letters ACRS, while in each word, each letter is used only once? (a) None
        (b) One
(c) Two   (d) Three

54. In a certain code '329' means 'GOD IS LOVE' '927' means 'LOVE IS BEAUTIFUL' then what will be the code for 'GOD'?

(a) 3   (b) 7
(c) 9   (d) 2

55. If ' + ' means ' - ', ' - ' means '×, '× ' means ' ∵ and ' ÷ ' means ' + ', then 18×3÷15+6-1= ?

(a) 8   (b) 15
(c) 12   (d) 20

56. Sanjeev goes 10 km north, from there he goes 6 km south, then he goes 3 km east. Tell in which direction and at what distance Sanjeev is from his starting point?

(a) 9 km, West   (b) 7 km, East
(c) 5 km, West   (d) 5 km, North-East

57. Which of the following options will give a meaningful order of the words given below?

1. Type   2. Print
3. Open   4. Save
5. Close

(a) 3, 5, 4, 2, 1   (b) 2, 3, 4, 1, 5
(c) 3, 1, 4, 2, 5   (d) 3, 4, 1, 2, 5

Directions (Q. No. 58-60) Choose the odd word/letter/number from the following options.

58.
(a) Rectangle   (b) Circle
(c) Triangle   (d) Cone

59.
(a) POSR   (b) YXWV
(c) VUXW   (d) FUEV

60.
(a) 8341   (b) 2185
(c) 3249   (d) 2711

61. If the third Tuesday of a month is the 20th day, then what is the 11th day of the month?

(a) Friday   (b) Thursday
(c) Sunday   (d) Tuesday

62. If 'wind' is called 'stone', 'stone' is called 'water', 'water' is called 'bridge', 'bridge' is called 'rain', 'rain' is called 'hot' and 'hot' is called 'cold', then with what will we wash our hands?

(a) bridge   (b) cold
(c) stone   (d) water

63. Which number will come in place of question mark (?) in the following number series?
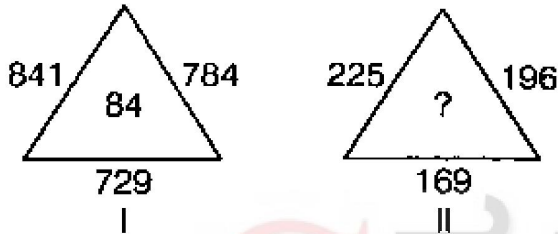
4, 12, 8, 9, 12, ?, 16, 3

(a) 10   (b) 14

(c) 6   (d) 1

64. Which group of the given letters when sequentially placed in the blank spaces will complete the given letter series?

b_abbc_bbca_bcabb_ab

(a) cacb   (b) cabc

(c) acba   (d) acaa

65. Find the missing term (?)

(a) 85   (b) 42

(c) 32   (d) 62

66. Which term in the given question is wrong or different?

CPZ, EQY, GRX, ISV, KTV

(a) CPZ   (b) GRX

(c) EQY   (d) ISV

67. Which of the following conclusions can be drawn from the given statements?

Statement

A. Kabirdas wrote many poems.

B. Every poet has aesthetic knowledge.

C. Aesthetics is a part of value-based studies.

Conclusion

I. Kabirdas did various value-based studies.

II. He adopted the basis of logic and ethics.

(a) Only conclusion I follows

(b) Only conclusion II follows

(c) Both conclusions I and II follow

(d) None of the above

Directions (Q. No. 68 and 69) Below are given two statements followed by two conclusions I and II. You should examine the statements assuming them to be true even if there is a difference in commonly known facts. You decide which of the given conclusions, if any, follow from the given statements.

68. Statement All clouds are fog. All fogs are white.

Conclusions

I. Some white are clouds.

II. Some fogs are clouds.

(a) Both the conclusions are correct

(b) Neither conclusion I nor conclusion II is correct

(c) Only conclusion I is correct

(d) Only conclusion I is correct

69. Statement Teachers are role models for students. It is the responsibility of teachers to develop scientific attitude in their students.
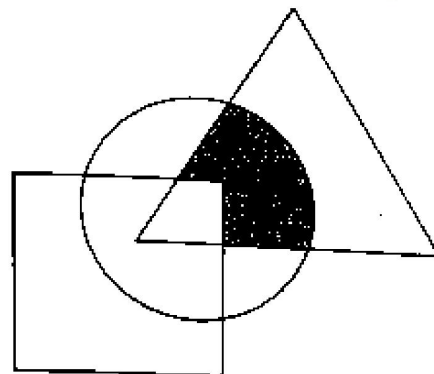
Conclusion

I. Students do not have scientific attitude.

II. Teachers can influence scientific attitude of students.

(a) Both conclusions I and II follow

(b) Neither conclusion I nor II follows

(c) Only conclusion I follows

(d) Only conclusion II follows

70. What does the shaded portion in the following diagram represent, if triangle represents poor, circle represents family and square represents rich?
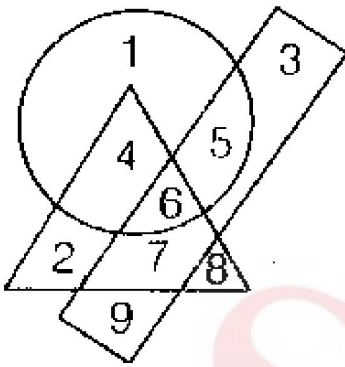

(a) Urban family

(b) Poor family

(c) Neither urban nor poor family

(d) Urban and poor family

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71. Which of the following interchange of signs or numbers will make the given equation correct?
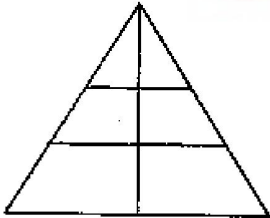(5+2)×2-10=16
(a) 5 and 10   (b) + and ×
(c) 5 and 2   (d) + and –

72.Which number is common to all the three geometrical figures?

(a) 7   (b) 4
(c) 6   (d) 5

73.How many triangles are there in the given figure?
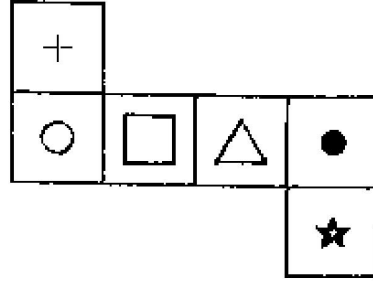

(a) 27   (b) 9
(c) 11   (d) 17

74.P is the father of J. S is the mother of N who is the brother of J. B is the son of S. C is the daughter of B. How is J related to C?
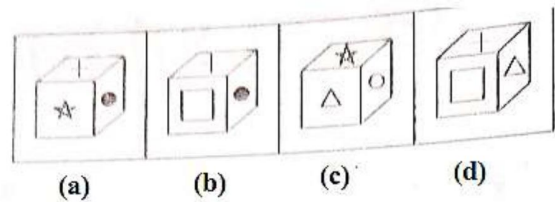(a) Brother   (b) Sister
(c) Data are insufficient   (d) Cousin

75.Select the cube that will be formed by folding the given question figure.
Question Figure

Answer Figures

(a)   (b)   (c)   (d)

76. Children in a row are facing north. Among them Sameer is 17th from the left and second to the right of Jyoti who is 15th from the right in that row. How many children are there in the row?
(a) 31   (b) 24
(c) 30   (d) 29

77. If 24th of a month is Monday, what day will be on 12th of the same month?
(a) Saturday   (b) Sunday
(c) Wednesday   (d) Tuesday

78. How many such pairs of letters are there in the word GOVERNMENT, each of which has as many letters between them in the word as there are between them in the English alphabet?
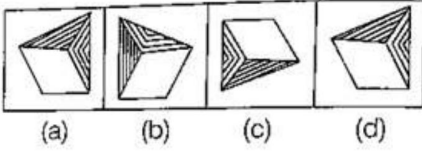(in both forward and backward directions)
(a) Two   (b) More than three
(c) One   (d) Three

79. Choose the answer figure which is the exact water image of the question figure?

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Question figures

Answer figures

(a)   (b)   (c)   (d)

80.Four Air Force planes A,B,C,D took off for a demonstration flight towards the east. After flying 50 km, planes A and D flew to the right; while planes B and C flew to the left. After flying 50 km, planes B and C again flew to their left, while planes A and D also flew to their left. Now in which direction are the planes A,B,C,D flying respectively?
(a) East, West, West, East
(b) West, East, West, East
(c) North, South, East, West
(d) South, North, West, East

81.In which state is the aluminium company 'NALCO' located?
(a) Uttar Pradesh   (b) Karnataka
(c) Odisha   (d) Jharkhand

82.Who founded Nalanda University?
(a) Skandagupta   (b) Ashoka
(c) Kumaragupta   (d) Chandragupta II

83.The famous Nehru Trophy is related to which sport?
(a) Cricket   (b) Hockey
(c) Football   (d) Polo

84.The Lepcha tribals are residents of which state?
(a) Sikkim   (b) Manipur
(c) Nagaland   (d) Kerala

85.Where is the Air Force Administrative College located in India?
(a) Hyderabad   (b) Salem
(c) Coimbatore   (d) Kochi

86. Shanti Swarup Bhatnagar Award is given for outstanding work in which field?
(a) Social work
(b) Science and technology
(c) Environmental protection
(d) Community leadership

87. Dhanraj Pillai is associated with which sport?
(a) Hockey   (b) Golf
(c) Billiards   (d) Chess

88. In which Olympics did the Indian team reach the semi-finals of football?
(a) Year 1950   (b) Year 1956
(c) Year 1974   (d) Year 1980

89. Which type of soil is found in the plains of North India?
(a) Black soil   (b) Red soil
(c) Alluvial soil   (d) Laterite soil

90. In which continent is Victoria Lake located?
(a) North America   (b) South America
(c) Africa   (d) Asia

91. Who was the editor of 'Bombay Chronicle' newspaper?
(a) Nana Shankar Seth
(b) Dadabhai Naoroji
(c) Pherozeshah Mehta
(d) None of these

92. Where is the National Institute of Hydrology located?
(a) Chennai   (b) Roorkee
(c) Hyderabad   (d) Varanasi

93. Who propounded the principles of 'Ashtanga Marg'?
(a) Mahatma Buddha
(b) Mahavir Swami
(c) Dayanand Saraswati
(d) Swami Vivekananda

94. Who was the first Indian to receive the 'Magsaysay Award'?
(a) Vinoba Bhave   (b) J.P. Narayan

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(c) Kiran Bedi   (d) Amitabh Chaudhary

95. Gir Forest Sanctuary is in which state?

(a) Karnataka   (b) Kerala

(c) Gujarat   (d) Rajasthan

96. Surat is situated on the bank of which river?

(a) Tapti   (b) Narmada

(c) Mahi   (d) Luni

97. Where are Bushmen tribals found?

(a) Atacama Desert   (b) Gobi Desert

(c) Patagonian Desert   (d) Kalahari Desert

98. Which of the following appointments is not made by the President of India?

(a) Air Force Chief

(b) Army Chief

(c) Speaker of Lok Sabha

(d) Chief Justice of India

99. In which country is Atacama Desert located?

(a) USA   (b) Chile

(c) Africa   (d) Australia

100.Which of the following does not come under the Council of Ministers?

(a) Cabinet member

(b) Minister of State

(c) Minister without department

(d) Vice President