



**PROVINCIAL DEPARTMENT OF EDUCATION  
NORTHERN PROVINCE**



**Provincial Level Year End General Exam - 2013**

**Science**

**Grade - 11**

**Part - I**

**Time : 1 hour**

◆ *Answer all the questions.*

◆ *Select the correct or most suitable answer among the answers 1, 2, 3 and 4 for the questions 1 to 40.*

◆ *For each question mark (X) for the selected answer in the appropriate cage of the answer sheet provided.*

1. Which of the following is a vertebrate.

- 1) Octopus                                      2) Jellyfish                                      3) Rat snake                                      4) Dragon fly.

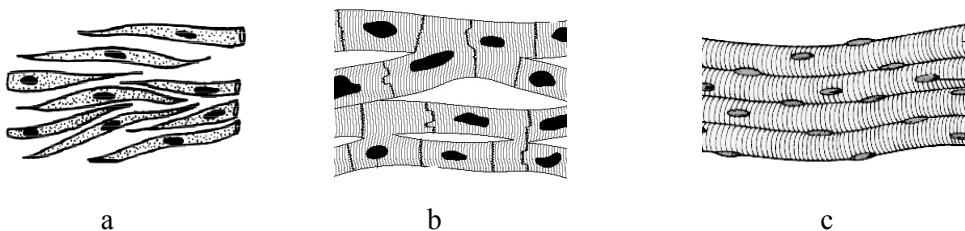
2. The incorrect statement of scientific nomenclature is,

- 1) The latinized name should be written.  
2) The first name is specific epithet and the second name is generic.  
3) When handwritten both the names should be underlined separately.  
4) When printed, the names should be in italic form.

3. Which type of the white blood cells given below increase in number during allergic reactions.

- 1)                                       2)                                       3)                                       4) 

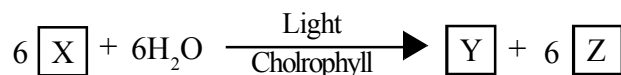
4.



The correct statement regarding the above muscular tissue A, B and C is,

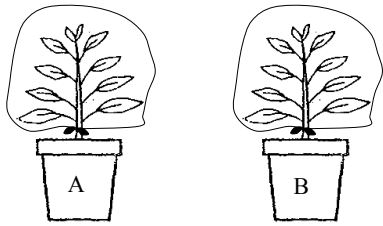
- |                |             |             |
|----------------|-------------|-------------|
| 1) Involuntary | Involuntary | Involuntary |
| 2) Voluntary   | Involuntary | Voluntary   |
| 3) Involuntary | Voluntary   | Involuntary |
| 4) Involuntary | Involuntary | Voluntary   |

5. The equation below shows the reaction of photosynthesis. The substances denoted by the letters X, Y and Z are.



- |  |   |   |
|--|---|---|
| X  | Y   | Z   |
| 1) O <sub>2</sub>                                | CO <sub>2</sub>                               | C <sub>6</sub> H <sub>12</sub> O <sub>6</sub> |
| 2) CO <sub>2</sub>                               | C <sub>6</sub> H <sub>12</sub> O <sub>6</sub> | O <sub>2</sub>                                |
| 3) C <sub>6</sub> H <sub>12</sub> O <sub>6</sub> | O <sub>2</sub>                                | CO <sub>2</sub>                               |
| 4) CO <sub>2</sub>                               | O <sub>2</sub>                                | C <sub>6</sub> H <sub>12</sub> O <sub>6</sub> |

6)



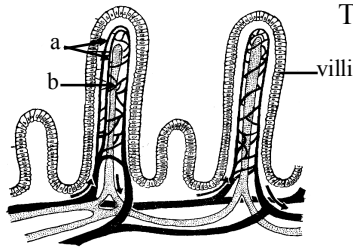
Two similar potted plants were taken and an experiment was arranged. Vaseline was applied both on the stem and petioles of the plant in the set up A.

Vaseline was applied on the leaves of the set up B.

The aim of the above experiment would be,

- 1) More stomata are found on the lower epidermis of the leaf.
- 2) More stomata are found on the upper epidermis of the leaf.
- 3) Transpiration takes place mainly through the leaves.
- 4) Light is essential for photosynthesis.

7.



The substances absorbed by the structures A and B respectively are,

- 1) Amino acid, Fatty acid
- 2) Fatty acid, Amino acid
- 3) Fatty acid, Glucose
- 4) Amino acid, Glucose.

8. a) Unicellular or Filamentous
- b) Hetotropic
- c) Cell wall made up of chitin

The group of micro - organisms with the above said features is,

- 1) Fungus
- 2) Alga
- 3) Bacteria
- 4) Protozoa

9. Some food substances A , B, C, D and the enzymes w, x, y, z act on them are given below.

- |                 |               |
|-----------------|---------------|
| a - Protein     | w - Amylase   |
| b - Lipid       | x - Pepsin    |
| c - Starch      | y - Lipase    |
| d - Polypeptide | z - Peptidase |

The correct order of the above is,

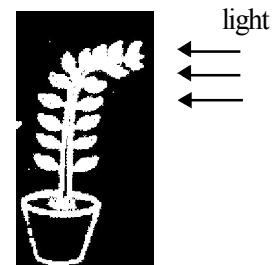
- 1) a - y, b - x, c - z, d - w
- 2) a - x, b - y, c - w, d - z
- 3) a - w, b - z, c - y, d - x
- 4) a - z, b - w, c - x, d - y

10. As shown in the diagram a potted plant was kept in such away, to get sunlight only on oneside. The plant bend towards the light. Three statements given on this observation are,

- A - Auxin is produced at the apex of the stem.
- B - The concentration of Auxin is high in the region where light falls.
- C - The elongation of cells is more in the side on which light falls than the side without light.

The correct statement of the above are,

- 1) A and B
- 2) A and C
- 3) B and C
- 4) A, B and C



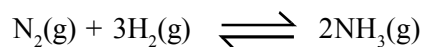
11. The cell that does not divide is,

- 1) Nerve cell
- 2) Cambial cell
- 3) Germinal cell
- 4) Epithelial cell

12. In a plant species tall is a dominant character over short. What is the phenotype ratio of the off springs, when a heterozygous tall plant is crossed with a homozygous short plant.

- 1) Tall : Short 1 : 1
- 2) Tall : short 2 : 1
- 3) Tall : short 1 : 2
- 4) Tall : short 1 : 3

13. The numbers of Protons, Neutrons and electrons of the atom of  ${}_{11}^{23}\text{Na}$  in order is,  
 1) 11, 23, 12                      2) 11, 12, 11                      3) 12, 11, 12                      4) 12, 23, 11
14. The oxides of elements  $x$  and  $y$  were dissolved in water separately. The pH values of the solutions obtained were 5 and 9 respectively. The possibility of  $x$  and  $y$  are,  
 1) Both  $x$  and  $y$  are metals                      2) Both  $x$  and  $y$  are non metals.  
 3)  $x$  is a metal and  $y$  is a non metal.                      4)  $x$  is a non metal and  $y$  is a metal.
15. The chemical reaction for the production of Ammonia is given below by an equation.



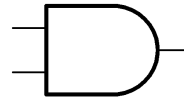
The number of ammonia molecules formed when using 2 moles of Nitrogen is,

- 1)  $6.022 \times 10^{23}$                       2)  $2 \times 6.022 \times 10^{23}$   
 3)  $4 \times 6.022 \times 10^{23}$                       4)  $6 \times 6.022 \times 10^{23}$
16. Sodium Chloride in the forms of crystal and powder was dissolved separately in equal amount of water, taken in two beakers. Same temperature was maintained in both. What you could say about the mass of Sodium Chloride dissolved if both the solutions are saturated.  
 1) Mass of sodium chloride dissolved in both solutions is same.  
 2) Mass of powdered salt is more than that of the crystal.  
 3) Mass of crystal salt is more than that of powder.  
 4) The mass of the salt dissolved depends on its ability to dissolve.
17. Which of the following contributes more in the depletion of Ozone layer.  
 1) Ammonia ( $\text{NH}_3$ )                      2) Carbondioxide ( $\text{CO}_2$ )  
 3) Chloroform ( $\text{CHCl}_3$ )                      4) Methane ( $\text{CH}_4$ )
18. A Violet flame was obtained when holding a pencil tip dipped first in HCl and then in a substance, over a bunsen flame. The substance that gives the violet colour is,  
 1) Ca                      2) Na                      3) K                      4) Sr
19. The electrolyte that could be used for silver plating is,  
 1) silver cyanide                      2) Gold cyanide  
 3) Copper sulphate                      4) Sodium chloride
20. The pair of solvents in which Jak latex dissolves is,  
 1) Coconut oil, Kerosene oil                      2) Cocoanut oil, alcohol  
 3) Coconut oil, water                      4) Alcohol, Kerosene oil
21. The following solutions were prepared in the laboratory by a group of students.  
 A. 5 g of solute was dissolved in 50 g of water and was made upto 100 g solution.  
 B.  $20 \text{ cm}^3$  Acetic acid was dissolved in water and was made up to  $250 \text{ cm}^3$ .  
 C. 5 g of solute dissolved in  $1 \text{ dm}^3$  solution.  
 Which solution of the above indicates the composition in w/w.  
 1) A                      2) A, C                      3) A, C                      4) B, C
22. If the oxide of an element X is  $\text{X}_2\text{O}_3$ , what will be the formula of it's chloride.  
 1)  $\text{XCl}_2$                       2)  $\text{X}_3\text{Cl}_2$                       3)  $\text{XCl}_3$                       4)  $\text{X}_2\text{Cl}_3$
23. The reason for fixing Magnesium pieces along iron bridges and at the base of the ships is,  
 1) It is a tradition to fix magesium.  
 2) Magnesium act as a "sacrificial metal"  
 3) Anodic protection is given to the base of the ship.  
 4) Magnesium provides strength to both structures.

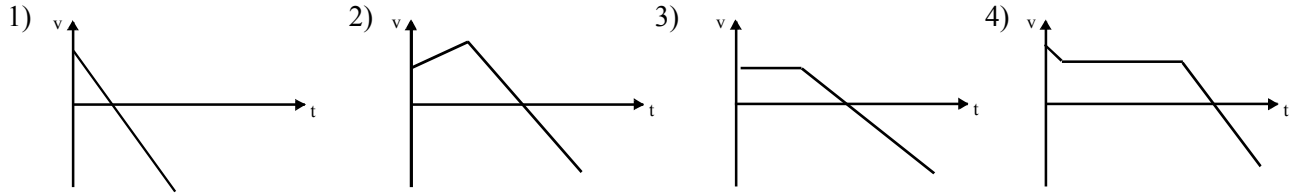
24. An element which is a metal and with the valency of 3, is found in the third. Period of the periodic table. The number of electrons in the last shell and the group to which the above element belongs to are,  
 1) 3, III                              2) 5, III                              3) 3, V                              4) 3, II

25. Which musical instrument differs from the other.  
 1) Piano    2) Flute  
 3) Mandolin    4) Armonium

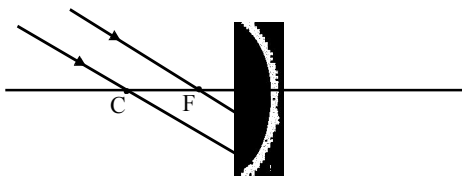
26. A logical gates is shown by this diagram. This denotes.  
 1) NOT gate  
 2) NAND gate  
 3) AND gate  
 4) OR gate



27. A rocket was launched vertically upwards with uniform velocity reached the earth because of the engine trouble velocity - time graph for the motion of the rocket is,



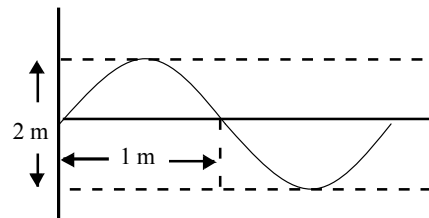
28. Light rays fall on a concave mirror is shown in the given diagram. Location of object and image respectively in the given instance is,



- 1) F, infinity  
 2) C, infinity  
 3) C, focal plane  
 4) infinity , focal plane

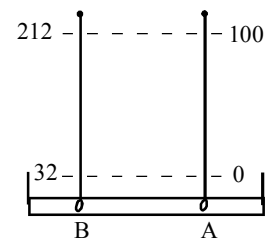
29. A wave is shown in the diagram. Amplitude and the wave length of this wave are,

- 1) 1 m , 1 m  
 2) 2 m , 2 m  
 3) 1 m , 2m  
 4) 2 m , 1 m



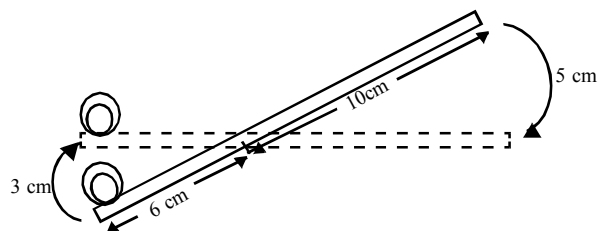
30. Figure A and B are 2 types of thermometers immersed in same liquid. If the reading of A is 40, What is the reading of B.

- 1) 40  
 2) 72  
 3) 44  
 4) 172



31. Velocity ratio of this machine in the diagram is,

- 1)  $\frac{6}{10}$     2)  $\frac{5}{3}$   
 3)  $\frac{10}{5}$     4)  $\frac{6}{3}$



32. Resistance of this resistor in the diagram given is  $320\ \Omega$  colour bands

A, B and C are respectively,

- 1) Red, Orange, Brown
- 2) Red, Orange, Black
- 3) Orange, Red, Black
- 4) Orange, Red, Brown.



Colour	Value
Black	0
Brown	1
Red	2
Orange	3

33. SI unit of a physical quantity is  $\frac{J}{kgK}$ . This is the unit for

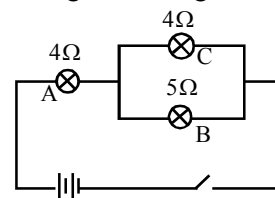
- 1) Energy change
- 2) heat capacity
- 3) Conductivity of heat
- 4) Specific heat capacity.

34. An uniform meter rod is hung in the middle point by a thread and 1 kg mass is hung 25 cm from one end. To keep it horizontally what the mass that has to be hung at the other end of this rod.

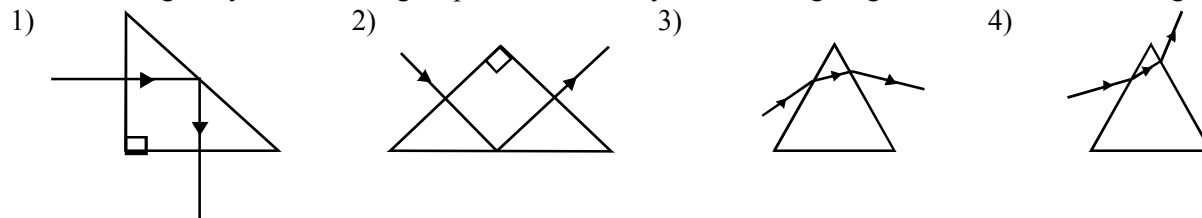
- 1) 1000 g
- 2) 200 g
- 3) 500 g
- 4) 100 g

35. An electric circuit is shown in this diagram the ascending order of the bulb according to the brightness is,

- 1) ABC
- 2) BAC
- 3) BCA
- 4) CBA



36. A coloured light ray travels through a prism is shown by the following diagrams. Which one is wrong.



37. Type of modulation used in AFM radio broadcasting is,

- 1) Amplitude modulation.
- 2) Frequency modulation.
- 3) High frequency modulation.
- 4) Ultra frequency modulation.

38. Reason for the melting of ice in the polar region is,

- 1) Acid rain
- 2) Green house effect.
- 3) Tsunami disaster.
- 4) Space exploration.

39. In the milk products which are imported in order to make it protein rich melamine ( $C_6N_5O_3$ ) is added to confirm that it is added a test is done considering a particular element. This element is,

- 1) Carbon
- 2) Nitrogen
- 3) Oxygen
- 4) Hydrogen.

40. When “Mattala” International airport was built there was big environmental problem arose in that area. This problem is,

- 1) Amount of carbodioxide increases
- 2) sound pollution
- 3) It's far away from cities.
- 4) Destruction of birds habitat.

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