T/KIN/KINNIYA CENTRAL COLLEGE - (N.S)

First Term Examination - 2020

GRADE 10

Index no: .....

Science

Time: 1.00 Hours

Part – I

➢ **Underline the most suitable answer**

1. Inorganic compound found in organisms
   1) Protein 2) Carbohydrate 3) Water 4) Lipid

2. The main element composition of main bio molecules.
   1) Carbon, Hydrogen , Nitrogen 2) Carbon, Hydrogen, Oxygen
   3) Hydrogen, Oxygen, Phosphorous 4) Hydrogen, Oxygen, Nitrogen

3. SI unit force based on basic units?
   1) $kgms^{-2}$ 2) $kgms^{-2}$ 3) kgm^2s^{-1} 4) $kgm^{-2}s^{-2}$

4. Every action bas an equal and opposite reaction this is .
   1) Newton's 1^{st} law 2) Newton's 2^{st} law
   3) Newton's 3^{rd} law 4) Gravitational law of Newton

5. Vitamin need to blood clotting
   1) A 2) K 3) C 4)B

6. Chemicals used to convert disaccharides into monosaccharaides
   1) Dilute HCl, $NaHCO_3$ 2) Dilute HCl, $CuSO_4$
   3) Dilute H_2SO_4, NaOH 4) Dilute H_2SO_4, $CuSO_4$

7. Water soluble vitamins are
   1) A, B, E, K 2) B, C 3) A, B, C 4) A, B, C, D

8. Elements reason for dying of trusses of the tips of the leaves .
   1) N 2) Zn 3) Ca 4) Fe

9. Protein that increases the rate of bio-chemical reactions in organisms
   1) Hemoglobin 2) Osein 3) Legumin 4) Enzyme

10. SI unit of speed
    1) kg 2) ms^{-1} 3) ms^{-2} 4) kgm^{-3}

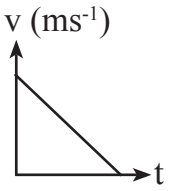
11. A change of position of a moving object is …….
    1) Velocity 2) Speed 3) Acceleration 4) Displacement

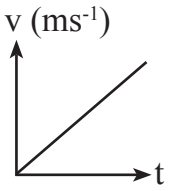
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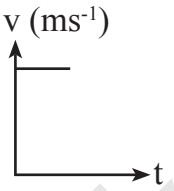
12. Scalar quantities are
    1) Distance, mass, speed
    2) Distance, Weight, Displacement
    3) Force, Weight, Displacement
    4) Force, Distance, Speed

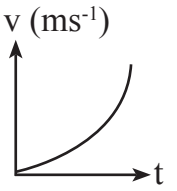
13. Acceleration is
    1) Rate of change of displacement
    2) Rate of change of velocity
    3) Rate of change of distance
    4) Rate of change of speed

14. Velocity – time graph for the motion of an object under the gravity

    1) 

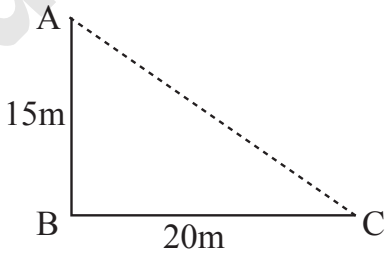
    2) 

    3) 

    4) 

15. Simple amino acid is
    1) Glycine
    2) Keratin
    3) Albumin
    4) Myosin

16. The figure illustrates that a path of child from A to B to the C. Find the displacement of the child
    1) 25 m
    2) 40 m
    3) 50 m
    4) 70m

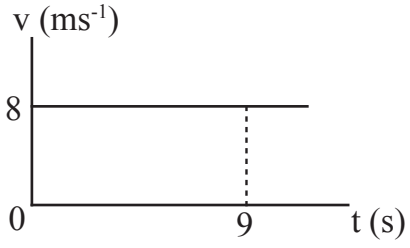


17. The element in nucleic acid is
    1) Mg
    2) Fe
    3) I
    4) O

18. Organelle without a member is
    1) Mito chondrion
    2) Ribosome
    3) Vacuole
    4) Nucleus

19. Velocity of an object change from O to 20ms-1 in 5 second. Find the acceleration of that object?
    1) $^{50}/_{20}$ ms^{-2}
    2) 5 x 20ms^{-2}
    3) $^{20}/_{5}$ ms^{-2}
    4) (5+20) ms^{-2}

20. Find the displacement of the object in 9 seconds
    1) 8m
    2) 17m
    3) 72m
    4) 9m



21. Who was introduced the planetary model of the atom
    1) Niels Bohr
    2) J.J. Thomson
    3) Chadwick
    4) Earnest Rotherford

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22. The element used to make transistor and diode
1) B 2) Si 3) Ge 4) Sb

23. Isotope of hydrogen which has same number of atomic number and mass number
1) Proteium 2) Deuterium
3) Tritium 4) Electronium

24. Metals which are found as native metals in nature are
1) Na, Fe 2) Mg, Al 3) Po, Ag 40 K, Cu

25. (a) Posses four energy levels
(b) Posses I electron in last energy level
(c) Has higher atomic radius
Find the suitable element
1) Ca 2) Zn 3) K 4) Cu

26. Element which has higher ionization energy
1) Ca 2) Ar 3) Ne 4) He

27. The element which produce amphoteric oxide
1) Na 2) Mg 3) Si 4) Al

28. ……..… is used dye denim trouser materials
1) Na 2) S 3) N 4) P

29. Sugar which is not found in plants
1) Sucrose 2) Mdtose 3) Lactose 4) Fructose

30. Element which are produce strong base
1) Mg, Ca 2) Na, K 3) P, S 4) C, Si

31. An object with the mass of 15 kg mores at avelocity $4ms^{-1}$. Calculate the momentum of that object?
1) 15 x 4 kg ms^{-1} 2) 154 kg ms^{-1}
3) 15 1000 kg ms^{-1} 4) 415 kg ms^{-1}

32. ….. has double helix structure
1) Amino acid 2) Deoxy ribo nucleic
3) Ribo nucleic acid 4) Fatty acid

33. Institute where reducing fraction
1) Tires with grooves
2) Inserting balls that could roll between the contact surface
3) Increasing the roughness of correct surfaces
4) Shoes with groves

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34. ……. is the frictional fire between the surface of two bodies in contact with one another.
    1) State frictional force
    2) Dynamic frictional force
    4) Limiting frictional force
    4) State and Dynamic frictional force

35. Weight of an object with the mass of 25 kg
    (Gravitational acceleration is $10ms^{-2}$)
    1) 250 N 2) 400 N 3) 1000 N 4) 2500 N

36. A element X is produced $X_3 (PO_4)_2$. So what is the chemical formula for the carbonate of X?
    1) $X_2 CO_3$ 2) $X (CO_3)_2$ 3) XCO_3 4) X_3CO_3

37. Factor that not affect limiting frictional force
    1) Contact area 2) Nature contact surfaces
    3) Normal reaction 4) 1 and 2 only

38. Photosynthetic pigment in plants
    1) Ribosome 2) Chlorophyll
    3) Chitin 4) Cellulose

39. Deficiency symptoms of Ca in plants
    1) Slow growth 2) Slow growth of roots
    3) Dying tips of the leaves 4) Chlorosis in tender leaves

40. Which is mot a effect of change of balance
    1) Nature
    2) Affects in water cycle
    3) Spreading of pests
    4) Destruction of animals for the countries

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Science

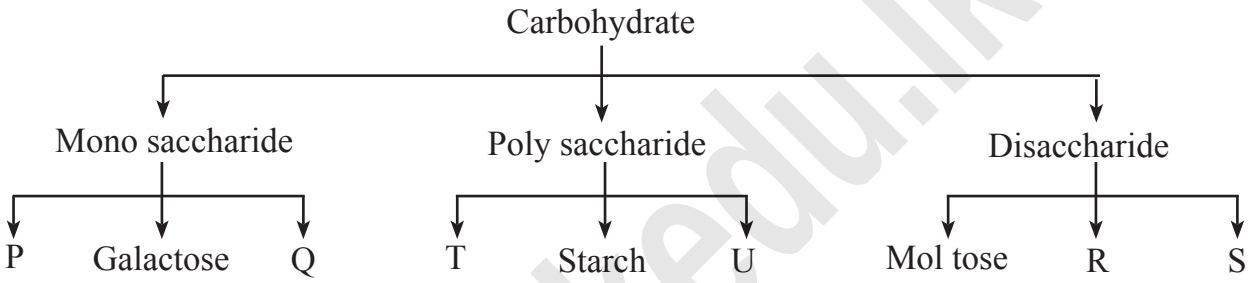
Time: 3.00 Hours

Part – II - A

Consider

- **Answer 4 Questions in part A**
- **Answer 3 Questions in part B**

01. Answer the following questions using given diagram



1) Give examples for P, Q, R, S, T, U

P - ..... Q - .....

R - ..... S - .....

T - ..... U - .....

2) Write the structural unit of carbohydrate

.....

3) Which is help to produce energy during cellular respiration?

.....

4) Name the monosaccharaides in dairy products?

.....

5) Which is not sweet sugar?

.....

6) Name the disaccharide in germinating seeds?

.....

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7) Write the disaccharide which is not in plants?

.....

8) Name the polysaccharide helps to prevent constipation?

.....

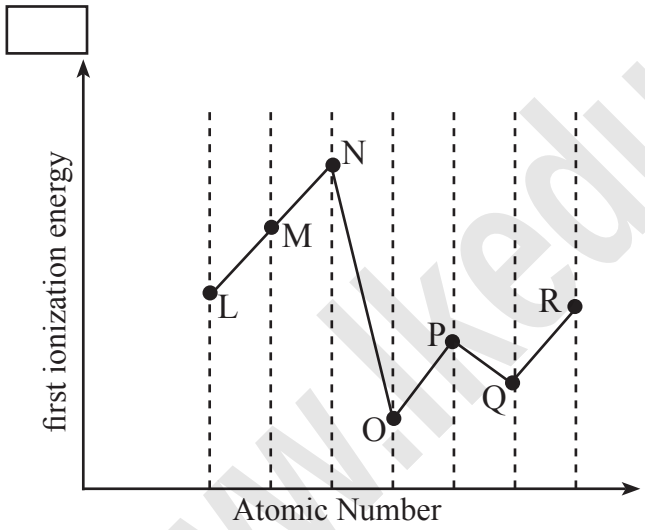
9) Which polysaccharide stores in human liver

.....

10) Name the type of carbohydrate with the chemical formulae C_{12} H_{22} O_{11}

.....

02. The change of first lionization energy of consecutive elements of second, third period in periodic table is given here (Symbols are not standard)



1) What do you mean by first Iionization energy?

.....

2) Write the unit of quantity mentioned in axis Y?

.....

3) Write the electronic configuration of M?

.....

4) Name the elements which have valency 2?

.....

5) Write the chemical formula of compound which is made by L and Q

.....

6) Write the type of bond in above mentioned (question 5) compound?

.....

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7) Give the lionization of Na as an equation?

.....

8) Which is noble gas?

.....

9) Which element has higher electronegativity?

.....

10) Name elements has higher electronegativity?

.....

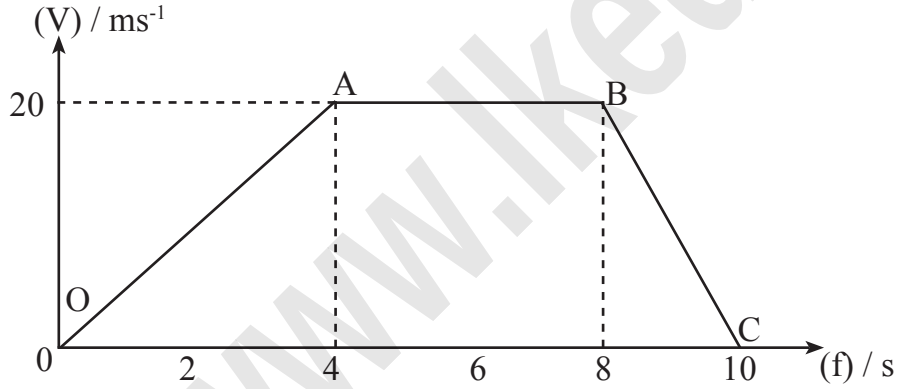
11) Which elements has low ability to create chemical bonds?

.....

12) Write the standard symbols of all given element in graph?

.....

03. Velocity – time graph for the motion of a vehicle is giver here



1) What can you say about the motion of the vehicle in first 4 s?

.....

2) Write the English letter for acceleration?

.....

3) How long does the vehicle moving with deceleration?

.....

4) What is the maximum velocity of vehicle

.....

5) How long has it taken to travel with maximum velocity?

.....

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6) Find the acceleration during first 4 s?

.....

.....

.....

7) Find the distance of vehicle travel with acceleration

.....

.....

.....

8) Find the deceleration during last 2 s ?

.....

.....

.....

9) Write a formula to calculate the total distance of vehicle?

.....

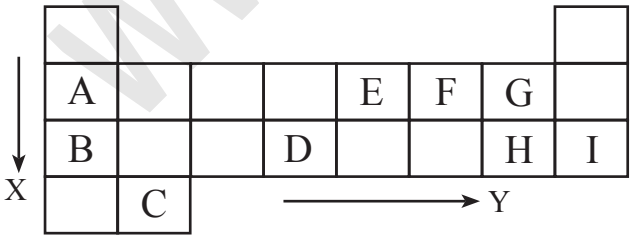
10) Find the total distance of that vehicle using above mentioned formula?

.....

.....

.....

04. Answer the questions using given periodic table. (symbols are not standard)



1) Who was introduced modern periodic table

.....

2) Which indicate by X ?

.....

3) Write the metals?

.....

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4) Write 02 elements which has valency 2 ?

.....

5) Name the element which has higher volume in the atmosphere?

.....

6) Write the reason for the element I does not involve in chemical reaction?

.....

.....

7) Write 02 native metals which are not given here?

.....

.....

Electronic configuration of M is 2, 8, 2

8) Find the group of M in periodic table

.....

9) Find the period of M in periodic table

.....

10) Indicate the element M in the given periodic table

.....

11) Write the electronic configuration of C?

.....

12) In what way modern periodic table was created?

.....

13) Write 02 elements which has similar properties?

.....

14) Name an element which has 4 electrons in last energy level?

.....

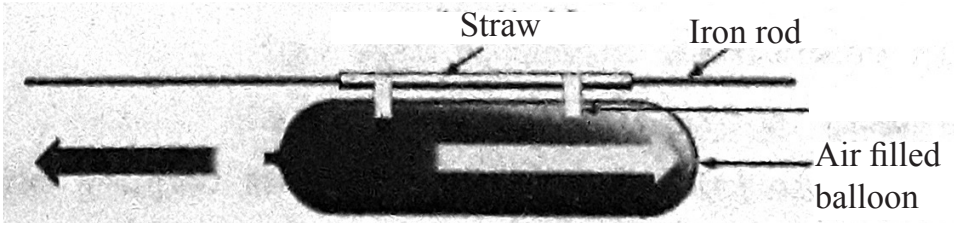
15) Write an advantage of periodic table?

.....

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Part – II - B

05. Write the following questions based on newton's law.

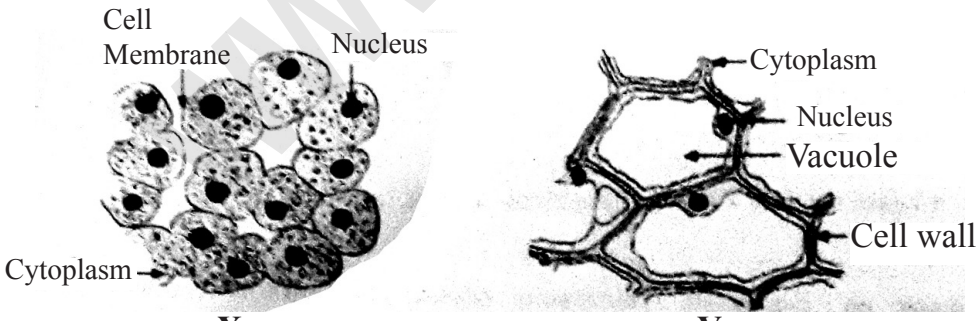


1) This experiment has carried out of find which newton's law?
2) Write that law?
3) Which is reaction of this experiment?
4) Which is reaction of this experiment?
5) Write the observation when removing the thread that closed the opening of the balloon?
6) Write the change to make the balloon move faster in this setup?
7) Write 02 instances where this newton's law applied?

The acceleration (a) of a body directly proportional to the unbalanced force (F) acting on it while it is inversely proportional to its mass (m)

8) Create a formula using a, f and m?
9) Write the unit of a , f and m?
10) What is the force required to give an acceleration of 2ms-2 to a 5kg mass?

06.



1) Define 'cell'
2) Who was observed a section of a cord using a microscope and named it as cell?
3) Identify X and Y ?
4) Which is outer most part of X ?
5) Which is outer most part of cell Y ?
6) Write 02 substances to create the cell wall of plant?
7) Write a man difference between animal cell and plant cell?

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Answer the following questions using the given organelles

Cell wall plasma membrane chloroplast	Vacuole Ribosome Golgi body	ER mitochondrion

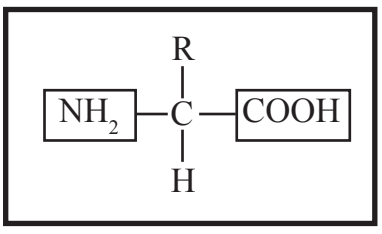
8) Name the non – living organelle in a cell?
9) Write an organelle related to secretion?
10) Name an organelle helps to produce energy?
11) Write a function of chromosomes?
12) Write the number of chromosomes in human?

07. Answer the questions using following elements

Sodium	Silicon	Sulphur
Magnesium	Boron	Carbon
Aluminum	Nitrogen	

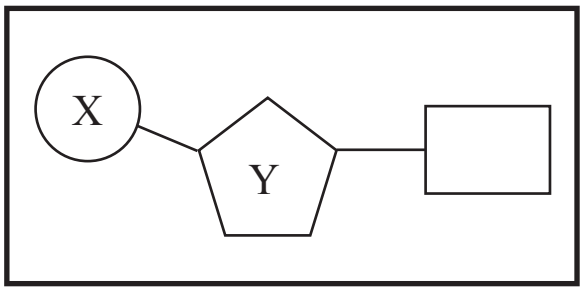
1) Write 02 elements which create positive ion?
2) Write a soft element reacts rapidly with air and water?
3) How the above mentioned element store in laboratories?
4) When heated in air, it born with a bright white flame. Find the element?
5) Write 02 elements used to produce an alloy called Magnesium?
6) Name an element used to rulcanize rubber?
7) Give an element used to produce solar cells?
8) Name an element, produce amphoteric oxides?
9) Write an element, produce basic oxides?
10) What do you mean by allotropy?
11) Write 02 element which showing allotropy?
12) Write the chemical formula of magnesium oxide?

08.



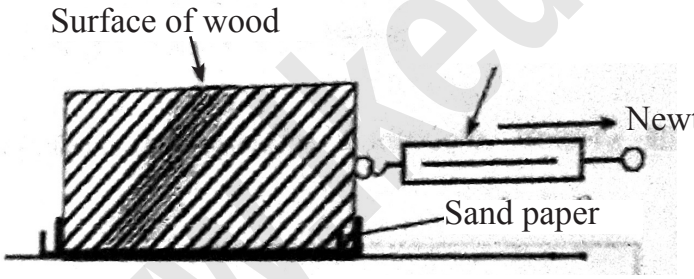
1) Identify the structure given here?
2) Name the bio molecule produce by the polymerization of above structure?
3) Write 02 elements indicated by R ?

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4) Identify the given structure?
5) Lable X and Y ?
6) The structure shown in the figure is the structural unit of ……. ?
7) Write 02 main bio molecule formed by this structure?
8) Which helps to synthesis of protein?
9) Which one transferring genetic information?
10) Write one is elements found in this structure other than C, H, O ?

09. The following experiment made to identify the factor affecting limiting frictional force



1) What is limiting frictional force?
2) The experiment was aimed at identifying which factor influences the limiting frictional force?
3) Write an other factor affecting limiting frictional force?
4) Write a factor which is not influence in limiting frictional force?
5) What will happen in limiting frictional force, when increasing the size of rough sand paper.
6) Why block of wood does not move, when applying force less than limiting frictional force?
7) The newton balance shown 3N when the block of wood is immovable. Find the frictional force between block of wood and table.
8) Name the frictional force when the block of wood is immovable?
9) How do you call the frictional force of two bodies in contact with one another?
10) Write an instance where increasing frictional force?

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