ATOMIC ENERGY CENTRAL SCHOOL – 2, MUMBAI
MULTIPLE CHOICE QUESTIONS TEST -1

CLASS IX

MATHS, SCIENCE AND SOCIAL SCIENCE

MAX. MARKS:- 60   **TIME PERIOD:- 1 ½ HRS.**

MATHEMATICS

1. Which of the following is irrational?

   (a) $\sqrt{\dfrac{4}{9}}$ (b) $\dfrac{\sqrt{12}}{\sqrt{3}}$ (c) $\sqrt{7}$ (d) $\sqrt{81}$

2. The value $\dfrac{\sqrt{32}+\sqrt{48}}{\sqrt{8}+\sqrt{12}}$ of

   (a) $\sqrt{2}$ (b) 2   (c) 4   (d) 8

3. A rational number equivalent to $\dfrac{5}{7}$ is

   (a) $\dfrac{15}{17}$ (b) $\dfrac{25}{27}$ (c) $\dfrac{10}{14}$ (d) $\dfrac{10}{21}$

4. The rational number 0.3 can also be written as

   (a) 3   (b) $\dfrac{3}{10}$ (c) 0.33   (d) $\dfrac{13}{3}$

5. On adding $2\sqrt{3}$ and $3\sqrt{2}$ we get

   (a) $5\sqrt{5}$ (b) $5(\sqrt{3}+\sqrt{2})$ (c) $2\sqrt{3}+3\sqrt{2}$ (d) $2\sqrt{6}$

6. The product of $\sqrt{10}$ and $\sqrt{15}$ is

   (a) $6\sqrt{5}$ (b) $5\sqrt{6}$ (c) $\sqrt{25}$ (d) $10\sqrt{5}$

7. $\sqrt{12} + \sqrt{10} - \sqrt{2}$ is

   (a) a positive rational number   (b) equal to 0

   (c) an irrational number   (d) a negative integer

8. For positive real numbers p and q, which of the following is not true?

   (a) $\sqrt{pq} = \sqrt{p}\sqrt{q}$ (b) $(p + \sqrt{q})(p - \sqrt{q}) = p^2 - q$

   (c) $\sqrt{\dfrac{p}{q}} = \dfrac{\sqrt{p}}{\sqrt{q}}$ (d) $(\sqrt{p} + \sqrt{q})(\sqrt{p} - \sqrt{q}) = p + q$

9. If $\frac{1}{7} = 0.\overline{142857}$, then $\frac{4}{7}$ equals

  (a) 0.428571   (b)0.285714   (c) 0.857142   (d)0.571428

10. After rationalizing the denominator of $\frac{7}{3\sqrt{3}-2\sqrt{2}}$ we get the denominator as

  (a) 13   (b)19   (c)5   (d)35

11. $\frac{3\sqrt{12}}{6\sqrt{27}}$ is equal to

  (a)$\frac{1}{2}$ (b)$\sqrt{3}$ (c)$\frac{1}{3}$ (d) $\sqrt{2}$

12. $\frac{7+\sqrt{5}}{7-\sqrt{5}} - \frac{7-\sqrt{5}}{7+\sqrt{5}} = a + \frac{7\sqrt{5}}{11}$, then $a =$

  (a) 0   (b)1   (c)2   (d)3

13. The value of $\sqrt[4]{(81)^{-2}}$

  (a) $\frac{1}{3}$ (b)$\frac{1}{9}$ (c) 3   (d) -27

14. The value of $64^{-1/3}[64^{1/3} - 64^{2/3}]$

  (a) -3 (b) 4   (c) 8   (d) -6

15. Degree of the polynomial $(x + 2)(x^2 - 2x + 4)$ is

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

16. The zero of the polynomial $p(x) = 2x + 5$ is

(a)$\frac{2}{5}$ (b)$-\frac{2}{5}$ (c)$-\frac{5}{2}$ (d) $\frac{5}{2}$

17. The value of $3x^2 + 5x - 2$ at $x = 2$ is

(a) -10 (b) 20   (c) -20 (d) 12

18. If $p(x) = x^2 - 2\sqrt{2}x + 1$, then $p(2\sqrt{2}) =$

(a) 0   (b) 1   (c) $4\sqrt{2}$ (d) $8\sqrt{2} + 1$

19. If $p(x) = x + 3$, then $p(x) + p(-x)$ is equal to

(a)3   (b) 2x   (c) 0   (d) 6

20. The value of the polynomial $5x - 4x^2 + 3$ when $x = -1$ is

(a) -6 (b) 6   (c) 2   (d) -2

SCIENCE

21. Harry was sitting in his room and his mother was cooking some food in the kitchen. After some time he got the smell of hot sizzling food because of
a) Fusion   b) Melting   c) Diffusion d) Evaporation

22. In which of the following physical states of a substance force of attraction between the molecules is maximum?

(a) Solid   (b) liquid   (c) gas   (a) all of these

23. Which is not a common characteristic property of matter?
(a) The molecules possess kinetic energy
(b) The molecules occupy certain volume
(c) The molecules are rigid and have fixed positions
(d) The molecules vibrate between the mean positions

24. Gases do not have _____.
(a) high compressibility (b) large volume
(c) high fluidity (d) high density

25. The amount of the heat energy required to change 1kg of solid into liquid at atmospheric pressure at its melting point is known as…………………
a) Latent heat of evaporation b) Latent heat of vapourisation
c) Latent heat of fusion d) Latent heat of fission

26. The phenomenon of change of liquid into vapours at any temperature below its boiling point is called…………..
a) Deposition b) Sublimation c) Evaporation d) Condensation

27. Rate of evaporation does not increases with
a) Increase of surface area b) Increase in humidity
c) Increase in temperature d) increase in wind speed

28. The complete breakdown of glucose in presence of oxygen in the cell takes place in
a). Mitochondria   b) Chloroplast   c) Ribosome   d) Lysosomes

29. Which organelle of the cell plays a crucial role in detoxifying many poisons and drugs?
a) RER   b) SER   c) RNA   d) DNA

30. The Lysosomes stores
a) DNA   b) Fats   c) RNA   d) Hydrolytic enzymes

31. When did Robert Hooke discover the cell?
a) 1665   b) 1995   c) 1885   d) 1775

32. Which cell organelle is known as the "powerhouse" of the cell?
a) Golgi apparatus b) Lysosome c) Nucleus d) Mitochondria

33. The cells arise from pre-existing cells was stated by
a) Robert Brown   b) Virchow   c) Schleiden   d) Purkinje

34. The process by which Amoeba engulfs its food is called
a) Diffusion   b) Endocytosis   c) Osmosis   d) Plasmolysis

35. A freely falling body is said to be moving with _____.

(a) constant non-zero acceleration   (b) non-uniform motion

(c) zero velocity   (d) non-uniform acceleration

36. A body travelling equal distances in equal intervals of time is said to be moving with uniform velocity if the body moves along a _____ path

(a) Straight   (b) rectangular   (c) circular   (d) hexagonal

37. If a body travels equal distances in equal intervals of time, then_____.

(a) the body is moving with uniform velocity

(b) the body is moving with uniform acceleration

(c) the body may be moving with uniform velocity

(d) the body is moving with uniform deceleration

38. The shortest distance measured from the initial to the final position of an object is known as :-

(a) it's displacement   (b) it's distance   (c) it's velocity   (d) none of these

39. The rate of change in displacement is called :-

(a) velocity   (b) acceleration   (c) Speed   (d) retardation

40. In 12 minutes, a car whose speed is 35 km/h travels a distance of _____.

(a) 7 km   (b) 3.5 km   (c) 245 km   (d) None of these

SOCIAL SCIENCE

41. Which of the following is not a physical capital?

i) Machineries   ii) money   iii) tools   iv) human beings

42. Bigha, guintha, hectare etc. are the units of measuring------------------

i) land   ii) milk   iii) vegetables   iv) gold

43. Green Revolution benefitted the farmers of mainly ----------------

i) Punjab and Haryana   ii) Kerala and Karnataka

iii) Meghalaya and Manipur   iv) none of these

44. What is the main production activity in Palampur?

i) fishing   ii) Farming   iii) Forestry   iv) business

45. Which crops are grown in Palampur during rainy season?

i) Wheat and rice   ii)Vegetables   iii) Jowar and Bajra   iv) Maize and pumpkin

46. Crops grown in winter season are called --------

i) kharif   ii) Rabi   iii) Zaid   iv) None of the above

47) Who led the military coup in Pakistan in 1999?

i) Nawaz Sharif   ii) Benazir Bhutto   iii) Mugabe   iv) Pervez Musharraf

48. Saudi Arabia cannot be called as a democracy as:-

i) The men have no ruling power   ii) women have no voting rights

iii) no value for women's votes   iv) more value for men's votes

49. Mugabe was a ruler of --------------------

i) Saudi Arabia   ii) Estonia   iii) Fiji   iv) Zimbabwe

50. Democracy is a better form of Govt because:-

i) It enhances the dignity of citizens   ii) improves the quality of decisions

iii) Accountable form of Govt   iv) All of the above

51. PRI ruled in -------

i) Zimbabwe   ii) Mexico   iii) Myanmar   iv) Pakistan

52. Democracy is a form of government in which the rulers are elected by the ---------

i) President   ii) people   iii) men   iv) women

53. The southernmost point of the Indian Union– -----------got submerged under the sea water in 2004 during the Tsunami.

i) Kanya kumari   ii) India point   iii) Indira point   iv) Palk Strait

54. The land mass of India has an area of ----------------------.

i) 3.28million square km.   ii) 6.28million square km.

iii) 3.28 square km.   iv) 6.28 square km.

55. India is the -------------- largest country of the world.

i) first   ii) tenth   iii) third   iv) seventh

56. What is the latitudinal and longitudinal extent of themainland of India?

i) about 30°   ii) about 40°   ii) about 3°   iv) about 38°

57. Since the opening of the Suez Canal in 1869, India's distance from Europe has been reduced by ----------------------.

i) 8000 km   ii) 7800 km   iii) 7000 km   iv) none of these

58. Sri Lanka is separated from India by a narrow channelof sea formed by the Palk Strait and the ---------------

i) Gulf of Kham bat   ii) Gulf of Mannar   iii) Persian Gulf   iv) Gulf of Oman

59. Which of the following is the Standard Meridian of India?

i) 68°7'E   ii) 23° 30'N   iii) 97°25'E   iv) 82°30'E

60. India's total area accounts for about --------- of the total geographical area of the world.

i) 2.4 per cent   ii) 3.4 per cent   iii) 12.4 per cent   iv) 2.8 per cent