Jawahar Navodaya Vidyalaya
Entrance Exam (Class IX)
PRACTICE SET 02

Instructions

1. This question paper contains 100 questions, which is divided into following four sections.
   Section I English (15 Questions); **Section II** Hindi (15 Questions)and
   Section III Mathematics (35 Questions); **Section IV** General Science (35 Questions).
2. Each question carries 1 Mark.
3. The candidate is expected to attempt all the questions.

Section I English

Directions (Q. Nos. 1-5) *Read the passage and answer the questions that are given below.*

Hummingbirds are amazing little birds. They are the smallest of all birds and weigh less than even a penny. The bee hummingbird, barely more than two inches long, is the smallest bird in the world! Unlike most birds, hummingbirds have iridescent feathers. Iridescent feathers glitter and shine in the sun. Hummingbirds are often dazzling combinations of green and red or green and blue. Others are violet, orange, golden, silver or other combinations only Mother Nature could dream up. All hummingbirds have long bills to insert into flowers. Some hummingbirds have special bills to fit into specific flowers. Hummingbirds are the only birds that can fly backwards. Hummingbirds are also unique among bird species in that they drink nectar from flowers. You can attract hummingbirds to your yard with special feeders that are filled with sugar water. These feeders are usually bright red in colour because hummingbirds are attracted to red.

1. Hummingbirds are the only birds that ..... .
   (a) can fly backwards
   (b) are small
   (c) will come to bird feeders
   (d) are green
2. Compared to other birds, hummingbirds are .... .
   (a) about the same size (b) lighter
   (c) heavier (d) larger
3. To attract hummingbirds to your yard, put up feeders with ..... in them.
   (a) sugar water (b) flowers
   (c) berries (d) seeds
4. Of what colour are most hummingbird feeders?
   (a) white (b) green
   (c) red (d) golden
5. Hummingbirds drink ... .
   (a) insects
   (b) berries
   (c) not mentioned in the passage
   (d) flower nectar

Directions (Q. Nos. 6-7) *Select the word from the options for the given definition.*

6. Person who does not believe in the existence of God
   (a) Theist (b) Heretic
   (c) Atheist (d) Fanatic
7. One who eats everything
   (a) Cannibal (b) Herbivorous
   (c) Omnivorous (d) Carnivorous

Directions (Q. Nos. 8-11) *Fill in the blanks with the most appropriate option given against each question.*

8. Sapna ..... to dance every day.
   (a) loves (b) is loving
   (c) has been loving (d) has loved
9. This is one of the ..... novel I have ever read.
   (a) entertaining (b) more entertaining
   (c) most entertaining (d) very entertaining

10. Employees ..... attend the meeting in the office.
(a) may (b) can (c) must (d) shall

11. Swati jumped ..... the river to save her son.
(a) in (b) into
(c) within (d) on

Directions (Q. Nos. 12 and 13) *Mark the option with the correct spelling of the given words.*

12. (a) Orphanege (b) Orphannage
(c) Orphainage (d) Orphanage

13. (a) Caterpillar (b) Catrepillar
(c) Caterpilar (d) Catirpillar

Directions (Q. Nos. 14-15) *Choose the similar meaning word of the given word in the following questions.*

14. MASSIVE
(a) Strong (b) Little
(c) Gaping (d) Huge

15. DILIGENT
(a) Fool (b) Unhappy
(c) Hardworking (d) Disappointment

Section II Hindi

16. 'श्याम कल मुम्बई जाएगा' वाक्य में कौन-सा काल है?
(a) भूतकाल (b) भविष्यत् काल
(c) वर्तमान काल (d) उपरोक्त में से कोई नहीं

17. 'समुद्र अधिक गहरा है' इस वाक्य का शुद्ध रूप क्या है?
(a) समुद्र बड़ा गहरा है
(b) समुद्र अधिकांश गहरा है
(c) समुद्र बहुत गहरा है
(d) समुद्र की गहराई अधिक ज्यादा है

18. 'सजीव' का विलोम शब्द होगा
(a) निर्जीव (b) अजीव
(c) परजीव (d) इनमें से कोई नहीं

19. निम्न में द्वन्द्व समाज का उदाहरण नहीं है
(a) पाप-पुण्य (b) देश-विदेश
(c) धर्म-भ्रष्ट (d) राग-द्वेश

निर्देश (प्र. सं. 20-24) *दिए गए अनुच्छेद को ध्यानपूर्वक पढ़िए और उससे सम्बन्धित प्रश्नों के उत्तर दीजिए।*

सच्चे वीर अपने प्रेम के जोर से लोगों को सदा के लिए बाँध देते हैं। वीरता की अभिव्यक्ति कई प्रकार से कभी लड़ने-मरने से, खून बहाने से, तोप तलवार के सामने बलिदान करने से, तो कभी जीवन के गूढ़ तत्त्व और सत्य की तलाश में बुद्ध जैसे राजा विरक्त होकर वीर हो जाते हैं। वीरता एक प्रकार की अन्तः प्रेरणा है। जब कभी उसका विकास हुआ तभी एक रौनक, एक रंग, एक बहार संसार में छा गई। वीरता हमेशा निराली और नई होती है, वीरों को बनाने के कारखाने नहीं होते, वे तो देवदार के वृक्ष की भाँति जीवन रूपी वन में स्वयं पैदा होते हैं और बिना किसी के पानी दिए, बिना किसी के दूध पिलाए बढ़ते हैं। ''जीवन के केन्द्र में निवास करो और सत्य की चट्टान पर दृढ़ता से खड़े हो जाओ। बाहर की सतह छोड़कर जीवन के अन्दर की तहों मे पहुँचे तब नए रंग खिलेंगे।'' यही वीरता का सन्देश है।

20. वीरता कैसी प्रेरणा है?
(a) अन्तः (b) बाह्य
(c) फलित (d) उपरोक्त सभी

21. देवदार वृक्ष से किसकी तुलना की गई है
(a) खाने-पीने की (b) वीरों की
(c) मनुष्य की (d) वीरता की

22. निम्नलिखित में से कौन-सा रूप वीरता का नहीं है?
(a) क्रोध (b) युद्ध (c) त्याग (d) दान

23. वीरता का एक विशेष लक्षण है
(a) नयापन (b) नकल (c) हास्य (d) करुणा

24. 'विरक्त' का विलोम होगा
(a) विकल्प (b) रक्त (c) अनुरक्त (d) सशक्त

25. 'लोहे के चने चबाना' मुहावरे का अर्थ है।
(a) कठिन कार्य करना (b) अधिक परेशान करना
(c) चने चबाना (d) इनमें से कोई नहीं

26. 'अतिथि' का पर्यायवाची है
(a) भगवान (b) विकास (c) वसन (d) आगन्तुक

27. 'जिसके समान कोई दूसरा न हो' के लिए एक शब्द है
(a) अचल (b) अद्वितीय
(c) अनगिनत (d) अभिज्ञ

28. निम्न में कौन-सा शब्द शुद्ध है?
(a) अविषकार (b) आविषकार
(c) आविष्कार (d) अवनिषकार

29. 'रहीम' घर पर है में कौन-सा कारक है
(a) अपादान (b) अधिकरण (c) सम्प्रदान (d) करण

30. विशेषण जिस संज्ञा या सर्वनाम शब्द की विशेषता बताते हैं, उन्हें ..... कहते हैं।
(a) विशेष्य (b) गुणवाचक विशेषण
(c) संख्यावाचक विशेषण (d) परिमाणवाचक विशेषण

Section III Mathematics

31. The value of A and B, is

$$\begin{array}{r} 1\ A \\ \times\ B \\ \hline B\ 8 \end{array}$$

(a) 8 and 1 (b) 4 and 3
(c) 3 and 6 (d) 4 and 7

32. An exterior angle of a triangle is of measure 70° and one of the interior opposite angle is of measure 35°, then the measure of the other interior opposite angle.
(a) 70° (b) 35° (c) 45° (d) 25°

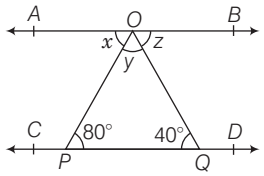
33. If the ratio between the curved surface area and the total surface area of a right circular cylinder is 1 : 3. Then, the ratio between the height and radius of the cylinder.
(a) 3:1 (b) 1 :3
(c) 2:1 (d) 1 : 2

34. The smallest number by which 256 must be multiplied to obtain a perfect cube, is
(a) 2 (b) 3
(c) 5 (d) 7

35. Expression of 24 million in standard form, is
(a) 2.4×10^8 (b) 2.4×10^9
(c) 2.4×10^7 (d) 2.4×10^{11}

36. The cost of $\frac{19}{4}$ m of wire is ₹ $\frac{171}{2}$, then find the cost of one metre of wire.
(a) ₹ 9 (b) ₹ 18
(c) ₹ 19 (d) ₹ 20

37. In the given figure, $AB \| CD$, then the value of $x : y : z$ is



(a) 2 : 3 : 4 (b) 3 : 4 : 2
(c) 4 : 3 : 2 (d) 2 : 4 : 3

38. The subtraction of $-3p^2 + 3pq + 3px$ from $3p\ (-p - a - r)$
(a) $3ap - 3pr + 3pq - 3px$ (b) $-3ap - 3pr - 3pq - 3px$
(c) $-3ap + 3pr - 3pq + 3px$ (d) $3ap + 3pr + 3pq + 3px$

39. By, selling an article for ₹ 112000, a girl gains 40%. Then, the cost price of the article.
(a) ₹ 112000 (b) ₹ 120000
(c) ₹ 80000 (d) ₹ 101200

40. A contractor estimates that 3 persons could rewire Jasminder's house in 4 days. If he uses 4 persons instead of three, how long should they take to complete the job ?
(a) 3 days (b) 4 days
(c) 5 days (d) 6 days

41. What number should be subtracted from each of the following numbers 23, 30, 57 and 78, so that the remainders are in proportion ?
(a) 6 (b) 8 (c) 10 (d) 12

42. The HCF of $5\ (x^3 + y^3)$ and $10(x^2 - y^2)$, is
(a) $(x + y)$ (b) $(x - y)$
(c) $5(x + y)$ (d) $5(x - y)$

43. The square root of 22 .09 is
(a) 2.7 (b) 4.7 (c) 5.7 (d) 6.7

Directions (Q. Nos. 44 and 45) *A group of 360 people were asked to vote for their favourite season from the three seasons rainy, winter and summer.*

Season	Number of votes
Summer	90
Rainy	120
Winter	150
Total	**360**

44. Which season got the most votes ?
(a) Summer
(b) Rainy
(c) Winter
(d) Both summer and winter

45. The central angle winter season's sector is
(a) 90° (b) 120° (c) 135° (d) 150°

46. If the sum of digits of a two-digit number is 17. On reversing its digits, the new number is 9 more than the original number, then the number, is
(a) 89 (b) 98 (c) 97 (d) 79

47. If the diameter of the Moon is approximately one-fourth of the diameter of the Earth, then the ratio of their surface areas is.
(a) 1 :16 (b) 16 :1
(c) 1 : 8 (d) 8 :1

48. If in a cricket match, a batswoman hits a boundary 6 times out of 30 balls she plays, then the probability that she did not hit a boundary, is
(a) $\frac{3}{5}$ (b) $\frac{4}{5}$ (c) $\frac{6}{5}$ (d) 1

49. If the area of trapezium is 450 m^2, the distance between two parallel sides is 10 m and one of the parallel side 15 m. Then the other parallel side, is
(a) 15 m (b) 90 m (c) 45 m (d) 75 m

50. The value of x, if $\frac{3x-5}{17}+\left[\frac{11-x}{76}-\frac{3}{4}\right]=\frac{4+x}{2}-13$, is
(a) 60 (b) 30 (c) 20 (d) 10

51. The least number which when divided by 14, 35 and 42 leaves remainder in each case , is
(a) 210 (b) 216 (c) 280 (d) 252

52. The value of $1+\frac{1}{1+\frac{1}{1+\frac{3}{6}}}$, is
(a) $\frac{20}{15}$ (b) $\frac{22}{15}$ (c) $\frac{24}{15}$ (d) $\frac{26}{15}$

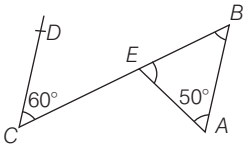
53. Two numbers are in the ratio of 3 : 5. If 8 is added to each number, then the ratio becomes 2 : 3 then, the largest number, is
(a) 16 (b) 24 (c) 40 (d) 42

54. The difference between compound interest and simple interest on ₹ 45000 at 12% per annum for 3 yr, is
(a) ₹ 2021 (b) ₹ 2021.76
(c) ₹ 2201 (d) ₹ 2201.76

55. Divide 400 into two parts such that $\frac{1}{3}$rd of the first part is 40 less than the other. Then, the smallest part, is
(a) 270 (b) 360
(c) 130 (d) 100

56. The value of $\left(\left(\frac{-3}{2}\right)^{-2}\right)^{-3}$, is
(a) $\left(\frac{2}{3}\right)^{6}$ (b) $\left(\frac{2}{3}\right)^{-6}$
(c) $\left(\frac{-2}{3}\right)^{6}$ (d) $\left(\frac{-2}{3}\right)^{-6}$

57. In the given figure, $AB \parallel CD$, $\angle EAB = 50°$. If $\angle ECD = 60°$, then find $\angle AEB$.



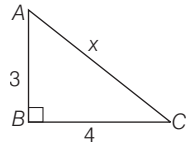
(a) 70° (b) 60° (c) 50° (d) 110°

58. The value of $\sqrt[3]{27}-7\sqrt[3]{216}+10\sqrt[6]{64}+\sqrt[2]{121}$, is
(a) 8 (b) 4 (c) −8 (d) −4

59. The value of $-\frac{3}{5}\times\left\{\frac{3}{7}+\left(\frac{-5}{6}\right)\right\}$, is
(a) $\frac{7}{10}$ (b) $\frac{54}{30}$ (c) $\frac{17}{70}$ (d) $\frac{1}{10}$

60. The value of $\frac{5^{-2}\times 3^{-3}\times (125)^{2/3}}{(27)^{-2/3}\times (32)^{-1/5}}$
(a) $\frac{3}{2}$ (b) $\frac{2}{3}$
(c) $\frac{1}{3}$ (d) 3

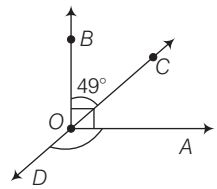
61. The value of x from the following figure, is



(a) 5 (b) 6
(c) 7 (d) 8

62. If one angle of a triangle is 60° and the other two angles are in the ratio 1 : 3. Then, the value of smallest angle, is
(a) 30° (b) 60°
(c) 90° (d) 100°

63. In the following figure, OB is perpendicular to OA and $\angle BOC = 49°$. Find $\angle AOD$



(a) 118° (b) 139°
(c) 151° (d) 110°

64. If the expression $(x^2 + 19x - 20)$ shows the area of rectangle, then the possible length and breadth of this rectangle.
(a) $(x+10), (x-1)$ (b) $(x+20), (x-1)$
(c) $(x+10), (x+1)$ (d) $(x+20), (x+1)$

65. The length of the side of a square, whose area is 729 m^2, is
(a) 17 m (b) 27 m
(c) 37 m (d) 47 m

Section IV General Science

66. A characteristic of sound that depends on the amplitude is
(a) pitch (b) speed
(c) quality (d) loudness

67. In order to reduce the loudness of a sound, we have to
(a) decrease its frequency of vibration of the sound
(b) increase its frequency of vibration of the sound
(c) decrease its amplitude of vibration of the sound
(d) increase its amplitude of vibration of the sound

68. The ultrasound waves can penetrate into matter to a large extent because they have
(a) very high frequency
(b) very high speed
(c) very high quality
(d) very high amplitude

69. Heat always flows
(a) from a colder object to a hotter object
(b) from a hotter object to a colder object
(c) in both the directions
(d) None of the above

70. In coastal areas, cold air flows in the day from sea to land. It is called ……
(a) sea strom (b) sea breeze
(c) tsunami (d) None of these

71. Heat capacity of a substance depends on
(a) the mass of the substance
(b) the temperature of the substance
(c) Both (a) and (b)
(d) Neither (a) nor (b)

72. A girl is sitting on a merry-go-round which is moving with a constant speed of 10 m/s. This means that the girl is
(a) at rest
(b) moving with no acceleration
(c) in accelerated motion
(d) moving with uniform velocity

73. The distance-time graph for a vehicle standing on a road side will be
(a) straight line inclined by some angle to x- axis
(b) straight line parallel to x- axis
(c) straight line parallel to y- axis
(d) None of the above

74. Motion of an ant is a example of
(a) rectilinear motion
(b) circular motion
(c) rotational motion
(d) periodic motion

75. The correct symbol to represent the speed of an object is
(a) 5 m/s (b) 5 mp
(c) $5m / s^{-1}$ (d) 5 s/m

76. Laws of reflection are valid in case of
(a) regular reflection
(b) irregular reflection
(c) reflection over a curved surface
(d) Both (a) and (c)

77. If lower half of a concave mirror is blackened, then
(a) image distance increases
(b) image distance decreases
(c) image intensity increases
(d) image intensity decreases

78. The material similar to silk in appearance is
(a) nylon (b) rayon
(c) polyester (d) terylene

79. Silkworms secrete fibre made of
(a) fat (b) cellulose (c) protein (d) nylon

80. The product(s) of combustion is/are
(a) only oxygen
(b) oxygen and water
(c) carbon dioxide and water
(d) only carbon dioxide

81. Hardest natural substance on earth is
(a) iron (b) plastic
(c) charcoal (d) diamond

82. Which of the following is not a combustible
(a) camphor (b) glass
(c) straw (d) alcohol

83. Which of the following is not a constituent of petroleum?
(a) Paraffin wax (b) Lubricating oil
(c) Petrol (d) Coke

84. Which of the following non-metals reacts and catches fire on exposure to air?
(a) Phosphorus (b) Nitrogen
(c) Sulphur (d) Hydrogen

85. Iron pillar near the Qutub Minar in Delhi is famous for the following facts. Which of these facts is responsible for its long stability?
(a) It is more than 7 m high
(b) It weighs about 6000 kg
(c) It was built more than 1600 years ago
(d) It has not rusted after such a long period

86. Which of the following reacts with cold water vigorously?
(a) Carbon (b) Sodium
(c) Magnesium (d) Sulphur

87. Coal is formed from the remains of
(a) vegetation only
(b) animals only
(c) Both vegetation and animals
(d) Neither vegetation nor animals

88. The metal which produces hydrogen gas on reaction with dilute hydrochloric acid as well as sodium hydroxide solution is
(a) copper (b) iron
(c) aluminium (d) sodium

89. Which of the following groups contains all synthetic substances?
(a) Nylon, terylene, wool
(b) Cotton, polycot, rayon
(c) PVC, polythene, bakelite
(d) Acrylic, silk, wool

90. The ovaries of different flowers may contain
(a) Only one ovule (b) many ovules
(c) one to many ovules (d) only two ovules

91. Pathogenic microorganisms present in host cells are killed by medicines called
(a) pain killer (b) antibodies
(c) antibiotics (d) vaccines

92. Which of the following reproduces only inside a host cell?
(a) Bacteria (b) Virus
(c) Amoeba (d) Fungus

93. A disease in human beings caused by virus is
(a) typhoid (b) influenza
(c) dysentery (d) cholera

94. Carrot and radish food obtained from plants are examples of
(a) stem (b) roots
(c) leaves (d) flowers

95. Diseases occurring due to the deficiency of one or other nutrients is called
(a) dietary disease
(b) chronic disease
(c) deficiency disease
(d) transmitted disease

96. Carbohydrates can be tested by using which of the following?
(a) Iodine
(b) Caustic soda
(c) Copper sulphate
(d) Fehling's solution

97. The bread or idli dough rises because of
(a) heat (b) grinding
(c) growth of yeast cells (d) kneading

98. Read the food items gives below.
(i) Wheat (ii) Ghee
(iii) Iodised salt (iv) Spinach (palak)
Which of the above food items are energy giving foods?
(a) (i)and (iv) (b) (ii) and (iv)
(c) (i) and (ii) (d) (iii) and (iv)

99. The male parts of the flower are called
(a) pistils (b) carpels
(c) stamens (d) styles

100. The swollen part at the base of a flower from which the whorls of the flower radiate is called the
(a) thalamus (b) pedicel
(c) pistil (d) carpel

Answers

1	*(a)*	2	*(b)*	3	*(a)*	4	*(c)*	5	*(d)*	6	*(c)*	7	*(c)*	8	*(a)*	9	*(c)*	10	*(c)*
11	*(b)*	12	*(d)*	13	*(a)*	14	*(d)*	15	*(c)*	16	*(b)*	17	*(c)*	18	*(a)*	19	*(c)*	20	*(a)*
21	*(b)*	22	*(a)*	23	*(a)*	24	*(c)*	25	*(a)*	26	*(d)*	27	*(b)*	28	*(c)*	29	*(b)*	30	*(a)*
31	*(a)*	32	*(b)*	33	*(d)*	34	*(a)*	35	*(c)*	36	*(b)*	37	*(c)*	38	*(b)*	39	*(c)*	40	*(a)*
41	*(a)*	42	*(c)*	43	*(b)*	44	*(c)*	45	*(d)*	46	*(a)*	47	*(a)*	48	*(b)*	49	*(d)*	50	*(b)*
51	*(b)*	52	*(c)*	53	*(c)*	54	*(b)*	55	*(c)*	56	*(d)*	57	*(a)*	58	*(c)*	59	*(c)*	60	*(b)*
61	*(a)*	62	*(a)*	63	*(b)*	64	*(b)*	65	*(b)*	66	*(d)*	67	*(c)*	68	*(a)*	69	*(b)*	70	*(b)*
71	*(c)*	72	*(c)*	73	*(b)*	74	*(a)*	75	*(a)*	76	*(d)*	77	*(d)*	78	*(b)*	79	*(c)*	80	*(c)*
81	*(d)*	82	*(b)*	83	*(d)*	84	*(a)*	85	*(d)*	86	*(b)*	87	*(a)*	88	*(c)*	89	*(d)*	90	*(c)*
91	*(c)*	92	*(b)*	93	*(b)*	94	*(b)*	95	*(c)*	96	*(a)*	97	*(c)*	98	*(a)*	99	*(c)*	100	*(a)*