

SAMPLE PAPER

SET - 1

CLASS - VII



AVIRAL CLASSES

2nd Floor, World Trade Tower, 99-Rajpur Road, Dehradun

Web : www.aviral.co.in

E-mail : info@aviral.ac.in

PHYSICS

- A train travels 60 Km in 1 hour. The speed of the train is
(a) 0.6 m/s (b) 61.5 m/s (c) 60 m/s (d) 16.67 m/s
- Ravi walks to school which is at a distance of 5 km from his home in 20 minutes. On reaching he finds that school is closed and comes back in his friends car to home in 5 minutes. His average speed in Km/h is
(a) 20 km/h (b) 24 km/h (c) 30 km/h (d) 15 km/h
- A car moves with a speed of 150 km/h for 30 minutes then with a speed of 90 km/h for next 30 minutes. Total distance covered by car
(a) 120 km (b) 150 km (c) 125 km (d) 100 km
- Consider a pendulum vibrating at 70 cycles in half a minute, its time period will be
(a) 0.675 sec (b) 0.8 sec (c) 0.428 sec (d) 0.349 sec
- Which is the most suitable material for making the core of a strong permanent electromagnet
(a) Brass (b) Steel (c) Iron (d) Aluminium
- Which of the following characteristic is suitable for a fuse wire
(a) High melting point (b) Long and thin
(c) Made from Pb and Sn (d) Thick and short
- Value of 86 degrees celcius in Fahrenheit and Kelvin scale respectively is
(a) 186.8 F, 359 K (b) 185.8 F, 360 K (c) 184.5 F, 368 K (d) 194 F, 398 K
- What is the normal temperature of a human body ?
(a) 289 K (b) 320 K (c) 310 K (d) 315 K
- Statement-1 → Temperature travels from cold body to hot body
Statement-2 → Two bodies having same heat must always have same temperature.
Statement-3 → Heat is the degree of hotness or coldness of body
Statement-4 → Temperature is always a measure of heat
Find out the correct statement :
(a) 2 (b) 1 (c) 4 (d) 3
- Which is the odd one out ?
(a) Parsec (b) Second (c) Kilometer (d) Light year
- Four bodies have their volumes; A → 50 m³, B→50000 cm³, C→0.7 km³, D→55 × 10⁵ mm³. Which of them has the least density
(a) B (b) C (c) A (d) D
- The metre standard kept in france is cylindrical rod made up of
(a) Iron (b) Steel/brass
(c) Copper/Platinum (d) Platinum/Iridium
- Which of them instruments will give us the least precise measurement ?
(a) Vernier Calliper (b) Centimeter rule
(c) Screw guage (d) Kilometer rule (Measuring tape)

14. A measuring instrument with most precision has
 (a) Zero defects (b) Low accuracy
 (c) Low least count (d) High least count
15. The expansion of a substance on heating depends on
 (a) Size of substance (b) Temperature
 (c) Nature of substance (d) Both (b) and (c)

CHEMISTRY

16. When base are dissolve in water they give
 (a) Hydrogen ion (b) Hydroxide ion (c) H_3O^+ ion (d) None
17. Methyl orange is an example of
 (a) Acid (b) Salt (c) Base (d) Indicator
18. Galvanisation is used to prevent which of the following phenomenon
 (a) Corrosion (b) Dusting (c) Overloading (d) Short circuiting
19. Which of the following is an exmple of irreversible chemical change
 (a) Heating of an iron rod (b) Burning of coal
 (c) Boiling of water (d) Freezing of water
20. Which of the following is a weak acid
 (a) Hydrochloric acid (b) Nitric acid (c) Sulphuric acid (d) Oxalic acid
21. The churning of butter from milte is an example of
 (a) Physical change that can be reverse
 (b) Chemical change that can be reverse
 (c) A physical change that cannot be reverse
 (d) A chemical change that cannot be reverse
22. A wasp string is_____ in nature
 (a) Acidic (b) Basic (c) Altealine (d) Neutral
23. What is the time duration that a silk moth take to develop from the cocoon stage
 (a) 10 to 14 days (b) 14 to 21 days (c) 0 to 7 days (d) 5 to 10 days
24. Match the words of column-I with those given in column-II.

Column - I	Column - II
1. Scouring	A. Cleaning sheared skin
2. Mulberry leaves	B. Food of silk worm
3. Yak	C. Yields silk fibres
4. Cocoon	D. Wool yielding animal
	E. Reeling
(a) 1(A)-2(B)-3(D)-4(C) & (E)	(b) 1(A)-2(B)-3(D)-4(C)
(c) 1(B)-2(C)-3(D)-4(E)	(d) 1(C)-2(E)-3(A)-4(B)

25. 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
26. The colour of methyl orange in acidic medium is
 (a) Red (b) Blue (c) Orange (d) Yellow
27. Name the natural acid that is found in apple
 (a) Citric acid (b) Turmeric acid (c) Oxalic acid (d) Malic acid
28. The atomic mass of an atom is
 (a) Sum of electron and proton
 (b) is equal to the number of proton lies in the nucleus of an atom
 (c) Sum of proton and neutron
 (d) None of these
29. Apiculture is related to
 (a) Sheeps (b) Bees (c) Silkworm (d) Cereals
30. The acid which is present in milk
 (a) Lactic acid (b) Hydrochloric acid (c) Citric acid (d) Nitric acid

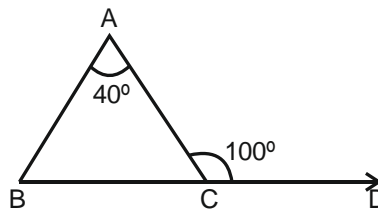
MATHEMATICS

31. If $5^{x+3} = 25^{(3x-4)}$, then value of x is
 (a) $\frac{5}{11}$ (b) $\frac{11}{5}$ (c) $\frac{11}{3}$ (d) $\frac{13}{5}$
32. By how much does $\frac{6}{7/8}$ exceed $\frac{6/7}{8}$?
 (a) $6\frac{1}{8}$ (b) $6\frac{3}{4}$ (c) $7\frac{3}{4}$ (d) $7\frac{5}{6}$
33. Which of the following fraction is the smallest ?
 (a) $\frac{13}{16}$ (b) $\frac{15}{19}$ (c) $\frac{17}{21}$ (d) $\frac{7}{8}$
34. If $\frac{144}{0.144} = \frac{14.4}{x}$, then the value of x is
 (a) 0.0144 (b) 1.44 (c) 14.4 (d) 144
35. By how much percent is four-fifth of 70 lesser than five-seventh of 112?
 (a) 24% (b) 36% (c) 30% (d) 42%
36. Angles of a triangle are in the ratio 2 : 4 : 3. The smallest angle of the triangle is
 (a) 20° (b) 40° (c) 60° (d) 80°
37. If A : B = 5 : 7 and B : C = 6 : 11, then A : B : C is
 (a) 55 : 77 : 66 (b) 30 : 42 : 77 (c) 35 : 49 : 42 (d) None of these

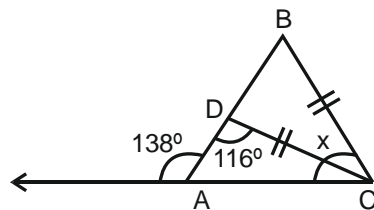
38. If a side of a rhombus is 10 cm and one of the diagonals is 16 cm, then the length of the other diagonal is
 (a) 6 cm (b) 12 cm (c) 20 cm (d) 12 cm
39. A man buys a cycle for Rs 1400/- and sells it at a loss of 15%. What is the selling price of the cycle?
 (a) Rs 1090 (b) Rs 1160 (c) Rs 1190 (d) Rs 1202

40. The value of $\frac{\frac{1}{2} \div \frac{1}{2} \text{ of } \frac{1}{2}}{\frac{1}{2} + \frac{1}{2} \text{ of } \frac{1}{2}}$ is

- (a) 1 (b) $1\frac{1}{3}$ (c) $2\frac{1}{3}$ (d) 3
41. Three numbers are in the ratio 3 : 4 : 5 and their LCM is 2400. Their HCF is
 (a) 40 (b) 80 (c) 120 (d) 200
42. In figure measure of $\angle ABC$ is

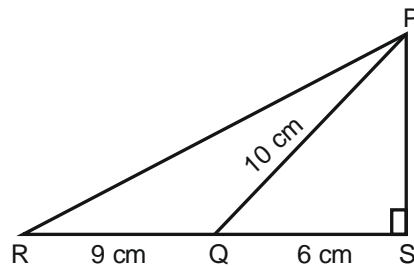


- (a) 60° (b) 70° (c) 80° (d) 50°
43. If 8% of $x = 4\%$ of y , then 20% of x is
 (a) 10% of y (b) 16% of y (c) 80% of y (d) None of these
44. If $x = \frac{1}{2\sqrt{3}}$ then the value of $x^2 - \frac{1}{x^2}$ is
 (a) $12\sqrt{3}$ (b) $8\sqrt{3}$ (c) 14 (d) 12
45. In the figure, the value of x is



- (a) 42° (b) 64° (c) 74° (d) None of these
46. If $2^x = 3^y = 6^{-z}$, then the value of $\frac{1}{x} + \frac{1}{y} + \frac{1}{z} = ?$
 (a) 0 (b) 1 (c) 2 (d) 3
47. If $\frac{P}{Q} = 7$, then the value of $\frac{P+\theta}{P-\theta}$ is
 (a) $\frac{1}{3}$ (b) $\frac{2}{3}$ (c) $\frac{4}{3}$ (d) $\frac{7}{8}$

48. A student has to obtain 33% of the total marks to pass. He got 125 marks and failed by 40 marks. The maximum marks are
 (a) 300 (b) 500 (c) 800 (d) 1000
49. The mean proportional between 234 and 104 is
 (a) 156 (b) 165 (c) 123 (d) 132
50. In the given figure, the length PR = ?



- (a) 10 cm (b) 14 cm (c) 17 cm (d) 18 cm

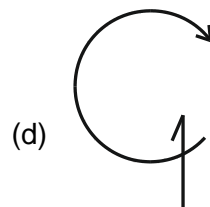
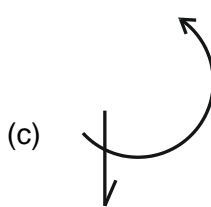
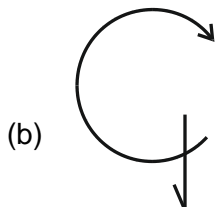
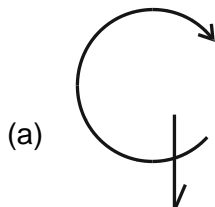
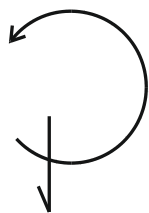
MENTAL ABILITY

51. 4, 32, 16, 128, 64, ?
 (a) 612 (b) 362 (c) 512 (d) 412
52. 0, 6, 24, 60, 120, 210, ?
 (a) 336 (b) 300 (c) 343 (d) 332
53. $4 \frac{9}{10} \frac{58}{10} 8$ $9 \frac{15}{10} \frac{?}{10} 8$
 (a) 117 (b) 78 (c) 100 (d) 63
54.

1	4	9	?
1	2	3	4
2	4	6	?

 (a) 16, 8 (b) 49, 7 (c) 36, 4 (d) 25, 5
55. One evening just before sunset two friends Sanju and Manju were talking to each other face to face. If Manju's shadow was exactly to her left side, which direction was Sanju facing?
 (a) North (b) South
 (c) West (d) None of these
56. A man facing towards North-West turns Left, Right, Right, Right, Left in series. In which direction now he is?
 (a) North (b) South-West
 (c) South (d) N-East

57. Find the mirror image of



58. Pick the odd one

- (a) Tree - Stem (b) Book - Page (c) Chair - TV (d) Car - Wheel

59. If '*' mean 'X', '\$' means '+', '#' means '÷' and '(C) means '-'; then what will be the value of the following expressions ?

$$36 \# 24 \$ 56 * 5 (C) 48$$

- (a) 253 (b) 242 (c) 247 (d) 285

60. If P denotes 'X', T denotes '-', Y denotes '+' and Z denotes '÷' ? then

$$28 Z 7 P 8 T 6 Y 4 \text{ is } \underline{\hspace{2cm}}$$

- (a) 15 (b) 30 (c) 32 (d) 34

61. A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

D K is to I H as K R is to _____

- (a) P O (b) O P (c) M P (d) P M

62. 8 is to 256 as 6 is to _____

- (a) 106 (b) 205 (c) 202 (d) 108

63. Choose the word which is least like the others. Words in a group ?

- (a) Zinc (b) Aluminium (c) Mercury (d) Copper

64. Resembles the mirror images of the given word.

M A G A Z I N E

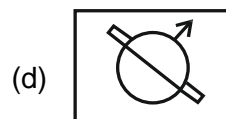
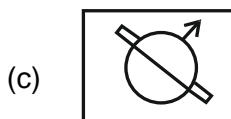
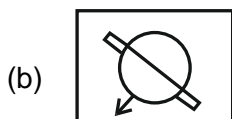
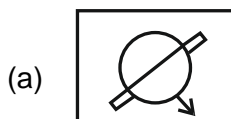
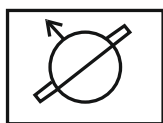
(a) M A G A Z I N E

(b) E N I Z A G A M

(c) E N I Z A G A M

(d) M A G A Z I N E

65. Find the image mirror



ANSWER KEY

<u>PHSICS</u>	<u>CHEMISTRY</u>	<u>MATHEMATICS</u>	<u>MENTAL ABILITY</u>
1. (D)	16. (B)	31. (B)	51. ()
2. (B)	17. (D)	32. (B)	52. ()
3. (A)	18. (A)	33. (B)	53. ()
4. (C)	19. (B)	34. (A)	54. ()
5. (B)	20. (D)	35. (C)	55. ()
6. (C)	21. (A)	36. (B)	56. ()
7. (A)	22. (B)	37. (B)	57. ()
8. (C)	23. (A)	38. (B)	58. ()
9. (C)	24. (B)	39. (C)	59. ()
10. (B)	25. (A)	40. (C)	60. ()
11. (B)	26. (A)	41. (A)	61. ()
12. (D)	27. (D)	42. (A)	62. ()
13. (D)	28. (C)	43. (A)	63. ()
14. (C)	29. (B)	44. (B)	64. ()
15. (D)	30. (A)	45. (C)	65. ()
		46. (A)	
		47. (C)	
		48. (B)	
		49. (A)	
		50. (C)	