

THE WINNING EDGE DEFENCE ACADEMY (WEDA)SAINIK

SCHOOL – 9th – MOCK – PAPER – 01

(ANSWERKEY)

Instructions

- This question paper contains 100 questions, which is divided into following three sections.
Section I English (50 Questions); **Section II** Social II Social Science (30 Questions) and **Section III** Hindi (20 Questions).
- Each question carries 1 Mark.
- The candidate is expected to attempt all the questions.

MATHEMATICS

- If z denotes a digit in the given number $789z45$, such that the number is divisible by 3, then what can be the value of z ?
 a) 0 b) 1 c) 2 d) 5
- Which of the following numbers is in standard form?
 a) $-125/25$ b) $-48/122$ c) $23/48$ d) $-27/48$
- $(2^3 + 6) : 4^2$ is same as
 a) $7 : 6$ b) $6 : 7$ c) $7 : 8$ d) $8 : 7$
- Find the value of X, Y and Z in the following and calculate the value of $X + Z - Y$.

$$\begin{array}{r} \text{X 6} \\ \text{X) } \underline{688} \\ \quad \underline{-6Y} \\ \quad \quad \text{Z 8} \\ \quad \quad \underline{-4X} \\ \quad \quad \quad \underline{0} \end{array}$$

- a) 12 b) 8 c) 6 d) 4
- Find the simplified form of $(x^2 - 3)(x + 3) + 9$.
 a) $-x(x^2 + 3x + 3)$ b) $-x(x^2 + 3x - 3)$ c) $x(x^2 + 3x - 3)$ d) $x(x^2 + 3x + 3)$
- The number of edges of triangular prism are:
 a) 5 b) 6 c) 9 d) 14

7. The mean consumption of petrol of a group of 20 cars is 65 litres. 2 other cars were added to the group with consumption as 89 litres and 85 litres, respectively. What is the new mean consumption for the group of cars?
- a) 68 b) 67 c) 69 d) 70
8. A dice is rolled and a coin is tossed. What is the probability of getting heads and an even number?
- a) $1/6$ b) $1/2$ c) $1/4$ d) $3/4$
9. What will be the value of $56^2 - 14^2$?
- a) 2940 b) 3200 c) 3670 d) 4520
10. What will be the value of $\frac{8^{3x} \times 2^{3x}}{8^{4x} \times 12}$
- a) $1/12$ b) $1/11$ c) $1/10$ d) $1/9$
11. A wall 8 m long, 6 m high and 22.5 cm thick is made up of bricks, each measuring 25 cm \times 11.25 cm \times 6 cm. Find the number of bricks required.
- a) 6000 b) 6200 c) 6400 d) 7200
12. Which of the following is a perfect cube?
- a) 216000 b) 62500 c) 2000 d) 172800
13. The simple interest on a certain sum of money for 4 years at 4% per annum is less than the compound interest on the same sum for 2 years at 10% per annum by Rs. 60. Find the sum.
- a) Rs. 1000 b) Rs. 1200 c) Rs. 1500 d) None of these
14. Johnny purchased 3 novels marked at Rs. 95 each, a Chemistry book marked at Rs. 180 and an Oxford dictionary marked at Rs. 470. He received Rs. 187 as a discount on the total marked price. Find the discount percentage.
- a) 20% b) 19.5% c) 19% d) 18.5%
15. If the selling price of an article is $4/3$ of its cost price, the percentage profit in the transaction is ____
- a) $39(1/3)\%$ b) $38(2/3)\%$ c) $33(1/3)\%$ d) None of these
16. A batch of troopers was in a camp for 1 month and 20 days from 1 June. There was enough food for 70 troopers, but 10 of them left after 20 day. How long will the food last, if they consume food at the same rate?
- a) 50 days b) 55 days c) 65 days d) 75 days
17. Mohak is travelling from one part of Toronto to another, which is 30 km away. He began his journey in a metro at the speed of 50 km/h and covered half of the distance. Then, he covered the rest of the distance in a local bus at a speed of 20 km/h. How much time did he take to reach from one part of Toronto to another?
- a) 0.45 hours b) 0.75 hours c) 1.05 hour d) 1.20 hours

18. What will be $p^2 + 1/p^2$, if $p - 1/p = 10$?
 a) 120 b) 56 c) 102 d) 12
19. What number should be added to $7/27$ to get $-17/27$?
 a) $-8/9$ b) $-7/9$ c) $-24/25$ d) $17/27$
20. $(16^{2.5}) : 4^5$ is the same as
 a) 1 : 2 b) 1 : 1 c) 2 : 1 d) 3 : 1
21. Find 2 consecutive even numbers such that one third of the larger exceeds one-fifth of the smaller by 2.
 a) 14, 16 b) 12, 14 c) 16, 18 d) 10, 12
22. How many 2-digit numbers are possible such that the sum of their digits is equal to twice the difference between the digits?
 a) 2 b) 3 c) 6 d) 11
23. If $0.48 + 1(8a + 3) = 0.96(0.5 + 9a)$, then a is equal to
 a) -0.46875 b) 4.6875 c) -0.046875 d) 0.46875
24. If the width of a rectangle is equal to the side of a square, find the area of the square when the diagonal of the rectangle is 15 cm and its length is 12 cm.
 a) 100 cm^2 b) 90 cm^2 c) 81 cm^2 d) 70 cm^2
25. A person has a rope and he wants to make a square from that rope. The square that he makes using the rope has an area of 225 m^2 . Find the length of the rope.
 a) 40 cm b) 25 cm c) 20 cm d) 60 cm
26. The perpendicular distance between the parallel sides of a trapezium is 15 cm. If the area of the trapezium is 495 cm^2 , then find the length of the larger of parallel sides, if they are in ratio of 6 : 5.
 a) 18 cm b) 24 cm c) 48 cm d) 36 cm
27. Directions: Study the given information carefully and answer the question that follows. The marks of 12 students in a class test are as follows. 61, 56, 49, 72, 75, 69, 56, 53, 68, 55, 58, 61 Find the median, if one of the students scored 96 marks, but the teacher entered it wrongly as 69.
 a) 59.5 b) 58.5 c) 57.5 d) 60.5
28. Which of the following least numbers must be added to 621 to make it a perfect cube?
 a) 1 b) 4 c) 5 d) 3
29. A person is filling fuel in the car. The tank of the car is in the form of a cylinder. If height of tank is 80 cm and diameter is 84 cm, then calculate the fuel that a person can fill in that car.
 a) 44.12 litres b) 443.52 litres c) 4435.20 litres d) 444.52 litres

42. What will be the value of $(z + 2)(z - 2)(z^2 - 4)$?

- a) $Z^4 - 2z^3 - 10z^2 - 4z - 16$ b) $Z^4 - 2z^3 - 6z^2 - 4z - 18$ c) $Z^4 - 8z + 16$ d) $Z^2 + 1$

43. A square pyramid consists of _____

- a) triangular faces and a square base b) triangular faces and 2 bases
c) square faces and a single base d) square faces and 2 bases

44. What is the value of $9x - 52 + x^2$?

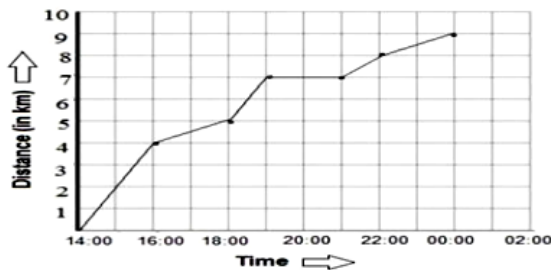
- a) $(x - 4)(x + 13)$ b) $(4 + x)(13 + x)$
c) $(4 + x)(13 - x)$ d) $(4 - x)(13 + x)$

45. If $(x + y + z) = 5$ and $xy + yz + xz = 8$, then what is the value of $x^2 + y^2 + z^2$?

- a) 6 b) 7 c) 8 d) 9

Directions for questions 46 to 50:

Directions: Refer to the graph and answer the following question.



This graph represents the daily schedule of a military personnel.

46. For how long was he having a rest and from what time to what time?

- a) 1.30 hr, from 19:00 to 21:00 b) 2 hr, from 19:00 to 21:00
c) 2.30 hr, from 19:00 to 21:30 d) 2 hr, from 20:00 to 22:00

47. How much is the total distance covered?

- a) 8 km b) 9 km c) 10 km d) 11 km

48. Find the average distance covered per hour.

- a) 1.11 km/hr b) 0.9 km/hr c) 0.5 km/hr d) 0.85 km/hr

49. What is the scale taken on the distance axis?

- a) 1.56 km b) 1 km c) 1 m d) 1.25 km

50. Maximum distance was covered during

- a) 14:00 to 16:00 b) 16:00 to 18:00 c) 18:00 to 20:00 d) 20:00 to 22:00

ANSWERS

1. A

Given that 789z45 is a multiple of 3.

So, $(7 + 8 + 9 + z + 4 + 5)$ is a multiple of 3 or $(z + 33)$ is a multiple of 3.

So, z could be 0, 3, 6 and 9.

From the options we can say z can be 0.

2. C

$\frac{23}{48}$ cannot be further simplified while the numbers in the remaining option can be simplified.

So, $\frac{23}{48}$ is in standard form.

3. C

$$2^3 + 6 : 4^2 = (8 + 6) : 4 = 14 : 16 = 7 : 8$$

4. B

5. C

6. C

The triangular prism has 9 edges.

7. B

Total consumption of petrol = Mean \times Number of cars

Total consumption of petrol of the original group = $65 \times 20 = 1300$ Total consumption of petrol of the

new group = Total consumption of petrol of the original group + Consumption of petrol of the 2 new cars = $1300 + 89 + 85 = 1474$

Number of cars in the new group = Number of cars in the original group + Number of cars from the new data

$$= 20 + 2 = 22$$

New average consumption = $1474/22 = 67$ litres.

8. C

9. A

We know $a - b = (a + b)(a - b)$ Here, $a = 56$ and $b = 14$ So, $56 - 14 \cdot 2 = (56 + 14)(56 - 14) = (70) \times (42) = 2940$.

10. A

11. C

12. A

216000 is a perfect cube because $216000 = 6 \times 6 \times 6 \times 10 \times 10 \times 10$, which means 216000 is a cube of 60.

13. B

14. A

Total marked price = $95 \times 3 + 180 + 470 = \text{Rs. } 935$ Discount amount (given) = Rs. 187 Let the discount offered be x%.

$$187 = (935 \times x) / 100$$

$$X = 20\%$$

15. C

16. B

1 month and 20 days = 50 days Number of troopers after 20 day = $70 - 10 = 60$

70 troopers and food for 50 days. One trooper had food for 70×50 days.

So, we have $70 \times 50 = 70 \times 20 + 60 \times x$ 70×30

$$= 60 \times x \quad x = 35$$

Total number of days food will last = $20 + 35 = 55$ days

17. C

As you know, time = Distance/Speed

Total time = Time in metro + Time in local bus By substituting the values in the formula, we get $(15/50) + (15/20)$ or, $0.30 + 0.75 = 1.05$ Mohak took 1.05 hours to finish his journey.

18. C

19. A

20. B

$$16^{2.5} : 4^5$$

We can write $16^{2.5}$ as $16^{(5/2)}$ i.e. square root of $16^5 = 4^5$ Required ratio = $4^5 : 4^5 = 1$ Or, ratio is 1 : 1

21. D

Let the consecutive even numbers be $2x$ and $2x + 2$. According to question,

$$(2x + 2) / 3 = 2x/5 + 2$$

$$10x + 10 = 6x + 30 \quad 4x = 20 \quad x = 5$$

So, the numbers are $2x = 2 \times 5 = 10$ and $2x + 2 = 2 \times 5 + 2 = 12$

22. C

Let xy be the number. $x + y = 2(x - y)$ or $x + y = 2(y - x)$ $x = 3y$ or $y = 3x$

So, different numbers are 31, 62,

93, 13, 26 and 39

Therefore, 6 different numbers are possible.

23. B

$$0.48 + 1(8a + 3) = 0.96(0.5 + 9a)$$

$$0.48 + 8a + 3 = 0.48 + 8.64a$$

$$8a - 8.64a = -3$$

$$-0.64a = -3$$

$$a = 4.687$$

24. C

25. D

26. D

Let us say length of parallel sides is $5x$ and $6x$. So, sum of length of parallel sides = $5x + 6x = 11x$ cm

Perpendicular distance between two sides = 15 cm Area (A) = 495 cm^2 Area of trapezium = $(1/2) \times$

(Sum of lengths of parallel sides) \times (Perpendicular distance between parallel sides)

So, $495 = (1/2) \times (11x) \times 15$ $165x = 990$ $x = 6$ So, parallel sides = $5x = 5 \times 6 = 30$ cm $6x = 6 \times 6 = 36$ cm

Larger side = 36 cm

27. A

The median is the middle of a sorted list of numbers. If we have 'n' terms, median when number of

observations is • Even: Average of $(n/2)$ term and $(n/2 + 1)$ term • Odd: $(n+1 / 2)$ term The correct

set of marks is 61, 56, 49, 72, 75, 96, 56, 53, 68, 55, 58, 61 (12 observations) If we arrange the marks

in ascending order, we get 49, 53, 55, 56, 56, 58, 61, 61, 68, 72, 75, 96 The median will be the

average of the 6 and 7 terms i.e. 58 and $61 = 59.5$.

28. B

Perfect square closer to $621 = 625$ Given number = 621 Therefore, least number must be added = 625

$$- 621 = 4.$$

29. B

30. D

Given number is 13718. $13718 = 2 \times 19 \times 19 \times 19$

Least number that should be divided from 13718 to get a perfect cube = 2.

31. C

32. C

Given: C paid Rs. 1,092. Let the sum paid by A be Rs. X.

Then, amount paid by B to A = Rs. 1.05X Amount paid by C to B = $1.04 \times 1.05X = \text{Rs. } 1,092$ X = Rs. 1,000.

33. B

34. C

Perimeter of each square tile = side \times number of sides $8 = \text{side} \times 4$ $8 \div 4 = \text{side}$

side = 2 m Area of each

tile = $\text{side}^2 = 2^2 = 4 \text{ m}^2$ Area of 96 tiles on the floor = $4 \times 96 = 384 \text{ m}^2$

35. D

Side of bigger cube = 5 m Side of smaller cube = 100 cm = 1 m

Then, number of small cubes = Volume of big cube/Volume of small cube = $(5 \times 5 \times 5)/(1 \times 1 \times 1) = 125$ cubes.

36. B

37. B

38. C

39. B

According to question, a cyclist started with a speed of 30 km/hr in a race and after every lap, he increased his speed by 5 km/h. So, $30 + 35 + 40 + 45 + 50 + 55 + 60 + 65 + 70 = 450 \text{ km}$ It means there are 9 laps in which he will cover 450 km.

40. C

Average of 21 results = 54 Total of 21 results = $54 \times 21 = 1134$

Average of the first 11 results = 51 Total of the first 11 results = $51 \times 11 = 561$

Average of the last 11 results = 57 Total of the last 11 results = $57 \times 11 = 627$

Therefore, 11 result = $561 + 627 - 1134 = 1188 - 1134 = 54$

41. B

42. C

43. A

A square pyramid has triangular faces and a square base.

44. A

$9x - 52 + x = x + 13x - 4x - 52 = x(x + 13) - 4(x + 13) = (x - 4)(x + 13)$

45. D

46. B

From the graph, it is clear that the military personnel was having a rest of two hours from 19:00 to 21:00.

47. B

From 14:00 - 16:00 = 4 km 16:00 - 18:00 = 1 km 18:00 - 20:00 = 2 km 20:00 - 22:00 = 1 km 22:00 - 00:00 = 1 km 00:00 - 02:00 = 0 km Total distance covered = $4 + 1 + 2 + 1 + 1 + 0 = 9 \text{ km}$.

48. B

From looking at the graph, its clear that total distance covered = 9 km Total time taken = 10 hours Average = Total Distance / Total Time = $9 / 10 = 0.9 \text{ km/hr}$.

49. B

From looking at the graph, its clear that 1 unit on distance axis = 1 km.

50. A

From looking at the graph, its clear that the time period in which the maximum distance was covered is 14:00 to 16:00.

ENGLISH LANGUAGE

51. The correctly punctuated sentence is:

- (a) The commander said, "Bravo ! You have regained our lost territory. You deserve to celebrate."
- (b) The commander said "Bravo, You have regained our lost territory. You deserve to celebrate."
- (c) The commander said "Bravo, You have regained our lost territory. You deserve to celebrate!"
- (d) The commander said "Bravo", You have regained our lost territory. You deserve to celebrate.

52. Which of the following will be the correct indirect speech if the statement given below is changed into it ? The teacher said to Karan, "Congratulations to you on your remarkable success in the entrance examination ! Wish you success in life."

- (a) The teacher congratulated Karan on his remarkable success in the entrance examination and said wish you success in life.
- (b) The teacher congratulated Karan on his remarkable success in the entrance examination and wished him success in life.
- (c) The teacher wished congratulations on his remarkable success in the entrance examination and success to Karan.
- (d) The teacher told Karan congratulations on his remarkable success in the entrance examination and wished him success in life.

53. The correct passive form of the following sentence is: Russian officials and lawmakers gave conflicting signals on exactly what areas they are annexing.

- (a) Conflicting signals are being given by the Russian officials and the lawmakers on exactly what areas are being annexed.
- (b) Conflicting signals were being given by the Russian officials and the lawmakers on exactly what areas were being annexed.
- (c) Conflicting signals were given by the Russian officials and the lawmakers on exactly what areas are being annexed.
- (d) Russian officials and lawmakers were given conflicting signals on exactly what areas they are annexing.

54. 'BY LEAPS AND BOUNDS' means

- a) very fast
- b) very slow
- c) in details
- d) aimlessly

55. Identify the part which contains an error in the following sentence. Even after requesting Ramesh, he did not tell us that how he solved the problem.

- a) Even after requesting Ramesh
- b) he did not tell us
- c) that how he
- d) solved the problem.

56. Fill in the blank with a suitable Phrase Preposition your letter of recommendation, we regret we cannot allow any further admission to our institution.

- (a) Owing to
(b) On account of
- (c) With reference to
(d) With regard to

57. The word that substitutes the following is: One who cannot be changed or reformed

- (a) Invulnerable
(b) Hardened
- (c) Incurable
(d) Incurable

58. The synonym of the word MIRACULOUS is:

- (a) Genuine
(b) Unbelievable
- (c) Credible
(d) Common

59. Adverb form of HARD is:

- (a) Hardening
(b) Hard
- (c) Hardly
(d) Hardingly

60. Choose the correct option if the given statement is changed into comparative degree. Field Marshal Manekshaw was the greatest military leader in India.

- (a) Field Marshal Manekshaw was one of the greatest military leaders in India.
(b) Field Marshal Manekshaw was greater than all the other military leaders in India.
(c) No other military leader in India was as great as Field Marshal Manekshaw.
(d) Field Marshal Manekshaw was greater than many other military leaders in India.

61. Choose the correct form of the verb given in the bracket. Field Marshal KM Cariappa (be) a source of inspiration for me since I was a young boy.

- a) was being b) will be c) is being d) has been

62. Choose the correct order to make the sentence below meaningful. the sun/not play/outside/is shining/too/brightly/so better 1 2 3 4 5 6 7

- (a) 1456723 (b) 7231456 (c) 1437256 (d) 3456721

63. The following sentence can be transformed as an assertive sentence as: How nice of him to help the poor!

- (a) It was very nice of him to help the poor. (b) It was how nice for him to help the poor.
(c) How nice of him is to help the poor. (d) It is nice to help the poor.

64. Choose the appropriate question tag: We won't be late,
- (a) Are we ? (c) Do we ?
(b) Will we ? (d) Won't we ?
65. Select the word that is OPPOSITE in meaning to the underlined word. His behaviour with people was always friendly.
- (a) Charming (c) Courteous
(b) Hostile (d) Sincere
66. Choose the noun that is always singular.
- (a) Furniture (c) Baby
(b) Knife (d) Tooth
67. "Tell me where you found those glasses." This is a/ankind of sentence.
- (a) Imperative (c) Interrogative
(b) Exclamatory (d) Declarative
68. Fill in the blank. Oh no! The building's lift has again!
- (a) broken down (c) broken in
(b) broken up (d) broken away
69. Choose the option in which the given word is correctly used. Stair
- (a) The spiral stair acts as a viewing platform.
(b) I stair absently at the pattern of the fabric on the seats.
(c) They showed that they can stair adversity in the face and still come out on top.
(d) Kamal could only muster up a blank stair at this point.
70. Fill in the blanks. He had heard there were many beavers in park.
- (a) No article
(b) A
(c) An
(d) The

Q. 71-75: Read the following passage and answer the questions that follow.

It was very hot in the court-room. Everybody was feeling sleepy. After a tiring morning, the clerks were anxious to get off to lunch. Even the judge seemed relieved when the last case came up before the court. A short middle-aged man with grey hair and small blue eyes was now standing before him. The man had a foolish expression on his face and he kept looking stupidly as if he was trying hard to understand what was going on. The man was accused of breaking into the house and stealing a cheap watch. The witness who was called did not give a very clear account of what had happened. He claimed to have seen the man outside the house one night, but on being questioned further, he confessed that he was not sure whether this was the man. The judge considered the matter for sometime and said that as there was no real proof, the man could not be found guilty of any crime. He said that the case was dismissed and then he rose to go. Meanwhile the accused looked very puzzled and said suddenly, "Excuse me, Sir, but do I have to give the watch back or not?"

71. When the last case came up, the judge felt relieved because:

- (a) it was lunch time
- (b) it had been a hot and tiring day
- (c) he was called by his wife
- (d) he had to go to visit his senior

72. A short middle-aged man was accused of:

- (a) punishing the court clerk
- (b) bribing the judge
- (c) breaking into the house
- (d) making loud noise in the court

73. The judge did not find the man guilty as:

- (a) there was no real proof against him
- (b) there was not anything written
- (c) there nobody was to cry against him
- (d) he was innocent-looking man

74. The man facing the trial was guilty because:

- (a) he had slapped the clerk
- (b) he had a knife in his hand
- (c) he was proved so
- (d) he had the watch in his possession

75. The word 'accused' here means:

- (a) forgave
- (b) the person laughing unknowingly
- (c) the person who is cunning
- (d) the person charged with a criminal case

GENERAL SCIENCE

76. What is the process by which plants synthesize their own food?

- a) Transpiration
- b) Evaporation
- c) Photosynthesis
- d) Precipitation

77. What term defines the cultivation of crop plants?

- a) Silviculture
- b) Agriculture
- c) Aquaculture
- d) Mariculture

78. In which period of the year are kharif crops cultivated?

- a) June to December
- b) November to April
- c) November to March
- d) June to September

79. Which of the following functions are performed by vitamin E?

- (i) Helps in blood clotting
- (ii) Keeps skin healthy
- (iii) Strengthens reproductive system
- (iv) Strengthens muscles

- a) (i) and (ii)
- b) (ii) and (iii)
- c) (iii) and (iv)
- d) (ii) and (iv)

80. The deficiency of which of the following vitamins causes muscle wasting, stunted growth and nervous disorder?

- a) Vitamin B1
- b) Vitamin A
- c) Vitamin D
- d) Vitamin B2

81. A porter pushes a box lying on a platform towards the East. In which direction does the force of friction act on the box?

- a) North
- b) East
- c) West
- d) South

82. Which of the following statements is true?

- a) Force of friction is the same for all surfaces.
- b) Smoothing of a surface does not affect the distance traveled by a freely moving body over it.
- c) Friction is caused by the irregularities on the two surfaces in contact.
- d) The number of irregularities on a rough surface and a smooth surface are the same.

83. A body of mass M just begins to move under the continuous application of a force F on a horizontal surface. If the force is continuously being applied, then what can you say about the speed with which the body is moving?

- a) It does not change.
- b) It continuously increases.
- c) It continuously decreases.
- d) Nothing can be said.

84. The statement incorrect regarding poles of magnet is

- a) like poles repel each other while unlike poles attract each other.
- b) a magnet has two poles where its electric properties are concentrated.
- c) The north pole of a freely suspended magnet always points towards the north.
- d) All the statements given are true

85. An electromagnet is a coil

- a) with a soft copper core
- b) with a soft iron core
- c) with a hard copper core
- d) with a hard iron core

86. The strength of an electromagnet depends upon the

- a) Number of turns per unit length
- b) The current flowing through electromagnet
- c) The material at the core of the electromagnet
- d) All of these

87. When an object is placed at $2f$ of convex lens, What is the nature and position of image formed?

- a) At $2f$, real, magnified, erect
- b) At $3f$, real, magnified, erect
- c) At $2f$, real, same size, inverted
- d) At f , real, magnified, inverted

88. When an object is placed between $2f$ and f , Where is the image of the object formed and find the nature of image formed.

- a) Beyond $2f$, real and erect
- b) Beyond $2f$, real and inverted

- c) At infinity, real, magnified, inverted
- d) None of these

89. Which of the following is not true regarding rules of refraction?

- a) Light bends away from the normal while traveling from an optically denser to a rarer medium.
- b) Light bends while traveling from one medium to another only if it is incident on the boundary at an angle to the normal.
- c) Light does not bend if it is incident perpendicular to the boundary or along the normal.
- d) All are correct.

90. Amoeba can move very fast by which of the following locomotory organs?

- a) Cilia
- b) Villi
- c) Flagella
- d) Pseudopodia

91. Which of the following organisms is not unicellular?

- a) Amoeba
- b) Paramecium
- c) Fungus
- d) Bacteria

92. Amoeba engulfs food from environment by which method?

- a) Diffusion
- b) Osmosis
- c) Endocytosis
- d) Plasmolysis

93. Animal cells do not have

- a) plastids
- b) cell wall
- c) large vacuoles
- d) All of the above

94. Identify the correct statement.

- a) Animal cells have cell wall.
- b) Ribosomes generate proteins.
- c) Mitochondrion is known as storehouse of the cell.
- d) Endoplasmic reticulum is known for storing genetic information.

95. Which of the following statements is not true for nucleus?

- a) Nucleus stores genetic information like DNA, RNA
- b) Nucleus contains chromatin threads.
- c) Nucleus is lined by nuclear membrane.

d) Nucleolus of a nucleus is equivalent to the cytoplasm of a cell.

96. What is the process of heating wood/coal in absence of air known as?

- a) Distillation
- b) Combustion
- c) Destructive distillation
- d) Burning

97. What is C - C bond length in graphite?

- a) 130 pm
- b) 142 pm
- c) 130 nm
- d) 142 nm

98. Due to which of the following reasons is graphite a good conductor of electricity?

- a) It has free electrons.
- b) It is slippery in nature.
- c) It is soft.
- d) All of the above.

99. Which of the following properties of aluminium makes it useful to make parts ofairplanes?

- a) Hard and high density
- b) Hard and low density
- c) Ductile and high density
- d) Malleable and soft

100. Statement I: Nowadays, instead of copper, aluminium is used to make electrical wires.Statement II: Aluminium is cheaper than copper, that's why it is a good substitute of copper.

- a) Both statements I and II are correct and statement II is the correct explanation of I.
- b) Both statements I and II are correct and statement II is not the correct explanation of I.
- c) Only statement I is correct.
- d) Both statements I and II are incorrect.

SOCIAL SCIENCE

101. Who led the East India Company's army against Sirajuddaulah at Plassey?

- (a) Hector Munroe
- (b) Curzon
- (c) Clive
- (d) Cornwallis

102. When was the last Anglo-Mysore War fought?

- (a) 1599
- (b) 1699
- (c) 1799
- (d) 1899

103. Which age group of India is guaranteed free and compulsory education by the Constitution?

- (a) 6-14 years
- (b) 5-14 years
- (c) 7-15 years
- (d) 6-15 years

104. Which of the following is NOT an abiotic resource?

- (a) Soil
- (b) Rocks
- (c) Plants
- (d) Minerals

105. Which of the following methods is most appropriate to check soil erosion on steep slopes?

- (a) Shelter belts
- (b) Terrace farming
- (c) Mulching
- (d) Contour barriers

106. The existence of more than one level of government in a country is known as

- (a) Secularism
- (b) Communism
- (c) Bicameralism
- (d) Federalism

107. The area from where people elect their representative to a legislative body is called

- (a) Constituency
- (b) Democracy
- (c) Piracy
- (d) Aristocracy

108. Which of the following terms refers to a peasant?

- (a) Mahal
- (b) Ryot
- (c) Nij
- (d) Ryoti

109. Which of the following methods of sowing seeds is used in jhum cultivation?

- (a) Dibbling
- (b) Drilling
- (c) Transplanting
- (d) Broadcasting

110. Petroleum and natural gas are found in which of the following types of rocks?

- (a) Igneous
- (b) Sedimentary
- (c) Metamorphic
- (d) Basalt

111. Which of the following is a conventional source of energy?

- (a) Solar
- (b) Wind
- (c) Thermal
- (d) Geothermal

112. Cultivation of grapes is known as

- (a) Viticulture
- (b) Sericulture

- (c) Pisciculture
- (d) Horticulture

113. Which house functions primarily as the representative of the states of India in the Parliament?

- (a) Lok Sabha
- (b) Rajya Sabha

- (c) Vidhan Sabha
- (d) Vidhan Parishad

114. Who represents the interests of the state in a court case?

- (a) Director General
- (b) Public Prosecutor of Police

- (c) Sessions Judge
- (d) Civil judge

115. Who among the following was hanged to death on 8th April 1857 for attacking his officers in Barrackpore?

- (a) Nana Saheb
- (b) Rani Laxmibai

- (c) Tantia Tope
- (d) Mangal Pandey

116. Tipu Sultan's famous sword was made up of

- (a) Iron
- (b) Wootz steel

- (c) Copper
- (d) Stainless steel

117. Who among the following was responsible for the promotion of English education in India?

- (a) William Jones
- (b) James Mill

- (c) Thomas Macaulay
- (d) A.O. Humes

118. Which of the following activities falls in the Tertiary Sector?

- (a) Cultivation of food crops
- (b) Making sugar from sugarcane

- (c) Teaching in a school
- (d) Production of agricultural equipments

119. Emigrants are the people who

- (a) leave a country
- (b) arrive in a country

- (c) migrate to the US
- (d) none of the above

120. The Scheduled Castes and Scheduled Tribes (Prevention of Atrocities) Act was passed in

- (a) 1987
- (b) 1988

- (c) 1989
- (d) 1990

121. An independent judiciary in India ensures protection

- (a) to the executive
- (b) of the Fundamental Rights of the people

- (c) to the government
- (d) to the rich and powerful

122. In 1764, the spinning jenny was invented by

- (a) Richard Arkwright
- (b) John Kaye

- (c) James Watt
- (d) R.L. Stevenson

123. The book 'Stripurushtulna' was written by

- (a) Tarabai Shinde
- (b) Pandita Ramabai

- (c) Mumtaz Ali
- (d) Sarojini Naidu

124. Which of the following companies was Responsible for the Bhopal gas tragedy of 1984

- (a) Bayer Crop Science
- (b) Nufarm

- (c) Union Carbide
- (d) Syngenta Chemicals

125. Which of the following is NOT a factor of soil formation?

(a) Time

(c) Soil Texture

(b) Climate

(d) Organic matter

The Winning Edge

INTELLIGENCE

126. Directions: The question contains a pair of CAPITALISED words followed by five pairs of words. Choose the pair of words which best expresses the relationship similar to that expressed in the capitalized pair. BEGINNING : ENDING
- a) Symphony : Movement
b) Preface : Afterword
c) Introduction : Foreword
d) Prologue: Intermission
127. Directions: In the following question, there is a relationship between the two terms to the left of : and the same relationship holds between the two terms to its right, of which one term is missing. Identify the correct option. ACF : GIL : : PRU : ____?
- a) VYA
b) VXZ
c) VXA
d) VAB
128. Directions : In the following question, there is a relationship between the two terms to the left of : and the same relationship holds between the two terms to its right, of which one term is missing. One of the four given options contains the missing term. Identify the correct option. MNO : RQP : : WXY : ____?
- a) ZAB
b) BAZ
c) ZBA
d) BZ
129. Directions : In the following question, there is some relationship between the two groups on the left of : : and the same relationship exists between the two groups on its right. Find the missing group. PALE : LEAP : : POSH : ____?
- a) HSOP
b) POHS
c) SHOP
d) HOPS
130. Directions: In this question, the two terms given to the left of the sign (: :) bear a certain relationship to each other. The same relationship exists between the two terms to its right, out of which one is missing. Identify the relationship and find the missing term. 42 : 56 : : 110 : ____?
- a) 18
b) 132
c) 136
d) 140
131. Directions: There is some relationship between the two pairs of numbers on the left of the sign (: :). The same relationship exists between the two terms on the right, of which one is missing. Find the missing one from the given alternatives. 144 : 72 : : 198 : ____?
- a) 200
b) 199
c) 100
d) 99
132. Directions: In the following question, a series is given with one or two terms missing. Choose the correct alternative from the given options that will complete the series. I2, K3, M5, O7, Q11, _____
- a) R12
b) S13
c) T15
d) S17

133. Directions: In the following question, a series is given with one or two terms missing. Choose the correct alternative from the given options that will complete the series. 6, 9, 18, 21, 42, 45, _____

- a) 80
- b) 87
- c) 90
- d) 93

134. Directions: In the following question, a series is given with one or two terms missing. Choose the correct alternative from the given options that will complete the series. 3, 7, 16, 35, _____

- a) 44
- b) 54
- c) 64
- d) 74

135. Directions: Choose the correct alternative that will continue the same pattern in the given series. 17, 13, 11, 7, 5, 1, _____

- a) -3
- b) 1
- c) 0
- d) -1

136. Directions: Choose the letter which when placed at the sign of interrogation (?) would complete the matrix.

- a) W
- b) O
- c) K
- d) Z

Z	W	S
R	O	?
J	G	C

137. Directions: Choose the letter which when placed at the sign of interrogation (?) would complete the matrix.

- a) T
- b) P
- c) N
- d) L

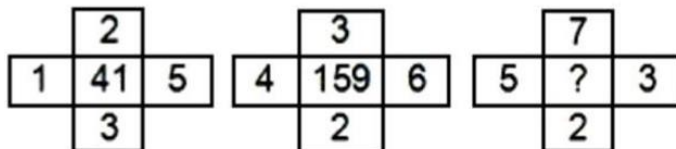
H	K	Q
C	G	O
E	J	?

138. Which letter will replace the question mark (?) and complete the matrix?

- a) P
- b) R
- c) Q
- d) T

A	E	D
I	V	M
G	?	K

139. What number should come in place of the question mark to complete the third figure?



- a) 189
- b) 227
- c) 77
- d) 339

140. A is standing at 6 position and B is standing at 16 position from the right end of a row. How many people are standing between A and B?

- a) 8
- b) 9
- c) 10
- d) 11

141. A policeman left his police post and proceeded 4 km towards South, after hearing a loud sound from a point A. On reaching point A, he heard another sound and proceeded 4 km to the left to reach another point B. From point B, he proceeded left to reach a point 4 km away. In which direction should he go to reach his police post?

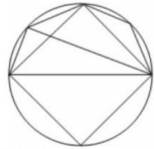
- a) North
- b) East
- c) South
- d) West

142. Seven is added to a certain number. The sum is multiplied by 5, the product is divided by 9 and 3 is subtracted from the quotient. The remainder left is 12. What is the number?

- a) 20
- b) 30
- c) 40
- d) 50

143. How many triangles are there in the following figure?

- a) 8
- b) 10
- c) 11
- d) 12



144. Directions: In the following question, four figures are given. Three of them are similar in some way, but one figure is unlike the other three. Select the figure which does not belong to the group.



- a) A
- b) B
- c) C
- d) D

145. Directions: In the following question, arrange the given words in the sequence in which they occur in the dictionary and then choose the correct sequence. 1. Wound 2. Writer 3. Whiter 4. Worst 5.

Worked

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

146. In a certain coding system, 'PAGES' is coded as 23719 and 'GUEST' is coded as 75196. How will you code 'STAGE' in this coding system?

- a) 96351
- b) 92671

c) 96371

d) 96731

147. If 2 August of a year is Tuesday, then what would be the day on 2 August after 3 years?

a) Friday

c) Sunday

b) Saturday

d) Cannot be determined

148. From the given words, select the one which cannot be formed using the letters of the given word.

FAMISHED

a) SHADE

c) MASHED

b) MEDIAS

d) AMUSED

149. Which of the following four interchanges in signs would make the given equation correct?

$$3 + 5 - 2 = 4$$

a) + and -, 2 and 3

c) + and -, 3 and 5

b) + and -, 2 and 5

d) None of these

150. If + stands for \times , - for \div , \times for - and \div for +, then find the value of $26 + 74 - 4 \times 5 \div 2$.

a) 220

b) 376

c) 478

d) 488

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