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உவா மாகாண கல்வித் திணைக்களம்
Uva Provincial Department of Education

0926

Revision test - 2023(2024)

Grade11	Science - I	Time : 1 Hour

01. The SI unit of measuring temperature is ,

i) ℃ ii) °F iii) W iv) K

02. Which of the following is not a protein?

i) Moltase ii) Insulin iii) Chitin iv) Glucogen

03. Correct electronic configuration of Al^{3+} is ,

i) 2,8,3 ii) 2,8, iii) 2,8,8 iv) 2,3

04. Select the correct scientific name written according to the standards of binomial nomenclature.

i) *Mesua nagassarium* ii) *Mesua Nagassarium* iii) m*esua nagassarium* iv)*MESUANAGASSARIUM*

05. The compound which release H^+ in an aqueous solution is,

i) K_2O ii) Na_2O iii) Cl_2O_7 iv) $NaCl$

06.

The resultant force acting on the object is ,

i) 0N ii) 6N iii) 11N iv) 16 N

07. A component of gastric juice is ,

i) Pepsin ii) Amylase iii) Trypsin iv) Lactase

08. The catalyst using to produce margarine by hydrogenation of unsaturated fatty oil is ,

i) Porous iron ii) Hydrogen iii) Platinum iv) Nickel

09. Respiratory structure of reptilian is ,

i) Mouth ii) Lungs iii) Gills iv) Wet skin

10.  The device showing in the diagram is using for,

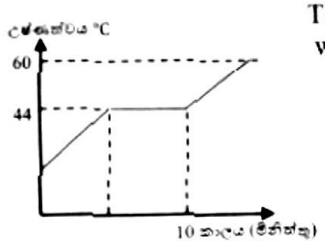
i) Changing the temperature of the circuit
ii) To maintain a constant current I the circuit
iii) To change the current flowing through the circuit
iv) To measure the current flowing through the circuit

11. The pair of molecules with equal number of lone pairs is,

i) H_2O , NH_3 ii) HCl, NH_3 iii) CO_2, HF iv) CO_2, O_2

12. *The function of below organelle is ,*

i) Photosynthesis
ii) Producing secretory substances
ii)Aerobic respiration
iv) Controlling cellular activities

13. 

The graph shows how the temperature of a solid substance changes when heat is supplied to it.What is the melting point of this substance?

i) 25°C ii) 44°C iii) 60°C iv) 80°C

14. When heat is supplied to a Cu vessel of 3kg ,its temperature increased by 25°C.Calculate the heat energy supplied to it. (Specific heat capacity of Cu= 380 $J\,kg^{-1}°C^{-1}$)

i) $3 \times 380 \times 25$ J ii) $3 \times 380 \times 298$ J iii) $3 \times 380 \times 30$ J iv) $\frac{380}{3} \times 15$ J

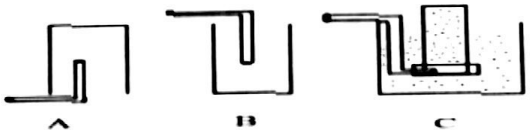
15. A sexually transmitting disease causing by a bacteria only is ,

i) Herpes ii) AIDS iii) Syphilis iv) Silicosis

16. The maximum current flowing through a bulb marked as 12V, 60W is,

i) $\frac{60}{12}\,A$ ii) $\frac{12}{60}\,A$ iii) $12 \times 60\,A$ iv) $60\,A$

17. The gases collecting from below methods respectively are ,



i) O_2, H_2, CO_2 ii) CO_2, O_2, H_2 iii) H_2, CO_2, O_2 iv) CO_2, H_2, O_2

18. Which of the following factor/factors does not affect for the friction?

A) Surface area B)Nature of the surface C) Nature of the motion

i) Only A ii) A and C iii) Only B iv) B and C

19. Select the response containing a granulocyte and a non granulocyte.

i) Monocytes, Basophils ii) Neutrophils , Lymphocytes
iii) Monocytes, Lymphocytes iv) Neutrophils , Basophils

20. What is the volume of acetic acid required to prepare 500 cm^3 of an acetic solution with composition $^1/_{25}\left(\frac{v}{v}\right)$.

i) 5 cm^3 ii) 20 cm^3 iii) 100 cm^3 iv) 500 cm^3

21. Which of the following is correct about photosynthesis?

i) Carbon dioxide gas enter to the plant leaf through stomata by osmosis.
ii) The single membrane organelle chloroplast contains chlorophyll
iii) Plants absorb water through root hair by osmosis.
iv) Photosynthesis can be done artificially

Answer questions 22 and 23 regarding the equation given below.

$$X + YSO_4 \longrightarrow XSO_4 + Y$$

22. Suitable metals for X and Y are,

i) Ag, Cu ii) Pb, Zn iii) Pb, Fe iv) Zn, Cu

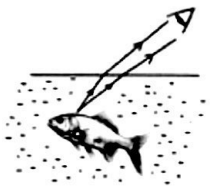
23. What is the type of chemical reaction given above?

i) Chemical combination reaction
ii) Single displacement reaction
iii) Double displacement reaction
Iv) Chemical decomposition reaction

24. Which of the following is not a feature of stock in grafting?

i) Having a strong root system
ii) Having an even growth
iii) Withstand the environmental changes
iv) A variation with favorable characteristics

25.



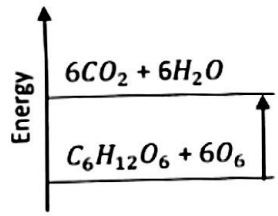
The diagram shows how a fish is visible inside a pond .According to the ray diagram,

i) Apparent depth is greater than real depth
ii) Total internal reflection occur
iii) The fish is seen in a less depth than the real depth
iv) Water is a rare medium than air

26. Select the correct energy diagram correspond to below equation of producing energy in organisms.

$$C_6H_{12}O_6 + 6O_6 \longrightarrow 6CO_2 + 6H_2O + ATP$$

i)



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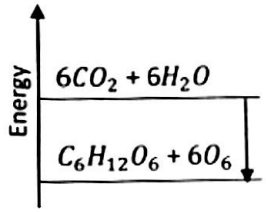
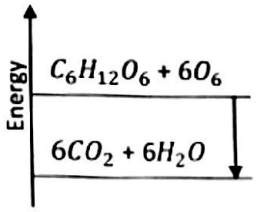
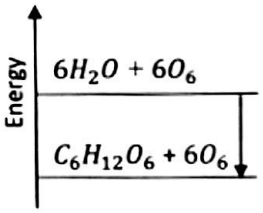


iii)



iv)



27. Which of the following factor affecting for photosynthesis cannot test in the laboratory?

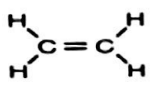
i) Water ii) Sunlight iii) Chlorophyll iv) Carbon dioxide gas

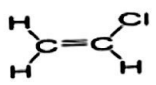
28.

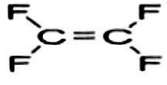
The diagram shows a boat of 200 N and a person of 50 kg floating on water. What is the upthrust acting on the boat?

i) 2050 N ii) 2000 N iii) 2500 N iv) 250 N

29. Several monomers are given below. The polymers form by polymerization of them respectively are ,







i) Polythene,Teflon,PVC
ii) PVC ,Teflon,Polythene
iii) Polythene,PVC,Teflon
iv) Teflon ,Polythene,PVC

30. The kinetic energy of an object with mass 8kg and moving with a velocity $4ms^{-1}$.

i) 4 J ii) 12 J iii) 32 J iv) 64 J

31. Select the answer containing living cells only.

i) Tracheid, Companion cells, Sieve tube cells

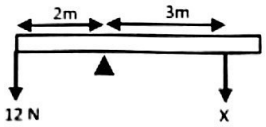
ii) Parenchyma cells ,Xylem fibres, Xylem parenchyma

iii) Sieve tube cells , Xylem parenchyma , Collenchyma

iv) Sclerenchyma ,Tracheids ,Sieve tube cells

32. The carbonate of X is XCO_3 .What is the formula of the chloride of X,

i) XCl_2 ii) XCl iii) X_2Cl iv) X_2Cl_3

33. 

If the rod is balanced as shown in the diagram , Find the value of X.

i) 12 N ii) 8 N iii) 18 N iv) 6 N

34. Select the response with correct structure-function relationship.

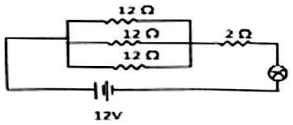
i) Cerebrum – Body balance ii) Medulla oblongata- Perceiving temperature

iii) Hypothalamus – Controlling the respiration iv) Cerebellum – Controlling voluntary muscles

35. When Copper sulphate is electrolyzing using carbon electrodes,

i) Cu deposits on cathode ii) The blue colour of the solution does not change

iii) Cu deposits on anode iv)Gas bubbles evolve from negative electrode

36. 

What is the amount of current passing through the circuit according to above diagram?

i) 12 A ii) 38 A iii) 3 A iv) 2 A

37. A gas releasing to the atmosphere by burning of coal, petroleum and volcanic eruptions is,

i) NO_2 ii) O_3 iii) SO_2 iv) NH_3

38. Which of the following is not a reason for energy crisis?

i) Wastage of energy ii) Excessive use of energy

iii) Political issues iv) Influence of war

39. Plant ⟶ Criket ⟶ Frog ⟶ Cobra

Which organism from above food chain contains the least amount of solar energy?

i) Plant ii) Criket iii) Frog iv) Cobra

40. A direct effect of environmental pollution is ,

i) Bio magnification ii) Desertification

iii) Reduction of productivity of plants iv) Causing health issues

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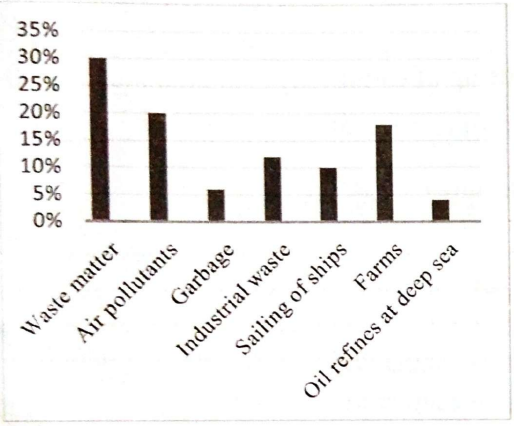
Revision Test – 2023(2024)

Grade 11	Science -II	Time : 3 Hour

0910

Part - A

01) A) Ocean environmental pollution is a major pollution take place at present. Some reasons for above pollution are represented in below graph..



i) Which factor affects ,

a) More on marine pollution - .....

b) Less on marine pollution - .....

ii) Mention the factor and its percentage which affects more on the destruction of coral reefs .....

iii) State another factor instead of given factors which contributes for the marine environmental pollution

.....

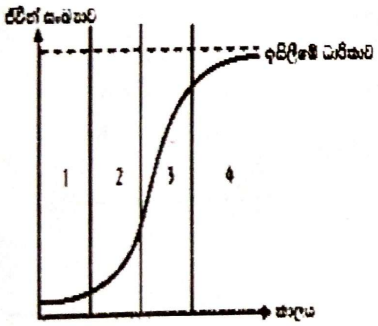
iv) Write another direct effect of ocean environment pollution.

.....

B) i) A pond is an ecosystem. Write a food chain with 4 links near a pond.

.....

ii) Below graph shows how the number of a fish species in a unit area changes with time.



a) What is the term use to introduce the number of organisms present in a unit area? .....

b) What is the reason for decreasing the rate of growth of population in phase 3?

.....

c) A green colour foam was observed in a part of the pond. How do you introduce this effect?

.....

d) Name an ion causing above effect.

.....

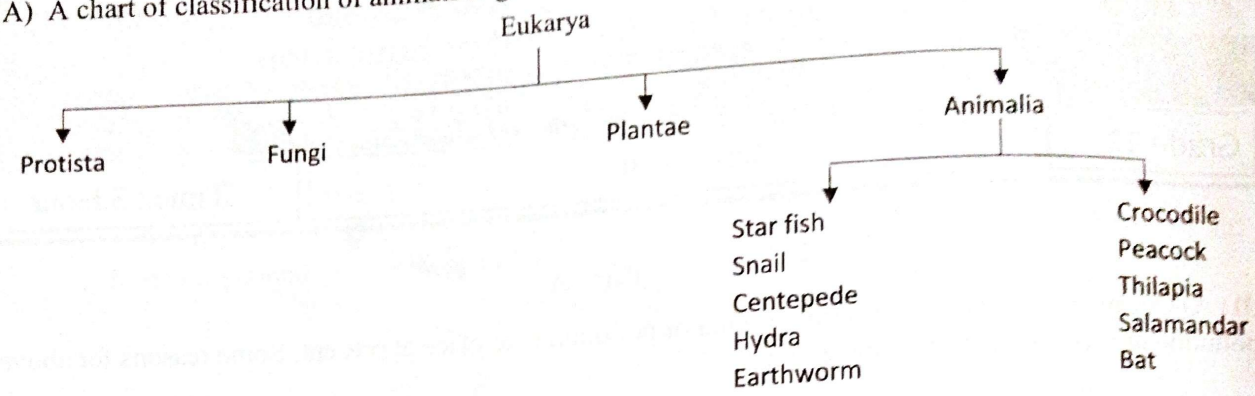
C) The amount of consumption of materials has increased with the increasing of population.Therefore the amount of waste matter disposing to the environment has been increased.4R method is commonly using to manage waste matter.Complete below table related to this method.

Instance	4R method
Producing fuel by recycling polythene	i .....
ii	Replace

iii) Name the international protocol established to reduce the green house effect cause by burning of garbage.

.....

02) A) A chart of classification of animals is given below.



Answer below questions according to above chart.

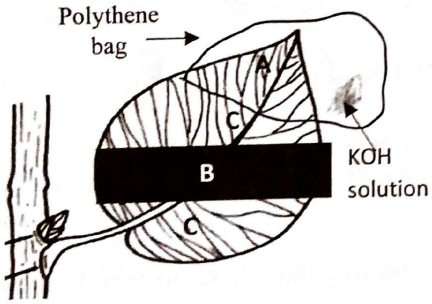
i) Name the kingdom of organisms having a cell wall made up of chitin..... .....

ii) Into which kingdom does Marchantia belongs?.....

iii) Write the group/phylum of the animals having below features.

a) Body is divided into tagma : .....
b) 3 chambers in heart : .....
c) Possess a ganglion : .....
d) Complete double circulation : .....

B



i) Following setup was prepared to test some factors necessary for photosynthesis. Which factors necessary for photosynthesis can be tested using this setup?

.....
.....

ii) What is the reason for keeping above plant in a dark place for 48 hours before the experiment?

.....
.....

iii) What are the colours appear in below parts of the leaf after the starch test?

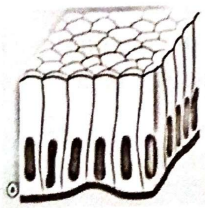
Part A - ..... Part B - .....

C) A tissue is one of the organizational levels of organisms.

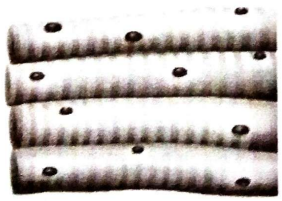
i) Define the term "Tissue"

.....

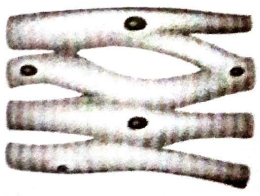
ii) Answer the questions relevant to below pictures.



P



Q



R

a) Multinucleated, Striated - .....
b) Obtain nutrition from basement membrane- .....
c) Intercalated discs are presents - .....

03) A) Below table contains some elements between the atomic number 1-20.Given symbols are not their real symbols. Answer below questions using given symbols and details.

Element	P	Q	R	S	T	U	V	W	X
Atomic number	n-4	n-2	n-1	n	n+2	n+3	n+4	n+5	n+6

S is an element belonging to 3rd period and it's valancy is 2 .

i) Show the atomic number and mass number of S in the standard method.(Chemical notation).....

ii) What are the elements belonging to the same group? .....

iii) Which element is using to vulcanize rubber? .....

iv) Write the formula of the compound form by the reaction between elements R and W?.....

v) Which element can form both diatomic and triatomic molecules?.....

B) Part of the activity series is given below.

K
.....
Ca
.....
Al
Zn
Fe
Sn

i) On which basis does the activity series is created?

.....

ii) Write correct elements to fill the blanks it this activity series

iii) Answer below questions according to the activity series.

a) Using to galvanize iron - .....

b) Makes an amphoteric oxide- .....

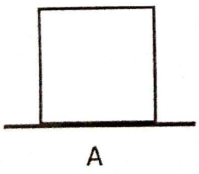
c) Use to produce antacids - .....

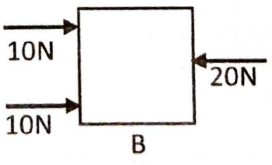
C) Fill in the blanks using the words in brackets.

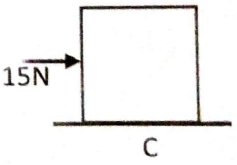
(Unstable, Chemical bonds, Ions, Ionic bonds, Stable electrons, Stable, Electrons, Valance, Protons)

..... are the bonds for between ..... Or atoms to make the atoms ..... by rearranging the .....in ..... Shell to become ..... .The bonds form between oppositely charged ions are called as .....

04) A) Consider below objects. Mass of each object is 120kg.







A is in rest on the table.

Forces are acting on B and C as shown in the diagram.

C just started to move.

i) Mark forces acting on A.

ii) What type of a motion is shown by B?

.....

iii) Calculate the acceleration of C due to the force acting on it.

.....

.....

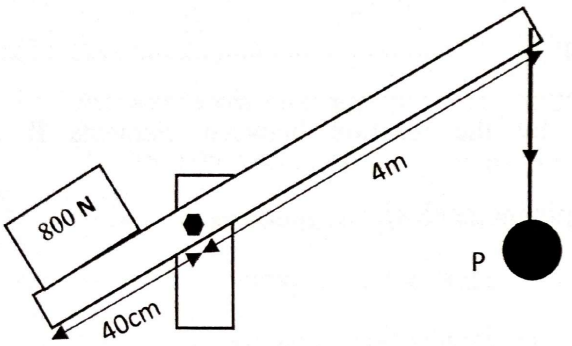
iv) Cut off the wrong word in below sentences.

When an equal load is kept on C,

a) It's acceleration decreases/Increases

b) It is explained by Newton's First/Second law.

B)



Below picture shows a road barrier. It,s load is 800N.

i) Calculate the moment caused by the load.

.....

.....

.....

ii) Write a statement for the moment caused by P on the gate.

.....

iii) Find the value of P in relation to above statement.

.....

.....

.....

iv) Suggest a method to reduce the force than P in above instance.

.....

v) a) What is a "Couple of force"?

.....

.....

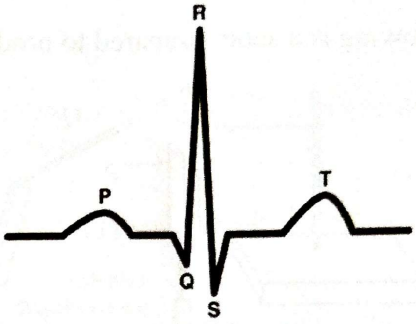
b) Give an example instance of using a couple of forces.

.....

Part B - Essay

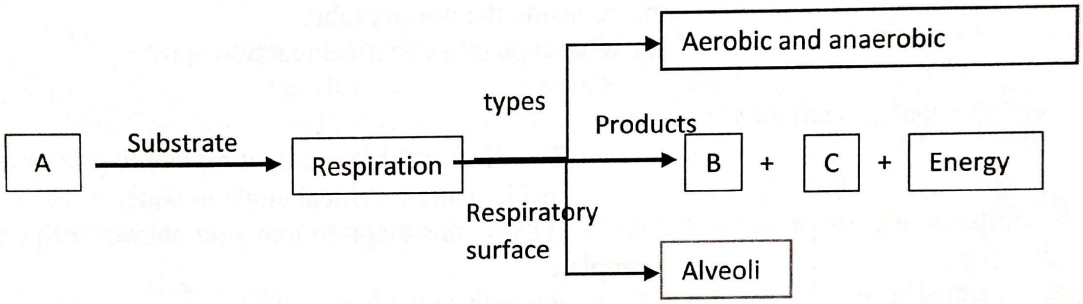
- Answer 3 questions from 5,6,7,8,and 9.

5. (A) Below diagram shows an electrocardiogram of a person.



i) What is "Heart beat"?
ii) Name the stages P,Q,R and S in above electrocardiogram.
iii) State the time consuming for stage P.
iv) The pressure exerted by blood on the walls of blood vessels is known as "Blood pressure" .
a) What is the blood pressure of a healthy adult?
b) How does systolic blood pressure cause?
c)Write a reason for increasing the above (a) mentioned blood press

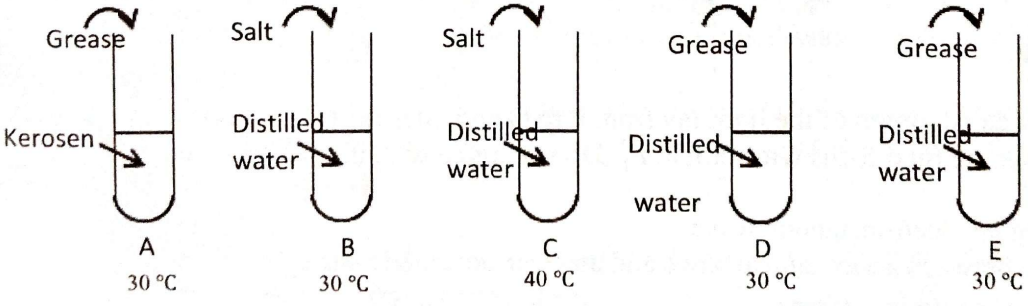
(B) Following is a flow chart associated with human respiratory system.



i) Name A,B,C in above flow chart.
ii) What is the criteria using to classify the types of respiration?
iii) Write the types of anaerobic respiration take place in animals and plants and write the product in each type.

(C) The autonomous nervous system supply nerves to body organs which control involuntarily.
i) Name the main 2 parts of autonomous nervous system.
ii) Which nervous system acts dominantly in an emergency condition?

6 (A) Following practical was prepared by a group of grade 11 students to investigate factors affecting for the solubility of a solution.



i) What is "Solubility"?
ii) Following are the factors affecting for the solubility. Write a suitable test tubes we can use to test each factor.
a) Temperature
b) Nature of the solvent
c) Nature of the solute
iii) A closed plastic soda bottle is difficult to press. Explain the reason.

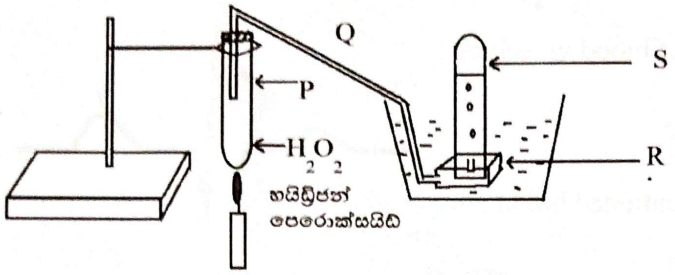
(B) 500 cm^3 of a glucose solution should be prepared with the concentration 1 $moldm^{-3}$.

i) What is the mass of glucose need to prepare above solution?

ii) Name 2 laboratory instruments necessary to prepare above solution.

iii)State 2 things to be considered when preparing a volumetric solution.

C) Following is a setup prepared to produce a gas in the school library.



i) Name P,Q,R and S of the diagram.

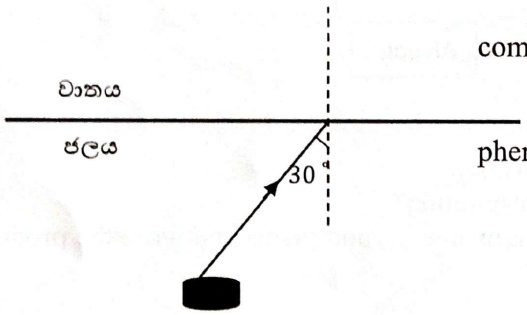
ii) What is the gas producing in this setup?

iii) State a method of identifying above gas.

iv) Write a balanced chemical equation for the reaction take place inside the boiling tube.

v) What type of a chemical reaction is it?

7) (A)



The diagram shows a light ray coming from an object inside water.(Critical angle in water is 49 °)

i) Copy this diagram into your answer script and complete the path of the light ray.

ii) Write an observation we can take due to above phenomena

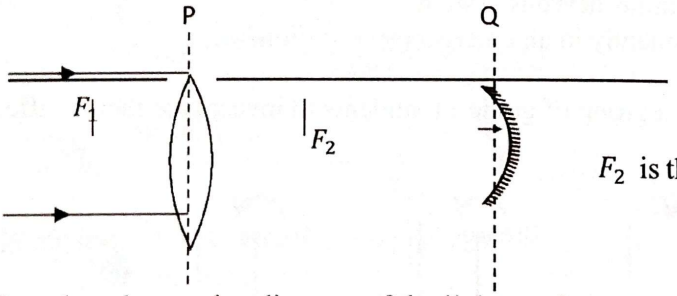
iii) When the incident angle is 55 °,

a) What can we observe?

b) Name an incident where it is useful.

c) What is the value of the angle of reflection when the angle of incidance is 49 ° ?

iv)



This setup was prepared to study about the travelling of light rays.

F_2 is the common focus for both P and Q devices.

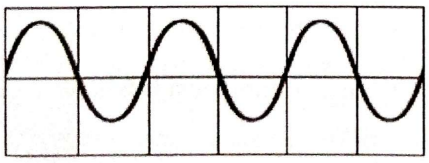
a) Complete the ray day diagram of the light ray from P to Q and after the Q.

b) A student said that the final focus will form at F_1 .Do you agree with it.

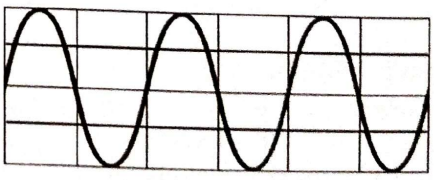
(B) Visible light is a type of an electromagnetic wave.

i) State a difference between a mechanical wave and an electromagnetic wave.

ii)



A



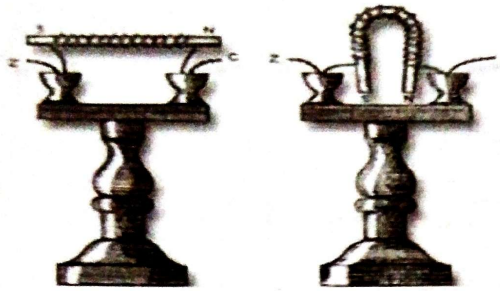
B

Diagrams of 2 mechanical waves are given above. Write,

a) A similar feature of them

b) A difference between them

c) Write an example for a mechanical wave.

(C) 

The diagram shows models of 2 electro magnets displayed in a museum.

i) Which material is more suitable to prepare an electromagnet? A soft iron rod or a steel rod?

ii) Suggest a method to increase the intensity of magnetism in this electromagnet.

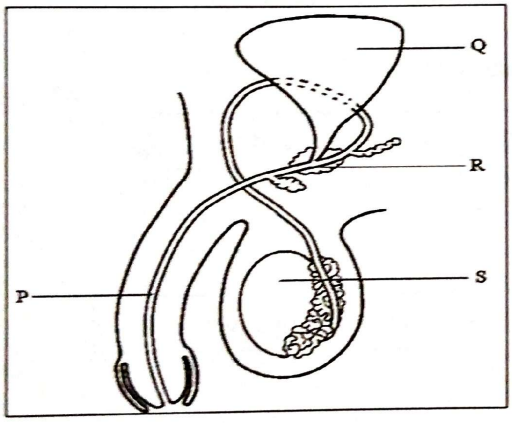
iii) State 2 instances where electro magnets are using.

iv) A current carrying conductor was kept in a magnetic field.

a) Which principle/law is using to identify the direction of force on the conductor?

b) Suggest a method to increase the magnitude of above force.

8) (A) Reproduction is the process of producing a new generation from an existing generation.



i) What are the main 2 types of reproduction take place in organisms?

ii) Answer following questions related to the given diagram.

a) What is the hormone producing by the structure named as "S"?

b)What is the structure named as "R" ?

c) Write the function of "R" .

iii) Hemophilia is a disease caused by a sex linked gene.

a) What is the main symptom of the disease Hemophilia?

b) Prepare a punnet square to predict how the disease is inherited to a child born to a carrier mother and a healthy father for hemophilia.

(h – recessive gene responsible for the disease / H –Dominant gene responsible for the disease)

c) State the genotype ratio between the diseased, carriers and healthy off springs for hemophilia in above crossing.

B) Below table provides details about a motion of a car of 200kg with an error.

Velocity ms^{-1}	0	5	10	15	15	15	15	7.5	0
Time	0	1	2	3	4	5	6	7	8

i) Draw a velocity-time graph relevant to above details.

ii) Calculate the acceleration in first 3 seconds.

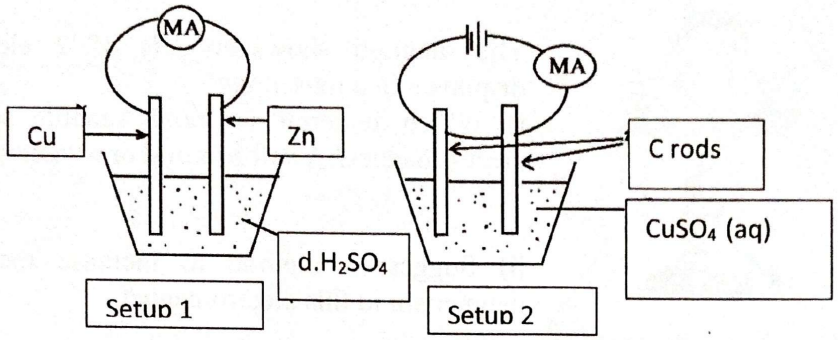
iii) a. What type of a motion is shown from 3s to 6s?

b. Find the distance travelled by the in above duration (3s-6s).

c. What is the unbalanced force applying on the car in above duration (3s-6s)

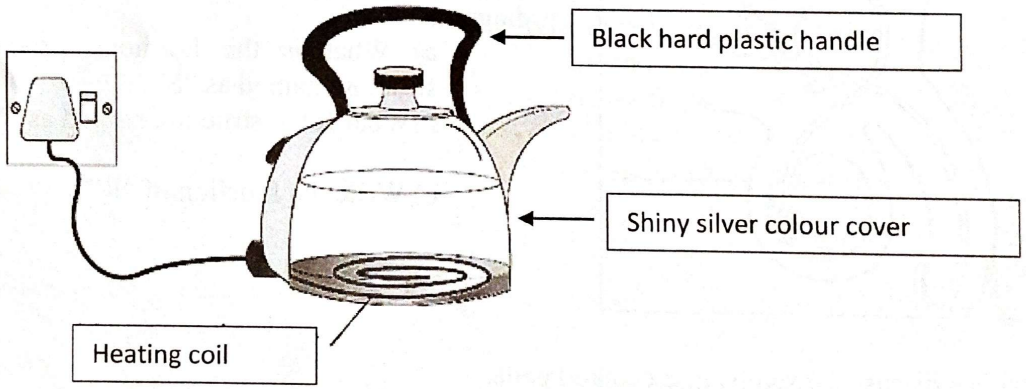
iv) An unbalanced force of 1500N was applied to stop the car during last 2 seconds. Write 2 features of the road to stop the car that quickly by applying brakes.

9) (A) Following are 2 setups prepared for a science exhibition.



i) Identify and name the setups 1 and 2.
ii) Write an observation we can take when setup 1 is activated.
iii)Which metallic strip undergo oxidation in setup 1?
iv) Name the ions present in the solution of setup 2.
v) Write the anodic reaction in setup 2.
vi) Name another metallic electrode we can use instead of carbon rods in setup 2.
vii) Mention a fact we should consider when selecting electrodes for setup 2.

B) Diagram shows an electric kettle using to boil water in Nihar's house.



i) Write uses of below parts of this instrument.
   a. Hard plastic handle
   b. Shiny silver colour cover

ii) A voltage of 240V and a current of 5A is supplying to above instrument.
   a. Calculate the power of the kettle.
   b. Find the amount of energy produced by it in 2 minutes.

iii) A 3 pin plug is connected to this instrument. What is the advantage of connecting a 3 pin plug?
iv) The heating coil is made up of a nichrome mixed alloy.
   a. Write 2 special features that the heating coil should possess.
   b. From which device of the distribution box does current is supplying to this instrument?

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