

(4)

40. The sex of a child depends on the sex chromosome present in the
a) egg b) sperm c) both a & b d) none of these
41. A pair of contrasting characters is called
a) phenotype b) genotype c) allele d) gene
42. In a cross $Tt \times Tt$ the percentage of offsprings produced having the same phenotype as the parents would be
a) 50% b) 100% c) 25% d) 0%
43. When a heterozygous tall plant is crossed with dwarf plant, ratio of tall and pure dwarf plants in F_2 generation will be
a) 2:1 b) 1:1 c) 3:1 d) 9:3:3:1
44. The image formed by a concave mirror
a) is always real b) is always virtual
c) can be both real & virtual d) none of these
45. The image formed by a convex mirror may be
a) virtual and diminished b) virtual and magnified
c) virtual and of the same size d) real and magnified
46. Myopia occurs due to
a) increase in the focal length of the eye lens
b) decrease in the focal length of the eye lens
c) contraction of eye ball
d) enlargement of the eye ball
47. Astigmatism can be corrected by
a) concave lens b) convex lens
c) cylindrical lens d) none of these
48. The beam of light, one red and other blue fall on the same spot on a white screen. The colour on the screen will appear to be
a) magenta b) cyan c) yellow d) green
49. Kattas is the ancient method of water harvesting found in
a) Himachal Pradesh b) Karnataka
c) Tamil Nadu d) Madhya Pradesh
50. Water pollution can be identified by
a) pH level b) Biological oxygen demand
c) both a and b d) none of these

The End

18th STATE LEVEL COMPETITION - 2017

ORGD. BY: THE UNITED DEVELOPMENT ASSN. (UDA) KHANGABOK

H.Q. KHANGABOK, THOUBAL (MANIPUR)

Regd. No. 3/SR/TH/1999

CLASS-X (SCIENCE)

Time: 1hr.

INSTRUCTION:

1. There are 50 questions with four alternatives of which one is the correct/most appropriate answer. Each question carry 2 marks.
2. The correct/most appropriate choice should be marked in the answer sheet with a ball point pen only, by darkening the circle corresponding to the correct choice.
3. If any candidate is found using unfair means of any kind, he/she shall be expelled from the test without any prior warning.
4. Using any calculator/mobile phone etc. is strictly prohibited in exam. hall.
5. The decision of the Association with regard to the conduct of the Examination shall be final and binding to the candidate.
1. Which of the following is not a redox reaction?
a) $Mg + Cl_2 \rightarrow MgCl_2$ b) $CuO + H_2 \rightarrow Cu + H_2O$
c) $AgNO_3 + NaCl \rightarrow AgCl + NaNO_3$ d) $Na + O_2 \rightarrow Na_2O$
2. In the reaction $MnO_2 + 4HCl \rightarrow MnCl_2 + 2H_2O + Cl_2$ the substance reduced is
a) MnO_2 b) $MnCl_2$ c) HCl d) Cl_2
3. What will be the volume of hydrogen gas liberated at STP when 6.5g of Zn (At wt = 65) is dipped in 0.1 mole of HCl . [$Zn + 2HCl \rightarrow ZnCl_2 + H_2$]
a) 22.4 litre b) 1.12 litre c) 2.24 litre d) 11.2 litre
4. What is not true in a balanced chemical equation?
a) Number of atoms of different elements on both sides are equal.
b) Mass of both sides are equal.
c) Total charges on both sides are equal
d) Number of charged ions on both sides are equal.
5. Which of the following element forms an acidic oxide?
a) Mg b) Na c) P d) Al
6. An aqueous solution of sodium acetate will turn
a) methyl orange yellow b) red litmus blue
c) phenolphthalein solution pink d) all of the above
7. A solution when added to crushed egg shells a gas is evolved that turns lime water milky. The solution contains
a) HCl b) $NaCl$ c) NH_4Cl d) KCl
8. The metal that can replace Cu from copper sulphate solution among the following is
a) Ag b) Au c) Pt d) Zn
9. Which of the following is not an ionic compound?
a) sodium chloride b) calcium chloride
c) carbon tetrachloride d) calcium chloride
10. The liquid used by Goldsmith to dissolve gold
a) Hydrochloric acid b) Sodium hydroxide c) Nitric acid d) aqua regia.

Turn Over

(2)

11. The first step in photosynthesis is
 - a) photolysis of water
 - b) reduction of carbondioxide
 - c) excitation of chlorophyll
 - d) synthesis of ATP
12. In which part of the alimentary canal, digested food is absorbed
 - a) stomach
 - b) duodenum
 - c) large intestine
 - d) small intestine
13. Bile juice is stored in
 - a) liver
 - b) gall bladder
 - c) stomach
 - d) none of these
14. Alveoli are present in
 - a) lungs
 - b) kidney
 - c) heart
 - d) liver
15. In angiosperms transport of water is mainly through
 - a) phloem
 - b) parenchyma
 - c) xylem
 - d) collenchyma
16. Glucose level in blood is regulated by
 - a) insulin and thyroxine
 - b) insulin and glucagon
 - c) insulin and calcium
 - d) glucagon and thyroxine
17. Cerebral hemisphere are the centres of
 - a) thinking
 - b) balance
 - c) smell
 - d) taste
18. Which of the following do not secrete any hormone?
 - a) pancreas
 - b) testes
 - c) spleen
 - d) ovary
19. Auxins inhibit the growth of
 - a) apical bud
 - b) lateral bud
 - c) root
 - d) floral parts
20. Gibberellins stimulate
 - a) cell division
 - b) growth of lateral roots
 - c) growth of stem
 - d) curvature of shoot
21. The surface of the earth is taken to be at
 - a) infinite potential
 - b) negative potential
 - c) positive potential
 - d) zero potential
22. Three resistances of $4\ \Omega$, $5\ \Omega$ and $20\ \Omega$ are connected in parallel. The resultant resistance is
 - a) $1\ \Omega$
 - b) $4\ \Omega$
 - c) $5\ \Omega$
 - d) $2\ \Omega$
23. When current of I ampere is passed through a resistor of R ohm for t seconds, the amount of heat produced is
 - a) $H = PRt$ cal.
 - b) $H = PRt$ Joule
 - c) $H = PRt$ Kcal
 - d) $H = \frac{I^2 R t}{4.18}$ Joule
24. Which of the following is correct?
 - a) Joule = coulomb $\times$ volt
 - b) Joule = coulomb/volt
 - c) Joule = volt/ampere
 - d) Joule = ampere $\times$ volt
25. Kilowatt hour is the unit of
 - a) electric power
 - b) electric resistance
 - c) electric potential
 - d) electric energy

Turn over

(3)

(6)

26. A charged body at rest produces
 - a) electric field only
 - b) magnetic field only
 - c) neither electric field nor magnetic field
 - d) both electric & magnetic field
27. A positive charge projected towards east is deflected towards north by a magnetic field. The magnetic field is directed
 - a) towards west
 - b) towards south
 - c) upward
 - d) downward
28. Which of the following is not a green house gas?
 - a) CO_2
 - b) CH_4
 - c) SO_2
 - d) CO
29. Which of the following isotope of uranium is used for nuclear fission?
 - a) U^{235}
 - b) U^{237}
 - c) U^{238}
 - d) U^{239}
30. Select an alkene from the following
 - a) C_2H_{10}
 - b) C_4H_{10}
 - c) C_6H_{10}
 - d) C_6H_8
31. Which of the following pairs are not isomer?
 - a) n-butane and isobutane
 - b) n-pentane and neopentane
 - c) 1-butyne and 2-butyne
 - d) propane and methyl propane
32. The IUPAC name of HCOOH is
 - a) acetic acid
 - b) oxalic acid
 - c) acetone
 - d) methanoic acid
33. Select a pair of homologous series from the following.
 - a) C_2H_6 and C_6H_{10}
 - b) CH_3COOH and $\text{C}_2\text{H}_5\text{COOH}$
 - c) C_4H_8 and C_3H_4
 - d) $(\text{CH}_3)_2\text{CO}$ and $\text{C}_3\text{H}_7\text{CHO}$
34. Elements belonging to the same period of the Periodic table have
 - a) same valence electrons
 - b) same number of shells
 - c) same atomic side
 - d) same electron affinity
35. Which group of the periodic table contains maximum elements?
 - a) third
 - b) eighth
 - c) seventeenth
 - d) eighteenth
36. Elements A, B, C, D get their outer shells filled progressively with electrons. Arrange the elements in increasing order of their ionisation potential
 - a) $A < C < B < A$
 - b) $C < B < A < D$
 - c) $A < B < C < D$
 - d) $B < A < D < C$
37. Bryophyllum reproduces vegetatively through
 - a) leaf
 - b) root
 - c) stem
 - d) flower
38. Fertilisation of ovum in human beings take place in
 - a) ovary
 - b) vagina
 - c) uterus
 - d) fallopian tube
39. The first cell developed by the fusion of male and female gametes is known as
 - a) embryo
 - b) zygote
 - c) morula
 - d) placenta

Turn Over