



Provincial Department of Education

Northern Province



Second Term Examination - 2023

Grade :- 11

Science I

Time :- 1 hour

Index Number :-

34

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Note:-

- Answer All questions
- In each of the questions from number 1 to 40 pick one of the alternatives (1), (2), (3), (4) which is correct or most appropriate.
- Mark a cross (X) on the number corresponding to your choice in the answer sheet provided.

1. Which structure can be observed in plant cell and not in Animal cell?

1. Cytoplasm 2. Cell wall 3. Nucleus 4. Central vacuole

2. Which is the unit of rate of work

1. W 2. J 3. Js 4. N

3. Identify the elements found in a biological molecule having deoxyribonucleotide as its building unit.

1. CHO 2. CHON 3. CHONP 4. CHONS

4. The incorrect statement regarding a tissue which is commonly found in the free surface of internal and external part of vertebrates.

1. Cells are found on the basement membrane.
2. Composed of single or multiple layers.
3. Cells are tightly packed and possess nerve supply.
4. Show rhythmic movement.

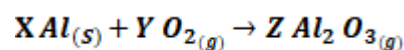
5. The number of atomic mole of oxygen found in 1 mole of CaCO_3

1. 1 2. 2 3. 3 4. 5

6. Calculate the force acts on an object of mass 200g and moves with the acceleration of 5 ms^{-2}

1. 1N 2. 1000 N 3. 0.04 N 4. 25 N

Answer question 7, 8 based on the chemical equation.



7. The correct value of X, Y, Z respectively

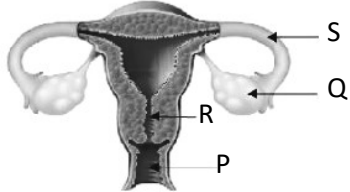
1. 2, 3, 2 2. 4, 3, 2 3. 3, 3, 2 4. 1, 2, 3

8. The above reaction belongs to which type of chemical reaction.

1. Combination reaction 2. Single displacement
3. Decomposition reaction 4. Double displacement

9. The disease caused due to mutation

1. Colour blindness 2. Albinism 3. Hemophilia 4. Polydactyly

10. Which one can't be a reason for heat transfer through a metal rod.
1. The kinetic energy of free electrons
 2. The vibration of atoms of metal rod
 3. The transmission of energy among atoms due to collision
 4. Forward movement of atoms with heat energy.
11. An organism found in the environment show the following features
- Unicellular, multicellular.
 - Having chitinous cell wall and organized nucleus.
- The organism belongs to which kingdom
1. Protista
 2. Fungi
 3. Animalia
 4. Plantae
12. Element X Shows the valency of 2. The correct chemical formul of the phosphate of X
1. $X_2(PO_4)_3$
 2. $X_3(PO_4)_2$
 3. XPO_4
 4. $X_2(PO_4)_2$
13. The reproductive system of female is shown in the figure
The letters which denote ovum development, Fertilization
Implantation, Parturition are respectively.
- 
1. P, Q, R, S
 2. Q, R, S, P
 3. Q, S, R, P
 4. S, Q, R, P
14. 250cm^3 Ethanol solution was prepared by adding 25cm^3 distilled water to Ethanol The volume fraction of solute is
1. 0.01
 2. 0.1
 3. 0.2
 4. 0.5
15. Choose the correct statement regarding electromagnetic Spectrum.
1. Features of waves found in electromagnetic spectrum differ in each frequency range.
 2. The velocity of waves changes.
 3. Radio waves have longest wave length and have the highest energy.
 4. The Gamma rays are generated by bombarding electrons on metal targets.
16. Which one of the following has low pH value of the given solutions having concentration of 0.5 mol dm^{-3} NaOH, NH_4OH , CH_3COOH , HNO_3
1. NaOH
 2. NH_4OH
 3. CH_3COOH
 4. HNO_3
17. Find the momentum of carom disc of 10g mass moving with the velocity of 4 ms^{-1}
1. 0.04 kg ms^{-1}
 2. 0.4 kg ms^{-1}
 3. 2.5 kg ms^{-1}
 4. 0.25 kg ms^{-1}
18. The substance reabsorbed completely in a healthy adult while the glomerular filtrate moves along the convoluted tube of Nephron
1. Glucose
 2. plasma Protein
 3. vitamin B
 4. water
19. The Number of molecules Found in 20g NaOH
(Na -23, H - 1, O - 16)
1. $\frac{20}{40} \times 6.022 \times 10^{23}$
 2. $\frac{40}{20} \times 6.022 \times 10^{23}$
 3. $\frac{6.022 \times 10^{23}}{40 \times 20}$
 4. $40 \times 20 \times 6.022 \times 10^{23}$
20. If the perpendicular reaction force increases between two surfaces the fractional force of it will
1. Increase
 2. decrease
 3. not change
 4. decrease then increase
21. Optical instrument used to monitor the shops for security purpose.
1. Plane Mirror
 2. Concave mirror
 3. Convex mirror
 4. Biconvex lens

22. Which one is incorrect regarding all given molecules.



1. The bonds are formed by sharing of electrons.
2. There is no double bond between atoms of molecules.
3. The octet is observed in the central atom of molecules.
4. Lone pair of electron are found in atoms which make bond.

23. The information of an element is given below

- Allotrophs are found naturally.
- Burns with blue flame.
- Used as fungicide.

The element is

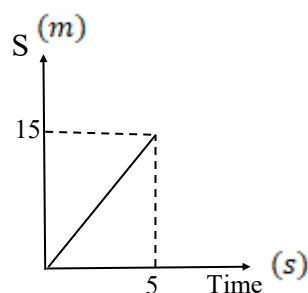
1. Aluminium
2. Carbon
3. Sulphur
4. Boron

24. Consider the statements regarding Displacement time graph.

- A) Gradient of the graph is acceleration
- B) The rate of change of displacement is 3 ms^{-1}
- C) The displacement in 5 seconds is 37.5m.

Correct statement / statements

1. A only
2. B only
3. A, C only
4. B, C only



25. Which one does not related to lymphatic system.

1. Lymphatic vessel
2. Lacteal
3. Lymph nodes
4. Blood Capillaries

26. When solid NH_4Cl is dissolved in water what can be observed

1. Temperature increase
2. Temperature decrease
3. Formation of deposits
4. Colour change

27. 'm' mass of Aluminium reached the temperature of 110°C from 30°C when 14400 J heat was supplied to it Calculate 'm' (heat capacity of Aluminium is $900 \text{ J kg}^{-1} \text{ }^\circ\text{C}^{-1}$)

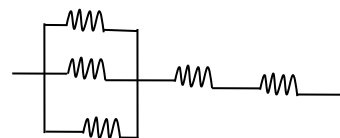
1. 200 g
2. 2 kg
3. 0.55 kg
4. 8/55 kg

28. The vitamin and mineral needed for blood clotting is respectively

1. Vitamin K, Phosporus
2. Vitamin B, Pottasium
3. Vitamin K, Calcium
4. Vitamin E, Phosporus

29. 3Ω Resistors were connected as shown in the figure . The value of equalent resistance is

1. 15Ω
2. 5Ω
3. 7Ω
4. 10Ω



30. The salt which deposits when the concentration of sea water increases 4 times greater than the initial concentration in saltern is

1. CaCO_3
2. NaCl
3. CaSO_4
4. MgSO_4

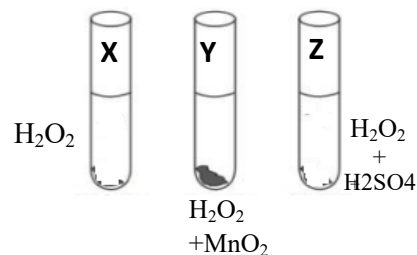
31. One of the application of transmission of liquid pressure is

1. Hydrometer
2. Submarine
3. Vaccum pump
4. Hydraulic Jack

32. Same amount of H_2O_2 was taken in to the similar test tubes X, Y, Z and small amount of H_2O_2 , H_2SO_4 were added into them at the same time.

Which is the correct order of gas release.

1. $X < Y < Z$
2. $Z < Y = X$
3. $Y < X < Z$
4. $Z < X < Y$



33. The type of cell of phloem tissue found only in dicot plant.

1. Phloem parenchyma
2. Phloem fibre
3. Companion cell
4. Sieve tube element

34. Reducing agent of Iron in Iron extraction

1. C
2. CO
3. CO_2
4. $CaCO_3$

35. P, Q are the objects with the mass of 1kg, 2kg respectively Both were released from the same height and reached the ground. Consider the statements,

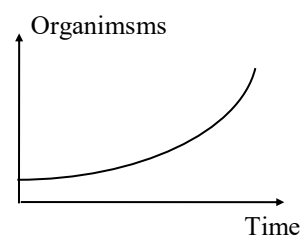
- A) Both reached the ground with the same velocity.
- B) A reached first.
- C) Both reached at the same time.

Correct statement / Statements.

1. A only
2. B only
3. AB only
4. A, C only

36. The population increase with the time is shown here Correct statement about the graph.

1. 4 phases of growth is shown.
2. The growth reaches stability at the end.
3. It shows Zigma shape.
4. It shows rapid increase of growth.

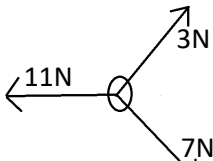


37. An example for couple of force

1. Detach a nut by a spanner
2. Detach a nail by nail hammer
3. Opening the door
4. Open lock by key

38. In which plant the pollination occurs by insect

1. Paddy
2. Hydrilla
3. Lotus
4. Corn

39.  3N, 7N, 11N are the forces act on a ring as shown in the figure. Resultant force of 3N, 7N forces is 5N. This Resultant force acts in same line of action of 11N force in opposite direction. What is the resultant force now

1. 5N
2. 16N
3. 6N
4. 11N

40. Which one is a renewable source of energy

1. Nuclear energy
2. Sea waves
3. Chemical cell
4. Coal

(2x40 = 80 marks)