myclassroom

For students moving from class 8ᵗʰ to class 9ᵗʰ

Exam ID : 1230

Time : 1:30 Hrs

Max. Marks : 240

IMPORTANT INSTRUCTIONS

Note: All Questions are compulsory:

Section-1: It contains 30 questions in total.

Question No. 1 to 10 belongs to Physics.

Question No. 11 to 20 belongs to Chemistry.

Question No. 21 to 30 belongs to Biology.

Section-2: It contains 10 questions in total.

Question No. 31 to 40 belongs to Mathematics.

Section-3: It contains 20 questions in total.

Question No. 41 to 60 are to Mental Ability questions.

Marking Scheme: Each question carries 4 marks. **For each correct response, the candidate will get 4 marks. There is no negative marking for incorrect response or unattempted questions.**

Section- I (SCIENCE)

1. Friction is a
   (a) non-contact force
   (b) contact force
   (c) magnetic force
   (d) electrostatic force

2. Which of the following is a bad conductor of electricity?
   (a) Distilled water
   (b) Silver nitrate
   (c) Sulphuric acid
   (d) Copper Sulphate

3. A smooth shining surface, which rebounds the light back in same or in different direction, is called
   (a) a mirror
   (b) a lens
   (c) reflection of light
   (d) point of incidence

4. Force acting on per unit area is called
   (a) non-contact forces
   (b) contact forces
   (c) force
   (d) pressure

5. Sound is a kind of
   (a) work
   (b) energy
   (c) force
   (d) pressure

6. Which of the following does not conduct electricity?
   (a) Sugar solution
   (b) Vinegar solution
   (c) Lemon juice solution
   (d) Caustic soda solution

7. Beam of light striking the reflecting surface is called
   (a) reflecting ray
   (b) incident ray
   (c) refracted ray
   (d) normal ray

8. A _____ exerted by an object on another is a force.
   (a) Push or pull
   (b) Contact or non-contact force
   (c) Pressure
   (d) Magnitude

9. The hearing range of human ear is
   (a) 20 Hz to 20,000 Hz
   (b) less than 20 Hz
   (c) more than 20,000 Hz
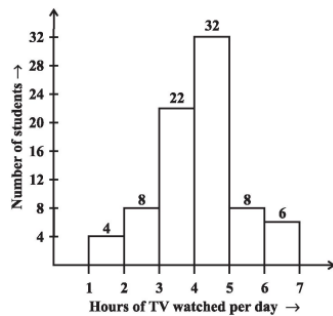   (d) 20 Hz to 25,000 Hz

10. Leaves or fruits fall on the ground due to

    (a) magnetic force   (b) gravitational force

    (c) electrostatic force   (d) muscular force

11. "_____is malleable and ductile" This statement best describes,

    (a) a metal   (b) a nonmetal   (c) a metalloid   (d) a compound

12. The substance having the highest calorific value is

    (a) LPG   (b) hydrogen   (c) oxygen   (d) coal gas

13. Identify the type of plastic that can best be used to make electrical switches.

    (a) PVC   (b) Polythene   (c) PET   (d) Bakelite

14. Read the following statements and select the correct ones.

A. Coal, petroleum and natural gas are fossil fuels.

B. Coal and natural gas are exhaustible resources.

C. Coke is used in the manufacture of steel.

D. Fossil fuels are present in limited quantities.

    (a) A and B   (b) A, B, C and D   (c) A, B and C   (d) A and D

15. Which of the following is obtained from hair of an animal?

    (a) silk   (b) nylon   (c) cotton   (d) wool

16. The most reactive metal of the following is,

    (a) Zinc   (b) Iron   (c) Magnesium   (d) Sodium

17. The zone of the candle flame which is moderately hot is called,

    (a) nonluminous zone   (b) luminous zone

    (c) inner dark zone   (d) lowest blue zone

18. Process of separating useful fractions from petroleum is called

    (a) Refining   (b) Cooling

    (c) Destructive distillation   (d) none of these

19. Which of these is a natural polymer

    (a) polyester   (b) cotton   (c) PVC   (d) acrylic

20. Which of the following groups contain only synthetic fibres?

   (a) Nylon, Terylene, Wool   (b) Cotton, Polycot, Rayon

   (c) PVC, Polythene, Bakelite   (d) Acrylic, silk, Wool

21. A healthy person is one who is free from:

   (a) Diseases   (b) Mental tension

   (c) Diseases and mental tension   (d) Bacteria

22. Murrah is a high yielding breed of:

   (a) Cow   (b) hen   (c) Buffalo   (d) Sheep

23. Hoolock Gibbon (India's only ape) is found in:

   (a) Kaziranga National Park   (b) Jim Corbett National Park

   (c) Bharatpur Birds Sancturay   (d) Kanha National Park

24. Mammals have :

   (a) Two – chambered heart   (b) body covered with hairs

   (c) Lungs for respiration   (d) Breast

25. Oxygen is poisonous for

   (a) all bacteria   (b) Anaerobic bacteria

   (c) Aerobic bacteria   (d) None

26. Which one contains voluntary muscles?

   (a) Heart   (b) Hind limb   (c) liver   (d) Lungs

27. Protein present in muscle fibers are

   (i) Actin   (ii) Myosin   (iii) Chondrin   (iv) Tendon

   Choose the most appropriate option

   (a) (i) & (iii)   (b) (ii) & (iv)   (c) (i) & (ii)   (d) (ii) & (iii)

28. The number of floating ribs, in the human body are:

   (a) 6 pairs   (b) 4 pairs   (c) 3 pairs   (d) 2 pairs

29. Hormone which controls amount of urine is:

   (a) TSH   (b) ADH   (c) Adrenalin   (d) thyroxin

30. In which of the following tissue, food is transported

   (a) Phloem   (b) Tracheids   (c) Vessels   (d) none of these

Section- II (MATHEMATICS)

31. A rational number between $\dfrac{3}{5}$ and $\dfrac{4}{5}$ is

   (a) $\dfrac{7}{5}$ (b) $\dfrac{7}{10}$ (c) $\dfrac{3}{10}$ (d) $\dfrac{4}{10}$

32. Solve : $2x - 3 = x + 2$

   (a) -5 (b) -9 (c) 5 (d) 9

33. The angle sum of all interior angles of a convex polygon of side 7 is

   (a) $180°$ (b) $540°$ (c) $630°$ (d) $900°$

Following bar graph shows marks obtained by a student in 2005–06 and 2006–07 subject wise. Read and answer the questions from 19 – 22

34. For how many hours did the maximum number of students watch TV?

   (a) 4-5 hrs   (b) 6-7 hrs   (c) 3-4 hrs   (d) 2-3hrs

35. How many students watched TV for less than 4 hrs ?

   (a) 12   (b) 34   (c) 4   (d) 8

36. How many students spent more than 5 hrs in TV watching ?

   (a) 14   (b) 0   (c) 6   (d) 8

37. For how many hours did the minimum number of students watch TV?

   (a) 2-3 hrs   (b) 6-7 hrs   (c) 1-2 hrs   (d) 3-4hrs

38. How many natural numbers lie between 9^2 and 10^2 ?

   (a) 15   (b) 19   (c) 18   (d) 17

39. Which of the following is Hardy – Ramanujan Number?

   (a) 1724   (b) 1725   (c) 1727   (d) 1729

40. Out of 32 student, 8 are absent. What percentage of the students are present?

   (a) 75%   (b) 64 %   (c) 60 %   (d) none of these

41. F3X, H7U, J15R, L31O, ?

    (a) M46L   (b) N44L   (c) N63L   (d) N44M

42. a_ab_ba_a_ab

    (a) babb   (b) abba   (c) baba   (d) aabb

43. a_cab_a_c_bc

    (a) bbac   (b) abab   (c) abba   (d) bcba

44. _abb_a_baa_b

    (a) baba   (b) abba   (c) aabb   (d) aaab

45. ba_cb_b_bab_

    (a) acbb   (b) bcaa   (c) cabb   (d) back

46. bc_b_c_b_ccb

    (a) cbcb   (b) bbcb   (c) cbbc   (d) bcbc

47.

    (a) 125   (b) 25   (c) 625   (d) 156

48.

    (a) 64   (b) 36   (c) 34   (d) 60

49.

7	9	11
2	3	2
53	90	?

    (a) 120   (b) 100   (c) 125   (d) 64

50.

B	C	?
O	Q	S
M	N	R

(a) A   (b) D   (c) G   (d) P

51. 2, 3, 5, 7, ?

(a) 9   (b) 10   (c) 11   (d) 14

52. 4, 25, 64, 121, 196, ?

(a) 384   (b) 256   (c) 225   (d) 289

53. 4, 10, 22, 46, ?

(a) 56   (b) 66   (c) 76   (d) 94

54. 12, 15, 18, 21, ?

(a) 24   (b) 23   (c) 22   (d) 25

55. 4, 7, 3, 6, 2, 5, ?

(a) 6   (b) 5   (c) 3   (d) 1

Direction (56- 59)

Which sequence of letter when placed at the blanks one after the other will complete the given letter series.

56. _aabb_abbb_b

(a) b a b   (b) b a c   (c) b b a   (d) b a a

57. a _ b a a _ b a a _ b a

(a) a a b   (b) b a b   (c) b b a   (d) b b b

58. _ b a a _ b a _ a a b _

(a) b a b a   (b) b b a a   (c) a b b b   (d) b b a b

59. b a b b b _ b _ b b

(a) b b a   (b) b a b   (c) a b a   (d) a a a

60.

(a) 49   (b) 50   (c) 48   (d) 55