



(Download) Railway Recruitment Board : Junior Engineer (JE)
Exam Papers-25-MAY-2019

1. Which of the following teams won the final in Vijay-Hazare Trophy 2018?

- A) Punjab
- B) Rajasthan
- C) Delhi
- D) Mumbai

2. What day of the week will 1 January 2022 be?

- A) Thursday
- B) Saturday
- C) Sunday
- D) Monday

3. The radius of a sphere is 3 times the radius of a cylinder. If their volumes are equal, find the height of the cylinder.

- A) 27 times its radius
- B) 3 times its radius

- C) 36 times its radius
- D) Equal to its radius

4. Which of the following districts won the platinum of Web Ratna Award in Digital India Awards 2018?

- A) Aurangabad
- B) Kurukshetra
- C) Koraput
- D) Chennai

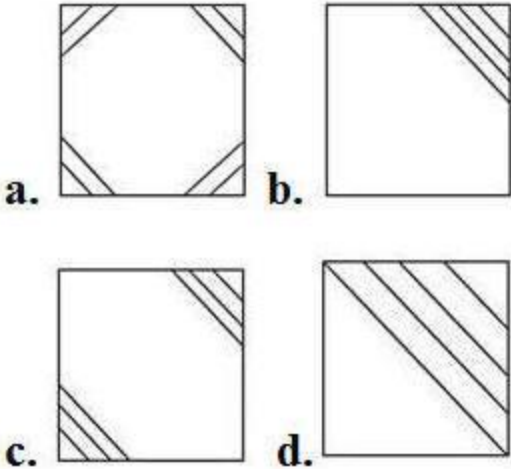
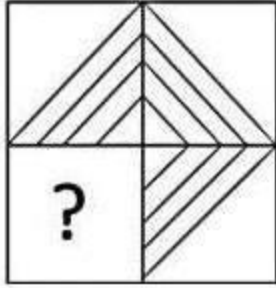
5. What is the shape of the Cocci bacteria?

- A) Spherical
- B) Comma-shaped
- C) Spiral
- D) Rod shaped

6. Find the ODD one out from the given options.

- A) 171, 19
- B) 162, 18
- C) 304, 16
- D) 117, 13

7. Choose from the alternative the figure that best completes the pattern given below.



8. Simplify $\frac{\sin 3A}{\sin A} + \frac{\cos 3A}{\cos A}$

- A) $2 \sin A$
- B) $4 \cos 2 A$
- C) $2 \cos A$
- D) -2

9. Vedha walked 15 m from point A in the east direction and turned south and walked 8 m to reach point B. What is the distance between point A and point B?

- A) 15 m
- B) 12 m
- C) 18 m
- D) 17 m

10. A group of more than three atoms carrying a charge is known as _____ ion.

- A) Tri atomic
- B) Polyatomic
- C) Mono atomic
- D) Di atomic

11. What is the aim of the 'Young Scientist Programme' for students, which was recently launched by ISRO?

- A) To impart basic knowledge of biology
- B) To impart basic knowledge of space technology
- C) To impart basic knowledge of research
- D) To impart basic knowledge of computers

12. If a/b is a fraction, where $a = b - 3$ and $(a + 10)/b - a/b = 10/7$, then find a/b .

- A) $4/7$
- B) $2/5$
- C) $8/11$
- D) $5/8$

13. Which of the following former Indian Presidents served for the shortest duration?

- A) Dr. Zakir Husain
- B) Dr. Rajendra Prasad
- C) Neelam S. Reddy
- D) R. Venkataraman

14. Choose the alternative that best replaces the question mark(?) in the given figure.

16	36	64
4	6	?
15	13	11
11	7	3

- A) 3
- B) 8
- C) 5
- D) 6

15. If $3\left(\frac{2}{5}\right) + 1\left(\frac{2}{9}\right) = 4\left(\frac{4}{5}\right) - a$, find the value of 'a'.

- A) $\frac{4}{45}$
- B) $\frac{11}{45}$
- C) $\frac{16}{9}$
- D) $\frac{6}{25}$

16. Which of these diseases is communicable?

- A) Hypertension
- B) Plague
- C) Cancer
- D) Diabetes

17. Find the ODD one out from the given options.

- A) Bus
- B) Auto
- C) Van
- D) Car

18. The acceleration experienced by an object during a free fall is independent of its-

- A) Mass
- B) Velocity

- C) Pressure
- D) Energy

19. If a convex lens forms a real inverted same size image at 30cm, then the object is placed _____ in front of the lens.

- A) 10 cm
- B) 20 cm
- C) 40 cm
- D) 30 cm

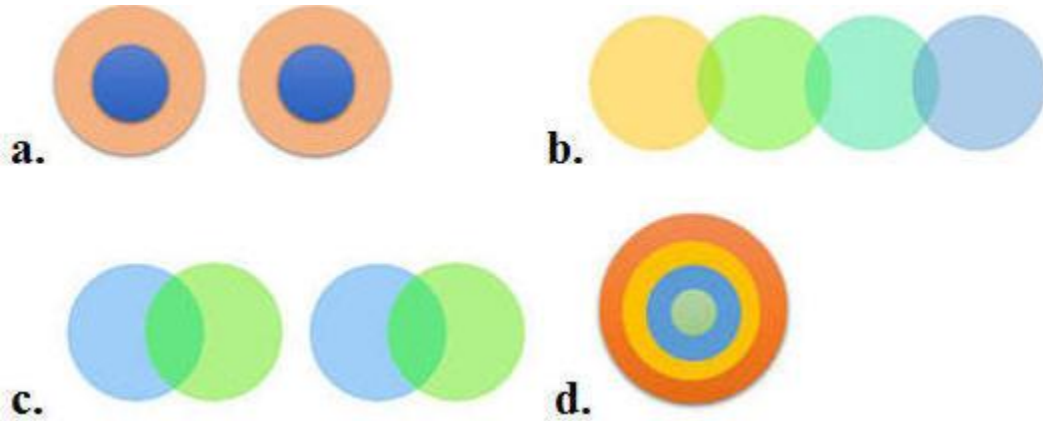
20. A certain sum of money invested at Compound Interest, compounded annually, amounts to Rs.338 at the rate of 4% per annum for 2 years. Find the sum.

- A) Rs.315
- B) Rs.320
- C) Rs.318.52
- D) Rs.312.50

21. K-shell is the _____ energy level.

- A) Third
- B) First
- C) Second
- D) Fourth

**22. Choose the figure that best represents the relationships among the classes given below.
Teachers, Language, Hindi, Educated**



23. Simplify: $(5 + 0.5 + 0.005 + 0.0005 + 0.05) \times 2$

- A) 11.001
- B) 11.011
- C) 11.111
- D) 10.111

24. How is the ammeter connected in all circuits to measure current flowing in it?

- A) In series
- B) In line
- C) Across
- D) In parallel

25. Which satellite is dedicated as India's first multi wavelength space observatory?

- A) SRMSAT
- B) SARAL
- C) Jugnu
- D) Astrosat

26. If in a certain code 'COLOURED' is written as 'XDPDNAQZ', then how will 'ORDER' be written in that code?

- A) DAZAQ
- B) DAZQA
- C) DAQZA
- D) ADZQA

27. What digit will come in the place of 'a' in the number 1a5a01, if it is divisible by 11?

- A) 8
- B) 5
- C) 4
- D) 6

28. Simplify : $5 + 4 \times 5^2 + 4 \times 5^3 + 4 \times 5^4 + 4 \times 5^5$

- A) 5^2
- B) 56
- C) 58
- D) 54

29. P and Q can do a work individually in 15 days and 20 days respectively. Find the respective ratio of their efficiencies.

- A) 4 : 3
- B) 3 : 4
- C) 4 : 5
- D) 5 : 4

30. Which organ in the human body helps to maintain balance?

- A) Ear
- B) Brain
- C) Heart
- D) Liver

31. Which of the following is a use of ethanol?

- A) In cough syrups
- B) All of the options
- C) In alcoholic drinks
- D) Manufacturing paints

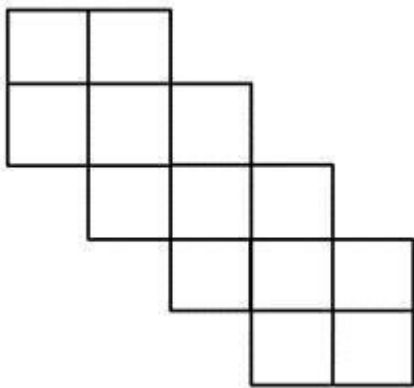
32. Gokul walks 8 km from his home towards east. He turns left to cover 2 km, and he turns right and walks 3 km. Find the distance he travelled towards east?

- A) 14 km
- B) 8 km
- C) 11 km
- D) 5 km

33. Which Article of Indian Constitution gives the procedure for impeachment of the President?

- A) Article 59
- B) Article 61
- C) Article 48
- D) Article 42

34. How many squares are there in the given figure?



- A)15
- B)17
- C)21
- D)19

35. Which number will best complete the relationship given below?

6 : 24 :: 120 : ?

- A) 212
- B) 215
- C) 229
- D) 210

36. The liquid portion of blood is called-

- A) Lymph
- B) Plasma
- C) Water
- D) Serum

37. Which nutrient provides the maximum energy on breakdown?

- A) Carbohydrates
- B) Fibres
- C) Proteins
- D) Fats

38. In which part of the human ear is amplification of sound done by 3 bones?

- A) Inner ear
- B) Auditory nerve
- C) Middle ear
- D) Outer ear

39. Complete the series.

ABZ, BCY, CDX, DEW, (...)

- A) DEV
- B) DEF
- C) FEV
- D) EFV

**40. Complete the series.
B, C, F, G, J, K, (...)**

- A) O
- B) M
- C) N
- D) P

41. Which Indian city is famous for the embroidery work called 'Chikankari'?

- A) Hyderabad
- B) Lucknow
- C) Ahmedabad
- D) Puri

42. Archery is the national game of-

- A) Bhutan
- B) Switzerland
- C) Sri Lanka
- D) Denmark

43. Sneha wants to go to the market. She starts from her home which is in the north and comes to the crossing. The road to her left ends in a park and straight ahead is the office complex, and market is located direct opposite to the park. In which direction is the market to the crossing?

- A) North
- B) East
- C) West
- D) South

**44. Find the missing number in the following series.
8 , 6 , 8 , 14 , 30 , (...) , 233**

- A) 55
- B) 60
- C) 72
- D) 77

45. Find the value of $\sin 60^\circ \cos 30^\circ + \cos 60^\circ \sin 30^\circ$.

- A) $3/4$
- B) 1
- C) $1/4$
- D) $1/2$

46. Two stations A and B are 110 km apart on a straight line. One train starts from A at 7 a.m. and travels towards B at 20 km/h. Another train starts from B at 8 a.m. and travels towards A at a speed of 25 km/h. At what time will they meet?

- A) 9 a.m.
- B) 10.30 a.m.
- C) 11 a.m.
- D) 10 a.m.

**47. Find the wrong number in the given series.
6, 12, 21, 36, 56, 81**

- A) 12
- B) 36
- C) 21
- D) 56

48. Which is the longest muscle in the body?

- A) Soleus
- B) Trapezius
- C) Gracilis
- D) Sartorius

49. If A and B are supplementary angles, then find the value of $\frac{\tan A + \tan B}{1 - \tan A \tan B}$

- A) 1
- B) 1/2
- C) 0
- D) -1

50. To which of the following family of elements does potassium belong?

- A) Halogens
- B) Noble gases
- C) Alkaline earth metals
- D) Alkali metals

51. Find the ODD one out from the given options.

- A) Cheetah
- B) Elephant
- C) Cougar
- D) Leopard

**52. Complete the series.
4, 4, 8, 24, 96, (...)**

- A) 493
- B) 448
- C) 480
- D) 461

53. Ten years ago, the ages of father and son were in the ratio 3 : 1. Ten years hence this ratio will be 2 : 1. What is the age of the father now?

- A) 65
- B) 70

- C) 75
- D) 55

54. Pure ghee costing Rs.100 per kilogram and vegetable oil costing Rs.50 per kilogram are mixed in some ratio and sold at Rs.96 per kilogram so as to gain 20%. In what ratio is ghee and oil mixed?

- A) 3 : 4
- B) 2 : 3
- C) 4 : 3
- D) 3 : 2

55. Which of the following diseases is a disease of the lung?

- A) Allergy
- B) Tetanus
- C) Tuberculosis
- D) Cancer

56. According to World Health Organization, the soft water has 0 to _____ milligram per litre as CaCO_3 .

- A) 120
- B) 60
- C) 30
- D) 90

57. Read the following information carefully and answer the question given below.

A, B, C, D, E, F, G and H are sitting around a circle facing the center. B is third to the right of F and third to the left of H. C is fourth to the left of A. A is not an immediate neighbor of F and B. E is not an immediate neighbor of B. G is second to the right of D.

Which of the following pairs represents the immediate neighbors of F?

- A) C and H
- B) E and D

- C) C and E
- D) H and D

58. The price of a book was first increased by 25% and then reduced by 20%. What is the change in its original price?

- A) 5% decrease
- B) 10% increase
- C) No change
- D) 10% decrease

59. The cooking gas (LPG) mainly consists of-

- A) Ethene
- B) Ethyne
- C) Propane and Butane
- D) Propene

60. Which of these is a hill station in Rajasthan?

- A) Nainital
- B) Mount Abu
- C) Kasauli
- D) Panchgani

61. Which organ in the human body regulates the sugar content in the blood?

- A) Gall bladder
- B) Liver
- C) Stomach
- D) Pancreas

62. A vessel contains 20 litres containing milk and water in the ratio 3 : 2. Ten litres of this milk is removed and replaced with equal amount of pure milk. If this process

is repeated once again, find the final ratio of milk and water.

- A) 5 : 3
- B) 1 : 4
- C) 4 : 1
- D) 9 : 1

63. Which of these plants is mainly found in deserts?

- A) Cactus
- B) Eucalyptus
- C) Oak
- D) Teak

64. If the selling price is doubled, then profit triples. What is the profit per cent?

- A) 120%
- B) 60%
- C) 80%
- D) 100%

65. Which of these places was founded in 1577 by Guru Ram Das?

- A) Jalandhar
- B) Chandigarh
- C) Ludhiana
- D) Amritsar

66. In what time will a train 100 m long cross an electric pole, if its speed is 144 km/h?

- A) 5 seconds
- B) 12.5 seconds
- C) 2.5 seconds
- D) 4.25 seconds

67. Which disease is prevented with the help of Salk's vaccine?

- A) Measles
- B) Chicken pox
- C) Small pox
- D) Polio

68. Sodium metal is stored in-

- A) Acetone
- B) Water
- C) Kerosene
- D) Ether

69. Which of the following is NOT a celestial object?

- A) Planets
- B) Stars
- C) Sun
- D) Ocean

70. The process of movement of molecules from a higher concentration place to a lower concentration places is known as-

- A) Diffusion
- B) Sublimation
- C) Condensation
- D) Evaporation

71. A right circular cylinder just encloses a sphere of radius 6 cm. If A and B are their curved surface areas, then:

- A) $A < B$
- B) $A = B$

- C) $A > B$
- D) Cannot be determined

72. Who is the present captain of India's men National field hockey team?

- A) Harmanpreet Singh
- B) Manpreet Singh
- C) Rupinder Pal Singh
- D) Akashdeep Singh

73. In universal indicators, red colour shows a pH of-

- A) 0 to 3
- B) 8 to 11
- C) 12 to 14
- D) 4 to 7

74. P takes 10 days and Q takes 24 days to complete a work. With the help of R, they all work together and finish it in 6 days. Find the payment they receive out of a total remuneration of Rs.1000.

- A) P-Rs.500; Q-Rs.350; R-Rs.150
- B) P-Rs.600; Q-Rs.250; R-Rs.150
- C) P-Rs.500; Q-Rs.400; R-Rs.100
- D) P-Rs.400; Q-Rs.350; R-Rs.250

75. When a decomposition reaction is carried out by heating, it is called-

- A) Electrolytic decomposition reaction
- B) Thermal decomposition
- C) Photo decomposition reaction
- D) Non electrolytic decomposition reaction

76. If $9 \# 3 @ 4 = 31$ and $8 \# 7 @ 2 = 58$, then what will be $5 \# 6 @ 7$?

- A) 47
- B) 52
- C) 37
- D) 40

77. What should be the smallest integer in place of * if the number $502*693$ is exactly divisible by 9?

- A) 0
- B) 2
- C) 4
- D) 3

78. Which of the following is equal to Hertz?

- A) s^{-1}
- B) $m s^{-2}$
- C) s
- D) m / s

79. What is the name of the border line between India and China?

- A) Durand Line
- B) McMahon Line
- C) Radcliffe Line
- D) 24th parallel

80. A sum of Rs.25000 amounts to Rs.32000 in 4 years. What is the rate of interest?

- A) 7%
- B) 6%
- C) 8%
- D) 6.5%

81. Find the HCF of 513, 1134 and 1215.

- A) 27
- B) 18
- C) 33
- D) 36

**82. Complete the series.
38, 35, 34, 31, 30, (...)**

- A) 27
- B) 24
- C) 28
- D) 25

83. If $a(a + b + c) = 45$; $b(a + b + c) = 75$ and $c(a + b + c) = 105$, then find the value of $a^2 + b^2 + c^2$.

- A) 90
- B) 83
- C) 225
- D) 625

84. Limestone, chalk and marble are different forms of-

- A) Ammonium hydroxide
- B) Sodium hydroxide
- C) Calcium carbonate
- D) Calcium hydroxide

85. Find the least number that is divisible by 12, 18, 21, and 30.

- A) 1620
- B) 1260
- C) 1060
- D) 1020

86. What is the length of the greatest rod that can be placed in a hall 12 m long, 4 m broad and 3 m high?

- A) 9 m
- B) 13 m
- C) 15 m
- D) 18 m

87. What is the minimum temperature to which a fuel must be heated so that it may catch fire and start burning?

- A) Normal temperature
- B) Ignition temperature
- C) Neutral temperature
- D) Boiling temperature

88. In a certain code, 'HUNTER' is coded as 'UHNTRE'. How is 'MANAGE' coded in that code?

- A) EGNAAM
- B) MAANGE
- C) MNAAEG
- D) AMNAEG

89. If the frequency of a sound wave is 100 Hz, then what is its time period?

- A) 1 second
- B) 0.1 second
- C) 10 seconds
- D) 0.01 second

90. Read the following information carefully and answer the question given below.

Six boys—A, B, C, D, E, F are standing in one row, and six girls—G, H, I, J, K, L are standing in another row in such a way that each girl faces one boy, not necessarily in the same order. G is to the immediate right of the girl who is facing E, the boy at the extreme right. Only B is between D and E. F is to the immediate left of A and to the immediate right of C. I is facing A

and is to the immediate left of H. L is third to the left of J.

Which of the following boys is to the immediate left of D?

- A) B
- B) E
- C) F
- D) A

91. A sum of Rs.1100 was taken as a loan. This is to be paid in two equal instalments. If the rate of interest is 20% per annum, compounded annually, find the amount payable in each instalment.

- A) Rs.670
- B) Rs.720
- C) Rs.600
- D) Rs.620

92. Where did Google launch its first drone delivery service in 2019?

- A) Australia
- B) India
- C) England
- D) United States

93. Find the least perfect square that is divisible by 21, 36 and 66.

- A) 213444
- B) 214344
- C) 214434
- D) 231444

94. An ammeter has _____ resistance, so that it passes maximum current through it.

- A) Infinite
- B) High

- C) Very less
- D) Very high

95. Which are the BRIC countries?

- A) Brazil, Russia, India and Canada
- B) Brazil, Russia, India and China
- C) Britain, Russia, India and China
- D) Britain, Russia, India and Canada

96. Two trains 100 m and 80 m in length are moving in the same direction, with speeds 51 m/s and 42 m/s respectively. In what time will they cross each other?

- A) 30 seconds
- B) 20 seconds
- C) 25 seconds
- D) 18 seconds

97. If 'PEOPLE' is coded as 'PLPOEE', how is 'TREND' coded?

- A) DNERT
- B) NDETR
- C) TREDN
- D) TNERD

98. If '+' means '-', '-' means '+', '÷' means 'x' and 'x' means '÷', then $18 \times 3 \div 4 - 5 + 3 = ?$

- A) 21
- B) 31
- C) 29
- D) 26

99. In some machines, why is using oil as a lubricant not advisable?

- A) Oil sometimes increases friction
- B) Oil makes the movement of the parts tough
- C) Oil makes the machine parts and the whole place dirty
- D) Sometimes oil leaks into the parts of the machine causing undesirable obstruction of working

100. Which of the following will best complete the relationship given below?

BAT : YZG :: EMU : ?

- A) FVN
- B) VNF
- C) VFN
- D) FNV

Answer:-

- 1. (d), 2. (b), 3. (c), 4. (b), 5. (a), 6. (c), 7. (d), 8. (b), 9. (d), 10. (b)
- 11. (b), 12. (a), 13. (a), 14. (b), 15. (c), 16. (b), 17. (b), 18. (a), 19. (d), 20. (d)
- 21. (b), 22. (a), 23. (c), 24. (a), 25. (a), 26. (b), 27. (a), 28. (b), 29. (a), 30. (a)
- 31. (b), 32. (c), 33. (b), 34. (b), 35. (d), 36. (b), 37. (d), 38. (c), 39. (d), 40. (c)
- 41. (b), 42. (a), 43. (c), 44. (d), 45. (b), 46. (d), 47. (a), 48. (d), 49. (c), 50. (d)
- 51. (b), 52. (c), 53. (b), 54. (d), 55. (c), 56. (b), 57. (c), 58. (c), 59. (c), 60. (b)
- 61. (d), 62. (d), 63. (a), 64. (d), 65. (d), 66. (c), 67. (d), 68. (c), 69. (d), 70. (a)
- 71. (b), 72. (b), 73. (a), 74. (b), 75. (b), 76. (c), 77. (b), 78. (a), 79. (b), 80. (a)
- 81. (a), 82. (a), 83. (b), 84. (c), 85. (b), 86. (b), 87. (b), 88. (d), 89. (d), 90. (d)
- 91. (b), 92. (a), 93. (a), 94. (c), 95. (b), 96. (b), 97. (d), 98.

(d), 99. (d), 100. (b)
