DO NOT OPEN THE SEAL OF THE BOOKLET UNTIL YOU ARE TOLD TO DO SO

RRB GROUP D

TEST SERIES

DATE- __/__/__

DAY- _____

INSTRUCTION FOR CANDIDATE

TEST SERIES NO.

SG Set - 18

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.

1.Which of the following is a heterogeneous mixture?

(a) Stainless steel   (b) Iodized salt

(c) Air   (d) Bronze

2.Which of the following is not a method of concentration?

(a) Froth floatation method

(b) Magnetic method

(c) Calcination

(d) Gravitational separation method

3.The temperature at which ferromagnetism disappears and a substance becomes paramagnetic is called

(a) Reversal temperature

(b) Boyle temperature

(c) Curie temperature

(d) Kelvin temperature

4.The weight of a body at the centre of the earth is

(a) Zero

(b) Slightly less than the weight at the equator

(c) Slightly less than the weight at the poles

(d) Infinite

5.Which of the following comes in the fish class?

(a) Shark   (b) Catfish

(c) Dogfish   (d) All of these

6.The component of blood which prevents its clotting in the entire blood vessels is

(a) Thrombin   (b) Heparin

(c) Hemoglobin   (d) Antibody

7.The momentum of a particle of mass m is p. Its kinetic energy will be

(a) mp (b) p^2m
(c) p^2/m (d) $p^2/2m$

8.If resistances of 1.5 ohm, 0.05 ohm and 0.25 ohm are connected in series, then their equivalent resistance will be

(a) 1.80 ohm   (b) 180 ohm

(c) 13.5 ohm   (d) 1.35 ohm

9.On heating copper shavings with concentrated sulphuric acid, ... gas is obtained.

(a) SO_3 (b) SO_2
(c) H_2S (d) H_2

10.Which acid is used to remove ink stain?

(a) Oxalic acid   (b) Acetic acid

(c) Formic acid   (d) Elemental acid

11.A charged particle q is moving with constant velocity v parallel to the lines of force in a uniform magnetic field B. The value of the force applied on the particle is

(a) $q \vee B$ (b) qv/B
(c) Zero   (d) Bv/q

12.At normal temperature and pressure, the speed of sound through air is 332 m/s. If the pressure is increased four times, the speed of sound will be

(a) 166 m/s   (b) 332 m/s

(c) 664 m/s   (d) 1328 m/s

13. A plant that forms spores, has vascular tissue but does not have flowers and seeds, will be described in which group?

(a) Algae   (b) Gymnosperms

(c) Bryophyta   (d) Pteridophyta

14.The image formed by a concave lens will be

(a) always larger than the object

(b) always virtual

(c) always real

(d) always inverted

15.Mica is used in cooking utensils because it

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(a) is a good conductor of heat but a bad conductor of electricity

(b) is a bad conductor of both heat and electricity

(c) is a bad conductor of heat but a good conductor of electricity

(d) is a good conductor of both heat and electricity

16.The colour of the precipitate obtained from the reaction of HCl and $AgNO_3$ will be

(a) green   (b) white

(c) black   (d) blue

17.In the given circuit, the current i flowing through the cell is (internal resistance of the cell is zero)

(a) 1 ampere   (b) $\frac{3}{2}$ ampere

(c) 2 ampere   (d) 3 ampere

A body of mass 18.2 kg is moving in the east direction with an initial velocity of 10 ms^{-1} on a smooth horizontal surface. A uniform force of 10 Newton acts on the body in the north direction. After 2 seconds the final velocity of the body will be

(a) $10\sqrt{2}$ ms^{-1} from east 45° north
(b) $10\sqrt{2}$ ms^{-1} from east 45° south
(c) 20 ms^{-1} towards east
(d) 20 ms^{-1} towards west

19.The heaviness of water is caused by which of the following?

(a) Due to carbonates of Na^+ and K^+

(b) Due to chlorides and sulphates of Ca^{2+} and Mg^{2+}

(c) Due to nitrites and nitrates of Al^{3+}

(d) Due to chlorides and sulphates of Na^+ and K^+

20.Which of the following will give blue-black colour when tested with iodine solution for testing food items?

I. Boiled and mashed potatoes

II. Boiled and chewed rice

III. A piece of roti (bread)

IV. Sugar solution

V. Coconut oil

(a) I, II and III   (b) I, III and V

(c) I and III   (d) I and IV

21.The number of moles in 128 grams of SO_2 will be

(a) 1 mole   (b) 2 moles

(c) 3 moles   (d) 4 moles

22.Soap is

(a) Salt of alkali metals of low grade fatty acids

(b) Salt of alkaline metals of high grade fatty acids

(c) Salt of alkali metals of high grade fatty acids

(d) None of the above

23.Biological soil pollution is caused by

(a) Water   (b) Air

(c) Animals   (d) All of these

24.Calamine is the ore of which metal?

(a) Magnesium   (b) Copper

(c) Zinc   (d) Sodium

25.Enzymes are chemically

(a) Carbohydrates   (b) Lipids

(c) Acids   (d) Proteins

26.One tap can fill a tank in 25 minutes and another can empty it in 50 minutes. If both the taps are opened simultaneously, in how many minutes will the tank be filled?

(a) 30 minutes   (b) 20 minutes

(c) 40 minutes   (d) 50 minutes

27.A room is 6 m long, 5 m wide and 4 m high. If all the four walls of this room are covered with a 50 cm wide paper, then what should be the length (in m) of that paper?

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(a) 176

(b) 170

(c) 88

(d) 80

28.What will be 5% of 5% of 80?

(a) 0.25

(b) 0.20

(c) 2

(d) 0.50

29.5 years later a father's age will be three times his son's age, while 5 years ago the father's age was seven times his son's age. Find the father's present age (in years)

(a) 45

(b) 40

(c) 50

(d) 35

30.If Mahesh's monthly income is 180% more than Suresh's, then by what percent is Suresh's income less than Mahesh's?

(a) 64.29%

(b) 60%

(c) 80%

(d) 70%

31.If Independence Day was on Thursday on 15 August 1999, then on which day was it celebrated in 1993?

(a) Monday

(b) Thursday

(c) Sunday

(d) Saturday

32.What will be the mean of 16, 14, 18 and 20?

(a) 17

(b) 19

(c) 17.5

(d) 18

33.In a two-digit number, the unit's digit is in place of 3 and the sum of the digits of the number is 1/7 of the number. What is that number?

(a) 83

(b) 36

(c) 63

(d) 53

34.A man sells an item at a profit of 20%. If he buys it for 20% less and sells it for ₹ 5 less, he gains 25%. Find the cost price of the item

(a) ₹ ₹ 0

(b) ₹ 60

(c) ₹ 25

(d) ₹ 40

35.5 men and 8 boys complete a work in 5 days. The same work can be completed by 6 men and 3 boys in the same time. How many days will 2 men and 5 boys take to complete the same work?

(a) 12 days

(b) 5 days

(c) 11 days

(d) 15 days

36. Rajeev buys goods worth ₹ 6650. He gets a discount of 6% on it. After getting the discount, he sells it at the rate of 10%. How much amount will he have to pay for the goods purchased?

(a) ₹6876.10

(b) 6999.20

(c) ₹6654

(d) ₹7000

37. A train covers a distance of 20 km in 24 minutes. If its speed is increased by 5 km/hr, then in how many minutes will the train cover the same distance?

(a) $29\frac{9}{11}$ minutes

(b) $21\frac{9}{11}$ minutes

(c) $27\frac{9}{11}$ minutes

(d) $26\frac{9}{11}$ minutes

38. If 63 chocolates are divided between A and B in the ratio of 4:5, then how many chocolates will B get?

(a) 28

(b) 35

(c) 27

(d) 49

39. When a weight of 1.5 kg is hung at one end of a thread of length 15 cm, the length of the thread increases to 16 cm. If a weight of 6 kg is hung at that end, what will be the length of the thread?

(a) 19 cm

(b) 21 cm

(c) 18 cm

(d) 20 cm

40.Solve the following equation.

48÷[35-{30-(31-26÷2×4)}]=?

(a) -2

(b) -3

(c) -4

(d) -8

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41. The simple interest on a principal sum at 8% per annum for a period of 2 years is ₹192. Find the principal sum.

(a) ₹1400   (b) ₹1600

(c) ₹1000   (d) ₹1200

42. Find the sum of first five prime numbers.

(a) 27   (b) 29

(c) 28   (d) 26

43. If one-third of a journey is covered at a speed of 25 km/hr, the next one-third of the journey is covered at a speed of 40 km/hr and the remaining journey is covered at a speed of 50 km/hr, then find the average speed (in km/hr, rounded off to one decimal place) for the whole journey.

(a) 35.3   (b) 30.3

(c) 33.3   (d) 25.3

44. Sarthak can fill a sand pit in 14 days; while Vivan takes 35 days to fill it. Ali can completely empty a full sand pit in 12 days. If all three start working together in the empty pit, in how many days will the sand pit be filled again?

(a) 60   (b) 61

(c) 62   (d) 56

45. If $15x = 0.02y$, then find the value of $\frac{1}{\left(\frac{y+x}{y-x}\right)}$.

(a) $\frac{38}{37}$ (b) $\frac{37}{38}$

(c) $\frac{370}{38}$ (d) $\frac{37}{380}$

46. The value of each interior angle of a regular pentagon is

(a) 72°   (b) 90°
(c) 108°   (d) 120°

47. Find the value of $\sec 33° \csc 57° - \cot 57° \tan 33° + \cot 47° \cot 43°$.

(a) -1   (b) 2

(c) 0   (d) 1

48. Find the arithmetic mean of the observations 3,6,8,10,12,14,18,24 and 31.

(a) 16   (b) 17

(c) 15   (d) 14

49. The sum of two numbers is 9 and the sum of their squares is 41. Find the numbers.

(a) 5,4   (b) 6,3

(c) 7,2   (d) 1,8

50. Two pipes A and B fill a tank in 24 minutes and 32 minutes. If both the pipes are opened simultaneously, after how much time should B be closed so that the tank is filled in 18 minutes?

(a) 8 minutes   (b) 6 minutes

(c) 10 minutes   (d) 4 minutes

51. If 7th September, 2012 is Friday, then what day of the week will be 17th December, 2014?

(a) Thursday   (b) Monday

(c) Wednesday   (d) Sunday

52. Raveena goes 5 km south from her house. From there she goes 7 km towards east, then 4 km towards south, then 7 km towards west and finally 6 km towards south. How far and in which direction is Raveena from her house?

(a) 14 km, south   (b) 9 km, north

(c) 5 km, south   (d) 14 km, north

58. Four words are given below, out of which three are similar while the fourth one is different. Find the odd one out.

(a) Sodium   (b) Radium

(c) Thorium   (d) Uranium

54. If the hour hand of a wrist watch at 6:00 am points towards North-West direction, then at 9:00 pm, the hour hand will point towards which direction?

(a) South-West   (b) South

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(c) North-East   (d) North-West

55. If the positions of '+' and '-' are interchanged and also the positions of ' and '+' are interchanged in the following equation, then what will come in place of question mark (?) in the equation?

17-3÷2+ 12 x 4 = ?

(a) 24   (b) 21

(c) 22   (d) 20

56. Arrange the given words in a meaningful logical order and then select the appropriate sequence from the options given below.

1. Lungs   2. Nostrils

3. Windpipe   4. Blood

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

(c) 1, 3, 4, 2   (d) 4, 3, 2, 1

57. In a certain code language POWER is written as RRAJX and HELLO is written as JHPQU. How will NEVER be written in the same code language?

(a) PHJZX   (b) PHZJZ

(c) PHZJX   (d) PHZXJ

58. Which of the following is always found in 'Bravery'?

(a) Experience   (b) Courage

(c) Power   (d) Knowledge

59. Raghu and Babu are twins. Babu's sister is Reema. Reema's husband is Rajan. Raghu's mother is Laxmi. Laxmi's husband is Rajesh. How is Rajesh related to Rajan?

(a) Uncle   (b) Son-in-law

(c) Father-in-law   (d) Cousin

60. Akash said to Mohit, "The boy in blue shirt is the younger of the two brothers of the daughter of my father's wife." How is the boy in blue shirt related to Akash?

(a) Father   (b) Uncle

(c) Brother   (d) Nephew

61. Choose the conclusion based on the following statement.

Statement F>N >Z ≤ S = B<W

(a) W > Z   (b) N ≥ W

(c) N > B   (d) F > S

62. Choose the number that will come in place of question mark (?) in the following series.

15, 26, 48, 81, 125, ?

(a) 182   (b) 169

(c) 180   (d) 170

63. Choose the correct option that will continue the given pattern in the series and replace the question mark (?)

198, 194, 185, 169, ?

(a) 92   (b) 112

(c) 136   (d) 144

64. If all the digits of the number 8759236 are arranged in ascending order from left to right, then the position of how many digits will remain unchanged with respect to the original number?

(a) One   (b) Four

(c) Two   (d) Three

65. Below is given a statement followed by four conclusions in the options. State which of the given conclusions is true based on the given statements?
Statement X < F <U>A < Z>J

(a) A<Z<X   (b) F≤ U≥A

(c) U>Z>J   (d) U≥A≥F

66. In the following number series one number is wrong, find the wrong number.

3, 4, 10, 32, 136, 685, 4116

(a) 10   (b) 32

(c) 136   (d) 4116

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67. Choose the correct option that will continue the given pattern in the series and replace the question marks (?, ?).

T, R, P, N, L, ?, ?

(a) J, H   (b) J, G

(c) K, H   (d) K, I

68. How many such pairs of letters are there in the word MASTER (in forward direction) which have as many letters between them in the word as they have between them in English alphabetical order?

(a) 2   (b) 4

(c) 3   (d) 1

69. Select the correct option that will continue the pattern given in the series and replace the question mark (?)

ATTRIBUTION, TTRIBUTIO, RIBUTIO, IBUTI,

(a) IBU   (b) UT

(c) UTI   (d) BUT

70. Six boxes J, K, L, M, N and O are placed one above the other but not necessarily in the same order. J is placed just above N. Only one box is placed between K and O. O is the bottommost box and M is the topmost box. Which box is placed just below M?

(a) K   (b) J

(c) N   (d) L

71. Select the set in which the numbers have the same relationship as the numbers in the following sets. (Note: Operations should be performed on whole numbers without splitting them into their constituent digits. For example, operations on 13, such as addition/subtraction/multiplication, etc., should be performed on 13 only. Splitting 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not permitted.)

(6, 30, 54)

(16, 80, 144)

(a) (12, 48, 108)   (b) (8, 35, 72)

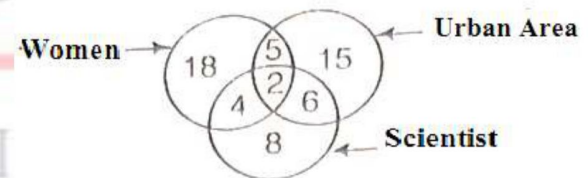(c) (15, 75, 105)   (d) (21, 105, 189)

72. Just as 'fat' is related to 'thin', in the same way, 'inactive' is related to what?

(a) Noble   (b) Professional

(c) Active   (d) Hardworking

73. The age of a father is three times the sum of the ages of his two children. After 6 years his age will be twice the sum of the ages of both children. Find the age of the father.

(a) 54 years   (c) 36 years

(b) 52 years   (d) 50 years

74. Study the given diagram carefully and answer the question asked. The numbers given in different sections represent the number of persons.
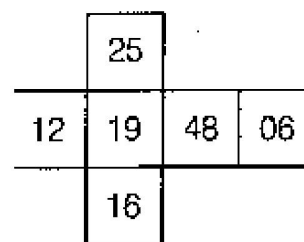

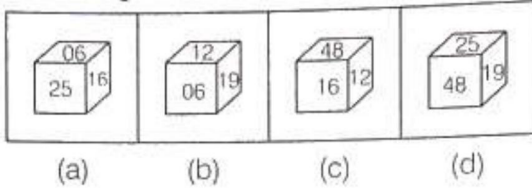How many women scientists are there who are not from urban area?

(a) 6   (b) 4

(c) 5   (d) 2

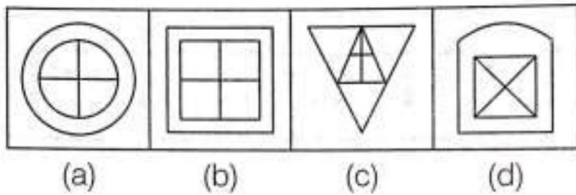75. Which figure can be formed by folding the given question figure?

Question Figure

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Answer Figures

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

76.Which of the given figures is different from the other three?
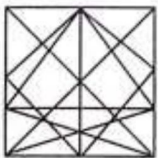

(a)   (b)   (c)   (d)

77.From the following information, find out which is the old red car fitted with a Japanese engine?

Three cars, C, B and E are red in colour while the others are blue. D and F are new models while the rest are old. A, C and D are fitted with Japanese engines while the rest have Indian engines.
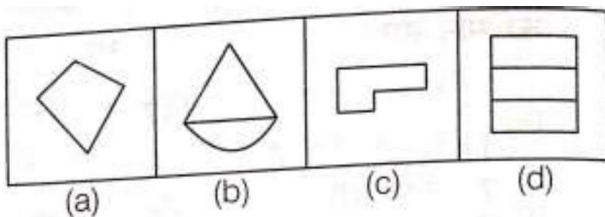
(a) B   (b) D

(c) A   (d) C

78.Which of the following answer figures is included in the question figure?

Question Figure

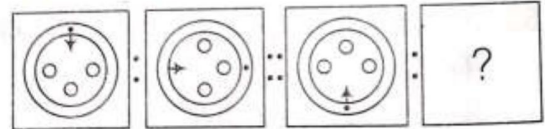Answer Figures

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

79.If Tanvi travels 10 km towards west, then turns south and travels 10 km, then turns east and travels 10 km and then turns north and travels 10 km. How far is she from the starting point?
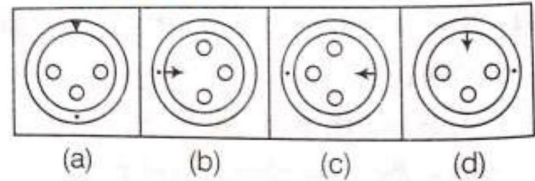
(a) 40 km   (b) 10 km

(c) 0 km   (d) 20 km

80. Select the related figure from the answer figures.

Question figures

Answer figures

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

81.'One Rank One Pension Scheme' is related to?

(a) For pension of soldiers after retirement

(b) For providing pension to the poor

(c) For providing new employment in the country

(d) None of the above

82.Which digital scheme was launched to promote e-education in India?

(a) Setu   (b) Bridge

(c) Swayam Prabha   (d) None of the above

83.Super Nova is a

(a) Asteroid   (b) Black hole

(c) Comet   (d) Dying star

84.Which of the following stars is closest to the Earth?

(a) Ceres   (b) Sun

(c) Pole   (d) Alpha Centauri

85.Which one of the following is not a form of precipitation?

(a) Fog   (b) Hailstorm

(c) Snowfall   (d) Rain

86.The largest shipping canal in the world is

(a) Suez Canal in Egypt

(b) Panama Canal in America

(c) Kiel Canal in Germany

(d) Dive Canal in Sweden

87.Which state does not share border with China?

(a) Nagaland   (b) Uttarakhand

(c) Himachal Pradesh (d) Sikkim

88.The maximum temperature in the Thar Desert in the month of May is between

(a) $35°C - 37°C$ (b) $37°C - 39°C$
(c) $40°C - 43°C$ (d) $43°C - 45°C$

89.Which of the following rivers is known as 'River of Sorrow of Bengal'?

(a) Hooghly   (b) Damodar

(c) Ghaghra   (d) Kosi

90.In which month are Kharif crops sown?

(a) April   (b) June

(c) September   (d) November

91.When were the first modern Olympic Games held?

(a) In 1899 A.D.   (b) In 1897 A.D.

(c) In 1900 A.D.   (d) In 1896 A.D.

92.The state with the highest urban population in India is

(a) West Bengal   (b) Maharashtra

(c) Tamil Nadu   (d) Karnataka

93.In the original constitution, fundamental rights were classified into seven parts, but at present there are only

(a) 6   (b) 4

(c) 3   (d) 2

94.Amjad Ali Khan is associated with

(a) Violin   (b) Sitar

(c) Sarod   (d) Veena

95.Where is the Sahara desert located?

(a) North America   (b) Africa

(c) Asia   (d) Europe

96. Dhyanchand Trophy is related to

(a) Football   (b) Hockey

(c) Cricket   (d) Chess

97. The word 'Bully' is related to

(a) Cricket   (b) Football

(c) Hockey   (d) Volleyball

98. To whom does the President of India send his resignation?

(a) Vice President of India

(b) Prime Minister

(c) Chief Justice of India

(d) None of the above

99. Asking for personal information like bank account etc. of a person through e-mail etc. with the purpose of fraud is called?

(a) Economic crime   (b) Phishing

(c) Cyber espionage   (d) Spam

100. Who built the Peacock Throne?

(a) Jahangir   (b) Aurangzeb

(c) Akbar   (d) Shahjahan

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