

MATHEMATICS

1. **If two lines intersect at a point, the angles formed are**
 - a) Acute
 - b) Right angles
 - c) Complementary
 - d) Vertically opposite angles

2. **The sum of the angles of a triangle is**
 - a) 180°
 - b) 90°
 - c) 360°
 - d) 270°

3. **A box contains 4 red balls, 3 blue balls, and 5 green balls. What is the probability of drawing a red ball?**
 - a) $\frac{4}{12}$
 - b) $\frac{4}{12}$
 - c) $\frac{3}{12}$
 - d) $\frac{1}{4}$

4. **What is the perimeter of a rectangle with length 5 cm and breadth 3 cm?**
 - a) 15 cm
 - b) 16 cm
 - c) 10 cm
 - d) 8 cm

5. **What is the area of a square whose side is 6 cm?**
 - a) 36 cm^2
 - b) 12 cm^2
 - c) 24 cm^2
 - d) 18 cm^2

6. **Which of the following is the correct representation of the power form of $5 \times 5 \times 5$?**
 - a) 5^3
 - b) 5^2
 - c) 3^5
 - d) 5^5

7. **Solve for x : $3x + 5 = 20$**
 - a) $x = 5$
 - b) $x = 15$
 - c) $x = 10$
 - d) $x = 3$

8. Which of the following is a rational number?

- a) $\sqrt{2}$
- b) π
- c) $1/3$
- d) e

9. The integer between -5 and -7 is

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

10. Which of the following is an example of vertical opposite angles?

- a) When two lines cross each other at right angles
- b) When two angles add up to 90°
- c) When two angles are congruent
- d) When two angles formed by intersecting lines are equal

11. The length of one side of an equilateral triangle is 8 cm. What is the perimeter of the triangle?

- a) 24 cm
- b) 16 cm
- c) 32 cm
- d) 48 cm

12. Which of the following numbers is the greatest?

- a) 0.25
- b) $\frac{1}{5}$
- c) 0.2
- d) $\frac{1}{6}$

13. The area of a triangle with base 10 cm and height 5 cm is

- a) 50 cm^2
- b) 25 cm^2
- c) 20 cm^2
- d) 15 cm^2

14. Which of the following represents a correct comparison of quantities?

- a) $0.75 > \frac{3}{4}$
- b) $\frac{1}{2} > 0.55$
- c) $\frac{2}{3} < 0.8$
- d) $\frac{5}{6} < \frac{4}{5}$

15. If the exponents are equal, the value of the expression $2^4 \times 2^3$ is

- a) 2^7
- b) 2^1
- c) 2^8
- d) 2^3

APTITUDE

16. Find the next term in the series: 1, 4, 9, 16, __?

- a) 20
- b) 24
- c) 25
- d) 30

17. If the word 'BRIGHT' is coded as 'CRJHIU', how is 'FLAME' coded?

- a) GLBNF
- b) GMBNF
- c) GMBNF
- d) GLBME

18. Which number does not belong to the following group: 8, 27, 64, 125, 250 ?

- a) 8
- b) 27
- c) 250
- d) 125

19. If 'A' is the mother of 'B' and 'C' is the father of 'A', what is 'C' to 'B'?

- a) Grandfather
- b) Father
- c) Uncle
- d) Brother

20. A person walks 3 km north, then turns left and walks 4 km. How far is he from the starting point?

- a) 7 km
- b) 3 km
- c) 4 km
- d) 5 km

21. Find the time between 5:25 PM and 8:40 PM.

- a) 2 hours 15 minutes
- b) 3 hours 15 minutes
- c) 3 hours
- d) 4 hours

22. In a Venn diagram, which set contains all the even numbers?

- a) A set of prime numbers
- b) A set of odd numbers
- c) A set of natural numbers
- d) A set of even numbers

23. Which of the following is a mathematical operation?

- a) Subtraction
- b) Square
- c) Cube
- d) All of the above

24. Which number should replace the question mark in the series: 3, 9, 27, ?, 243 ?

- a) 54
- b) 81
- c) 72
- d) 90

25. What is the missing letter in the sequence: A, C, E, ?, I ?

- a) G
- b) H
- c) F
- d) D

26. If $5 \times 4 = 20$, then $4 \times 5 = ?$

- a) 25
- b) 20
- c) 30
- d) 35

27. Which of the following is the odd one out:

12, 15, 20, 25 ?

- a) 12
- b) 15
- c) 20
- d) 25

28. What is the next number in the pattern: 2, 4,

8, 16, __?

- a) 24
- b) 32
- c) 40
- d) 48

29. If $18:72 = 24 : ?$

- a) 120
- b) 96
- c) 100
- d) 88

30. Which of the following shapes has no parallel sides?

- a) Rectangle
- b) Square
- c) Rhombus
- d) Trapezium

PHYSICS

- 31. The distance travelled by an object per unit time is called**
- a) Speed
 - b) Velocity
 - c) Acceleration
 - d) Distance
- 32. The process of converting a solid into a liquid is called**
- a) Freezing
 - b) Melting
 - c) Evaporation
 - d) Condensation
- 33. Which of the following is an example of a non-renewable energy source?**
- a) Solar energy
 - b) Wind energy
 - c) Coal
 - d) Biomass
- 34. The heat energy required to raise the temperature of 1 kg of water by 1°C is called**
- a) Specific heat capacity
 - b) Latent heat

- c) Thermal conductivity
- d) Heat of fusion

- 35. The effect of electric current on a wire is called**

- a) Heating effect
- b) Magnetic effect
- c) Chemical effect
- d) All of the above

CHEMISTRY

- 36. Which of the following is an example of a base?**
- a) Vinegar
 - b) Soap
 - c) Salt
 - d) Lime
- 37. Which of the following is a physical change?**
- a) Burning of paper
 - b) Melting of ice
 - c) Rusting of iron
 - d) Digestion of food
- 38. The process of cleaning dirty water is called**
- a) Distillation
 - b) Filtration
 - c) Decantation
 - d) Sedimentation

39. Which of the following is NOT a component of acid rain?

- a) Sulfur dioxide
- b) Nitrogen oxides
- c) Carbon dioxide
- d) Chlorine

40. What is the primary function of forest in maintaining the ecosystem?

- a) Provide timber
- b) Help in carbon sequestration
- c) Help in soil erosion
- d) Provide medicinal plants

BIOLOGY

41. Which of the following is responsible for photosynthesis in plants?

- a) Chlorophyll
- b) Chloroplast
- c) Roots
- d) Stomata

42. In animals, the process of respiration takes place in the

- a) Lungs
- b) Heart

- c) Liver
- d) Stomach

43. Water and minerals are transported in plants through

- a) Phloem
- b) Xylem
- c) Roots
- d) Stem

44. Which of the following is NOT a method of plant reproduction?

- a) Seed formation
- b) Budding
- c) Fragmentation
- d) Pollination

45. Which process produces energy in both plants and animals?

- a) Photosynthesis
- b) Respiration
- c) Transpiration
- d) Germination

ENGLISH**46. Identify the passive voice sentence:**

- a) The teacher teaches the lesson.
- b) The lesson is taught by the teacher.
- c) The teacher is teaching the lesson.
- d) The teacher will teach the lesson.

47. Choose the correct form of pronoun:

- a) Me and him went to the park.
- b) Him and I went to the park.
- c) He and I went to the park.
- d) He and me went to the park.

48. Identify the adjective in the sentence:

"The tall building is beautiful."

- a) Tall
- b) Beautiful
- c) Building
- d) Is

49. Which of the following sentences is in the future tense?

- a) She eats an apple.
- b) She is eating an apple.
- c) She will eat an apple.
- d) She has eaten an apple.

50. Which part of speech is the word "quickly" in the sentence:

"She ran quickly"?

- a) Noun
- b) Verb
- c) Adjective
- d) Adverb

51. Choose the correct homophone for the blank in the sentence:

"The wind blew the leaves off the tree."

- a) Blue
- b) Blew
- c) Blee
- d) Bluu

52. Select the correct sentence:

- a) The dogs barks loudly.
- b) The dog bark loudly.
- c) The dog barks loudly.
- d) The dogs barking loudly.

53. Identify the adjective in the sentence:

"The red car is parked near the building."

- a) Car
- b) Red
- c) Parked
- d) Building

54. Which pronoun can replace the noun in this sentence?

“Ravi is playing cricket. Ravi loves cricket.”

- a) It
- b) She
- c) He
- d) They

55. Fill in the blank with the correct verb form:

“The sun ___ brightly in the sky.”

- a) Shine
- b) Shines
- c) Shining
- d) Shined

56. Choose the conjunction to complete the sentence:

“I want to go to the park, ___ it is raining.”

- a) Or
- b) And
- c) But
- d) So

57. Select the correct preposition for the blank:

“The keys are ___ the table.”

- a) In
- b) On

- c) At
- d) With

58. Choose the word that best fits the sentence:

“The teacher asked us to expand our ___ by learning new words.”

- a) Vocabulary
- b) Grammar
- c) Spelling
- d) Sentences

59. Select the collective noun in the sentence:

“A flock of birds flew across the sky.”

- a) Flock
- b) Birds
- c) Sky
- d) Flew

60. Fill in the blank with the correct gender noun:

“The bridegroom is standing next to the ___.”

- a) Man
- b) Girl
- c) Bride
- d) Woman