

**Grade 9**

**Quantity : 700**

**SARVHITKARI PARKASHAN SOCIETY**  
**SELECTION TEST**  
**FOR**  
**PUNJAB SUPER 100**

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**INSTRUCTIONS :**

1. This test is for students who are presently in grade 10.
2. This test has 3 sections. First section consists of 30 questions from English and Reasoning. Second section consists of 30 questions from Mathematics and last section consists of 30 questions from Science.
3. Each right answer has 2 marks.
4. Each wrong answer will lead to deduct 1 mark from total marks obtained.
5. Mark your responses with blue ball pen in the OMR sheet provided along with this question paper.
6. Attempt all questions accordingly.



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**ENGLISH AND REASONING****Q. 1-30**

1. **Choose the correct meaning of the prefix “up”.**  
 a) up or upward    b) inclined to    c) relating to    d) with, together
2. **What is the noun in capital letters? The boys’ uniforms include TIES.**  
 a) Singular    b) Plural    c) No noun    d) Wrong question
3. **Identify all the pronouns in the following sentence. They ran to the store to buy us some candy.**  
 a) ran, they, us    b) They, us  
 c) They, store, candy    d) None of the above
4. **Cosby laughed at himself as \_\_\_\_\_ athlete.**  
 a) an    b) the    c) a    d) am
5. **Is the pronoun a subject or object pronoun ? Mom took us to the festival.**  
 a) Subject pronoun    b) Object pronoun  
 c) Adjective pronoun    d) None of the above
6. **What is the word in capital letters? Therefore, bats are GOOD for humans because they eliminate harmful insects.**  
 a) Noun    b) Pronoun    c) Adjective    d) Proverb
7. **Select the correct tense. The Russian people want a democratic system.**  
 a) Simple present    b) Simple past    c) Simple future    d) Present perfect
8. **What does micro stands for ?**  
 a) Write    b) Speak    c) Big    d) Small
9. **These rare books \_\_\_\_ leather covers.**  
 a) mention    b) speak    c) have    d) has
10. **Choose the option that correctly uses the apostrophe to show a plural possessive. The favorite spot in the house was the pantry.**  
 a) mices’    b) mices    c) mice’s    d) ‘mices
11. **What is the capitalized word used in the sentence? Space probes’ photographs were a SURPRISE to scientists.**  
 a) Noun    b) Verb    c) Proverb    d) Adjective

12. **Few \_\_\_ present at the rally to re-elect Clinton.**  
a) was                      b) am                      c) were                      d) None of the above
13. **What type of pronoun is the capitalized word? HE has studied kung fu for years.**  
a) Subject pronoun                      b) Object pronoun  
c) Adjective pronoun                      d) None of the above
14. **Complete the series; 36, 18, 9, 3, \_\_\_.**  
a) 9                      b) 18                      c) 1                      d) 36
15. **What is the tense of the verb ? The karate class will meet promptly at three.**  
a) Present                      b) Past                      c) Future                      d) None of the above
16. **Find the sentence that has an intransitive verb.**  
a) She sadly watched her mirror break  
b) The boys skipped rocks across the pond  
c) Lexi, the tallest, is the fastest  
d) The pond grew more and more shallow
17. **Identify the capitalized part. Once school starts, YOU NEED TO PASS TO GET INTO YOUR CLASS.**  
a) Independent                      b) Dependent  
c) Interdependent                      d) None of the above
18. **The materials needed for the construction \_\_\_ as we gain experience.**  
a) decreases                      b) decrease                      c) decreased                      d) None of the above
19. **Identify the capitalized part. If I had hit the ball five more feet, IT WOULD HAVE BEEN A HOME RUN.**  
a) Independent                      b) Dependent  
c) Interdependent                      d) None of the above
20. **Which of these combines the following sentences correctly ? Stacey likes math. Stacey likes art.**  
a) Stacey likes math but art.                      b) Stacey likes math or art.  
c) Stacey likes math and art.                      d) Stacey likes math not art.
21. **Which of the following is not a correct usage of the colon?**  
a) To Whom It May Concern:                      b) Austin: Texas  
c) Genesis 2:1                      d) 3:15 pm

22. Sandra has a lot of \_\_\_\_\_ on her farm, and they are very loud.  
a) geeses                      b) geoses                      c) geese                      d) goose
23. Identify the adjective in the following sentence; The police gave Tom a citation for his brave rescue.  
a) police                      b) gave                      c) brave                      d) rescue
24. Select the correct personal pronoun. After swimming for hours, \_\_\_\_\_ was very tired.  
a) we                      b) him                      c) they                      d) she
25. Identify the adverb in the following sentence. Reece has almost finished his guitar practice.  
a) Reece                      b) finished                      c) his                      d) almost
26. Choose the correct form of the adverb in the parentheses. I arrived at the game (later, latest, lates) than you.  
a) later                      b) latest                      c) lates                      d) None of the above
27. Select the complete predicate. Ganesh and his friends sang loudly.  
a) sang loudly                      b) Ganesh  
c) and his friends sang loudly                      d) and his friends
28. Choose the best word to fill in the blank. Do \_\_\_\_\_ like cold weather ?  
a) Shark                      b) Penguins                      c) our                      d) None
29. Mustafa is the father of Gulfam. Gulfam is the husband of Ramina. Ramina's mother is Sonia. Sonia is the sister of Gulfam. How Ramina is related to Mustafa?  
a) Paternal grandfather                      b) Grandfather  
c) Maternal grandfather                      d) Brother
30. The sun is much bigger than any of the planets.  
a) Simple subject                      b) Complete subject  
c) Simple predicate                      d) Complete predicate

**MATHEMATICS****Q. 31-60**

- 31. Find the area of a triangle two sides of which are 18 cm and 10 cm and the perimeter is 42 cm.**  
 a)  $21\sqrt{10}$  cm<sup>2</sup>      b)  $21\sqrt{11}$  cm<sup>2</sup>      c)  $20\sqrt{11}$  cm<sup>2</sup>      d)  $22\sqrt{11}$  cm<sup>2</sup>
- 32. Factorize :  $4x^2 + 9y^2 + 16z^2 + 12xy - 24yz - 16xz$ .**  
 a)  $(2x + 3y - 4z)(2x + 3y - 4z)$       b)  $(2x + 3y - 4z)(2x + 3y - z)$   
 c)  $(2x + 3y - 4z)(x + 3y - 4z)$       d)  $(x + y - 4z)(2x + 3y - 4z)$
- 33. Which of the values; i. 9, ii. -9, iii. 5, iv. -5 can be the solution for equation  $x - x^{-1} = ?$  Given  $x^2 + x^{-2} = 27$ .**  
 a) i and ii      b) ii and iii      c) iii and iv      d) i and iv
- 34. Simplify the equation;  $(x - x^{-1})(x + x^{-1})(x^2 + x^{-2})(x^4 + x^{-4})$ .**  
 a)  $x^4 - x^{-4}$       b)  $x^6 - x^{-6}$       c)  $x^8 - x^{-8}$       d) None of these
- 35. If the volume of a cuboid is given by the polynomial  $x^3 - 19x - 30$ , then it's possible dimensions are :**  
 a)  $x - 2, x + 3$  and  $x - 5$       b)  $x + 2, x + 3$  and  $x - 5$   
 c)  $x - 4, x + 3$  and  $x + 5$       d)  $x + 5, x - 3$  and  $x + 7$
- 36. Which of the statements are true? i. 0 is a natural number, ii. For any 2 natural numbers  $a < b$ , there is always a natural number  $c$  such that  $(a + c) > b$ , iii. For any 2 natural numbers  $a < b$ , there is always a natural number  $c$  such that  $(a \times c) > b$ .**  
 a) i and ii      b) i and iii      c) ii and iii      d) i, ii and iii
- 37. Which of the following are prime numbers ? i. 191, ii. 193, iii. 195, iv. 197.**  
 a) i and ii      b) ii and iv      c) i, iii and iv      d) i, ii and iv
- 38. What is the decimal form of  $1/13$  ?**  
 a) 0.076921      b) 0.076923      c) 0.076925      d) None of these
- 39. If  $g$  is given by  $g = t^{2/3} + 4t^{-1/2}$ , what is the value of  $g$  when  $t = 64$  ?**  
 a)  $31/2$       b)  $33/2$       c) 16      d)  $257/16$
- 40. What is the value of  $m$  if  $[(7^{-2})^{-2}]^{-1/3}]^{1/4} = 7m$  ?**  
 a)  $-3^{-1}$       b)  $4^{-1}$       c) -3      d) 2
- 41. I have ₹ 300 in coins of denomination ₹ 1, ₹ 2 and ₹ 5. The number of ₹ 2 coins is 3 times the number of ₹ 5 coins. The total number of coins is 160. How many coins of each denomination are with me ?**  
 a) 30, 60, 80      b) 30, 70, 80      c) 30, 20, 90      d) 20, 60, 80

42. Amina thinks of a number and subtracts  $\frac{5}{2}$  from it. She multiplies the result by 8. The result now obtained is 3 times the same number she thought of. What is the number?

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

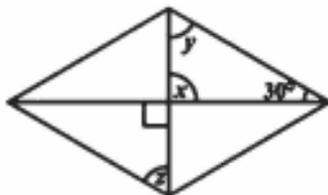
43. There is a narrow rectangular plot, reserved for a school, in Mahuli village. The length and breadth of the plot are in the ratio 11:4. At the rate ₹ 100 per metre it will cost the village panchayat ₹ 75000 to fence the plot. What are the dimensions of the plot ?

- a) 375, 200              b) 350, 400              c) 275, 100              d) None of these

44. How many sides does a regular polygon have if the measure of an exterior angle is  $24^\circ$  ?

- a) 20                      b) 10                      c) 15                      d) 17

45. Find  $x$ ,  $y$  and  $z$  in given parallelogram



- a)  $60^\circ, 90^\circ, 90^\circ$     b)  $90^\circ, 60^\circ, 75^\circ$     c)  $90^\circ, 60^\circ, 60^\circ$     d) None of the above

46. A football team won 10 matches out of the total number of matches they played. If their win percentage was 40, then how many matches did they play in all?

- a) 25                      b) 50                      c) 35                      d) 15

47. If 60% people in city like cricket, 30% like football and the remaining like other games, then what per cent of the people like other games ? If the total number of people are 50 lakh, find the exact number who like each type of game.

- a) 30, 15, 5              b) 22, 17, 27              c) 35, 28, 25              d) 28, 4, 7

48. The cost of an article was ₹ 15,500. ₹ 450 were spent on its repairs. If it is sold for a profit of 15%, find the selling price of the article.

- a) 17445.50              b) 16170.56              c) 15290.45              d) 18342.50

49. The price of a TV is ₹ 13,000. The sales tax charged on it is at the rate of 12%. Find the amount that Vinod will have to pay if he buys it.

- a) 15550                      b) 16430                      c) 13750                      d) 14560

50. Subtract

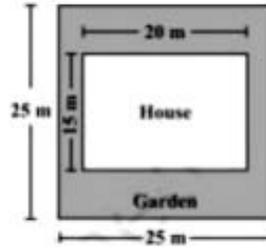
$4(p^2)q - 3pq + 5pq^2 - 8p + 7q - 10$  from  $18 - 3p - 11q + 5pq - 2pq^2 + 5(p^2)q$ .

- a)  $28 + 5p - 18q + 8pq - 7p(q^2) + (p^2)q$     b)  $28 + 5q - 18q + 8pq - 7pq^2 + pq$   
 c)  $28 + 5p - 18q + 8pq - 7q^2 + p^2$               d)  $28p + 5 - 18q + 8pq - 7pq^2 + (p^2)q$

51. A flooring tile has the shape of a parallelogram whose base is 24 cm and the corresponding height is 10 cm. How many such tiles are required to cover a floor of area 1080 m<sup>2</sup>? [Tiles can be split].

a) 45000                      b) 25000                      c) 44000                      d) 15000

52. Mrs. Kaushik has a square plot with the measurement as shown in the figure. She wants to construct a house in the middle of the plot. A garden is developed around the house. Find the total cost of developing a garden around the house at the rate of ₹ 55 per m<sup>2</sup>.



a) 17872                      b) 16750                      c) 17875                      d) 19650

53. Solve :  $(1/2)^{-2} + (1/3)^{-2} + (1/4)^{-2}$ .

a) 28                              b) 27                              c) 31                              d) 29

54. Find the value of m if  $5^m \div 5^{-3} = 5^5$ .

a) 3                                b) 4                                c) 2                                d) 5

55. Solve :  $(x + y)(2x + y) + (x + 2y)(x - y)$ .

a)  $3x^2 + 4xy - y^2$     b)  $3x^2 + 4x - y^2$     c)  $3x^2 + 4xy - y$     d)  $x^2 + 4xy - y^2$

56. P sold an article at 20% profit to Q. Q sold it at 10% profit to R. The profit made by Q was ₹ 24 less than the profit made by P. Find the cost price of the article for P in (₹).

a) 250                              b) 300                              c) 360                              d) 290

57. X works four times as fast as Y. Y takes 60 days more than X to complete a job. Find the time in which X and Y working together can complete the job (in days).

a) 20                                b) 10                                c) 16                                d) 12

58. The GCD of two numbers is 4 and their LCM is 400. How many pairs of values can the numbers assume ?

a) 1                                b) 2                                c) 3                                d) 4

59. The ratio of girls and boys in a class is 1 : 3. Set up an equation between the students of a class and boys

a)  $2x + 2y - 5 = 0$     b)  $5x + 2y = 7$     c)  $0x + 2y - 3 = 0$     d)  $3x - y = 0$

60. Fahrenheit to Celsius conversion linear equation is  $F = (9/5)C + 32$ . If temperature in Celsius is 0 degree, what is the temperature in Fahrenheit ?

a) 32 F                              b) 31 F                              c) 30 F                              d) 34 F

**SCIENCE****Q. 61-90**

- 61. Which of the following forces is the strongest ?**  
a) Gravitational    b) Electrostatic    c) Nuclear    d) Magnetic
- 62. Number of electrons in the outermost shell of aluminum.**  
a) 1    b) 2    c) 3    d) 4
- 63. The direction of magnetic field inside a bar magnet is\_\_\_\_\_.**  
a) N to S    b) S to N    c) E to W    d) Can't decide
- 64. A ball thrown upwards with a speed of 10 m/s reaches the highest point in how much time in second ?**  
a) 1    b) 2    c) 3    d) 4
- 65. Muscular force is also called \_\_\_\_\_ force.**  
a) non-contact    b) contact    c) gravitational    d) magnetic
- 66. A body of mass 2 kg moving with a speed of 4 m/s, comes to rest in half second. Find the force experienced by the body ?**  
a) 4 N    b) 8 N    c) 12 N    d) 16 N
- 67. 1 kgf is equal to\_\_\_\_\_.**  
a) 98 N    b) 9.8 N    c) 0.98 N    d) 0.098 N
- 68. When two forces act in opposite directions, then net force acting is\_\_\_\_\_.**  
a) sum of magnitudes of two forces  
b) difference between magnitudes of two forces  
c) Both of these    d) None of these
- 69. Which of the following is not a chemical test for carbon dioxide?**  
a) Colorless and odorless gas    b) Turns moist litmus paper blue to red  
c) Burns with pop sound    d) Turns lime water milky
- 70. State of motion is described by**  
a) position of rest    b) position of motion  
c) Both by the state of rest or motion    d) None of these
- 71. Magnesium burns to form**  
a) magnesium hydroxide    b) magnesium oxide  
c) magnesium carbonate    d) magnesium sulphate

72. **Name the chemical process in which a substance reacts with oxygen to give out heat.**  
a) Reaction      b) Junction      c) Combustion      d) All of these
73. **Ammonia gas burns in presence of oxygen with a greenish yellow flame. From this observation, we can conclude that ammonia is\_\_\_\_\_.**  
a) inflammable      b) flaming      c) illuminous      d) non-flammable
74. **ZBNF is the term used in organic farming. Choose the expansion of it.**  
a) Zero bacteria night farming      b) Zero bacteria natural farming  
c) Zero budget natural farming      d) None of the above
75. **Which of the following gases is needed by plants for photosynthesis ?**  
a) Oxygen      b) Nitrogen      c) Carbon dioxide      d) Sulphur
76. **Larynx is called\_\_\_\_\_.**  
a) music box      b) voice box      c) respiratory organ      d) sound box
77. **Initially girls grow\_\_\_\_\_.**  
a) slower than boys      b) faster than boys  
c) both of these      d) none of these
78. **Which one of the following species of honeybee is an Italian species?**  
a) Apis dorsata      b) Apis mellifera      c) Apis cerana indica      d) Apis florae
79. **Lightning occurs due to \_\_\_\_\_.**  
a) wind      b) rain      c) electric discharge      d) earthquake
80. **Which of the following is sure test for charge ?**  
a) Passing undeviated in absence of other charges  
b) Getting attracted by opposite charges  
c) Getting repelled by a similar charge  
d) None of the above
81. **A major tsunami occurred on 26<sup>th</sup> December 2004 in which ocean\_\_\_\_\_.**  
a) Indian Ocean      b) Pacific Ocean  
c) North Atlantic Ocean      d) South Atlantic Ocean
82. **The like poles of magnet\_\_\_\_\_.**  
a) repel each other      b) attract each other  
c) no interaction takes place      d) All of these

- 83. Total number of electrons present in the penultimate shell of an element with atomic number 36 is\_\_\_\_.**  
a) 18                      b) 10                      c) 8                      d) 16
- 84. The number of electrons present in each alpha-particle is\_\_\_\_\_.**  
a) 2                      b) 3                      c) 0                      d) 1
- 85. Aluminum foil can be made from aluminum by following\_\_\_\_\_.**  
a) its thermal and electrical conductivities    b) its malleable property  
c) its sonorous property                      d) All of the above
- 86. On heating, the temperature of the melting solid\_\_\_\_\_.**  
a) increases                      b) decreases  
c) remains constant  
d) may increase or decrease depending upon the nature of the solid
- 87. Pickles are not stored in steel or aluminum containers because\_\_\_\_\_.**  
a) steel has chromium which is poisonous  
b) aluminum takes up oxygen from pickles and spoils it  
c) pickles have acids which can corrode iron and aluminum making pickles poisonous  
d) None of the above
- 88. Two boys A and B are applying force on a block. If the block moves towards the boy A, which one of the following statements is correct ?**  
a) Magnitude of force applied by A is smaller than that of B.  
b) Net force on the block is towards B.  
c) Magnitude of force applied by A is equal to that of B.  
d) Can't decide about magnitude of force
- 89. In which group of animals, coelom is filled with blood?**  
a) Arthropoda    b) Annelida    c) Nematoda    d) Echinodermata
- 90. If the weight of a person on earth is 90 N then his mass and weight on moon would be\_\_\_\_\_.**  
a) 9 kg mass and 90 N weight                      b) 90 N mass and 9 kg weight  
c) 1.5 kg mass and 15 N weight                      d) 9 kg mass and 15 N weight

**End**

**“Everybody’s a genius but if you judge a fish by its ability to climb a tree, it will spend its whole life believing that it is stupid.”**