PROVINCIAL DEPARTMENT OF EDUCATION - NORTH WESTERN PROVINCE

SECOND TERM TEST - 2019

SCIENCE

Grade 08 **Two Hours**

Name / Index No. :

Part I

- **Answer all the questions on the paper it self. One mark is allocated for each.**
- **Underline the most suitable answer from question number 1 to 25.**

01. What is the correct answer which contains only the materials that attract to a magnet ?

(1) Copper and Gold (2) Graphite and Copper

(3) Iron and Chromium (4) Iron and Gold

02. Select the answer with the plants only doing their propagation by roots,

(1) Jack and Breadfruit (2) Curry leaves and "Belli"

(3) "Belli" and Jack (4) Mango and Curry leaves

03. The factors mentioned in the fire triangle are,

(1) Heat, Oxygen, Water (2) Oxygen, Water, Heat

(3) Heat, Fuel, Water (4) Heat, Fuel, Oxygen

04. Choose the type of infections caused by viruses and bacteria respectively.

(1) Measles and Tuberculosis (2) Leprosy and Dengue

(3) Leprosy and Measles (4) Malaria and Leprosy

05. Select the category of the living organism shown in the figure.

(1) Bacteria (2) Fungi

(3) Protozoa (4) Algae

06. An example for the matter is,

(1) Sound (2) Light

(3) Air (4) Heat

07. The following characters can be observed of an animal which found form a field visit.

A - Body consists with segments.

B - Body is bilaterally symmetrical

C - Body possesses an external skeleton.

The invertebrate animal group that the above mentioned animal can be included is,

(1) Annelida (2) Mollusca

(3) Cnidaria (4) Arthropoda

08. A compound containing with sulphur is,

(1) Copper sulphate (2) Sodium Chloride

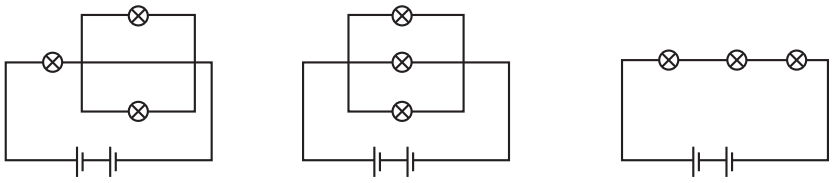
(3) Calcium Carbonate (4) Glucose

09. The compound that **cannot be** found in the urine of a healthy person is,

(1) Urea (2) Water

(3) Uric acid (4) Glucose

10. Here are three circuits built with identical electric cells and bulbs.

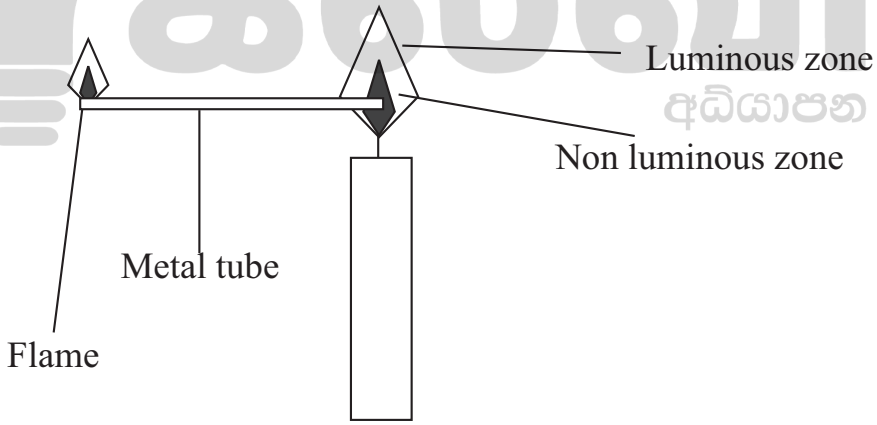


A **B** **C**

The answer which shows the ascending order of the brightness of bulbs is,

(1) A, B, C (2) C, B, A (3) B, A, C (4) C, A, B

11. An extra flame is created when a metal tube was inserted to the non-luminous zone of the candle flame. What is the substance of the candle flame which caused the above effect ?



(1) Oxygen gas (2) Wax vapour

(3) Liquidized wax (4) Incandescent carbon particles

12. A type of root origin from the stem of a plant that can be prevented from the overturning of the plant is,

(1) Prop roots (2) Stilt roots

(3) Respiratory roots (4) Tap root

13. Three statements about the masses of the same volume of water and salt solution are given below.

A - The mass of the salt is high.

B - The two masses are similar to each.

C - The mass of the water is low.

The correct statements are,

(1) A, B (2) B, C (3) A, C (4) A, B, C

14. A plant with reticulate venation is,

(1) Bamboo (2) "Kithul"

(3) Jack (4) Coconut

15. The physical character used of the oxygen when stored in a cylinder is,

(1) Lightness (2) Compression

(3) Low density (4) Expansivity

16. The correct order of the animals which containing a dry skin with scales and grandular skin without scales is,

(1) Tortoise, Frog (2) Toad, Salamander

(3) Frog, Tortoise (4) Toad, Cobra

17. The correct order of the symbols below,

(1) Resister, Capacitor, Bulb (2) Resister, Capacitor, Cell

(3) Capacitor, Resister, Bulb (4) Resister, Cell, Bulb

18. What is the correct answer which shows the factors that can be changed the resistance of a conductor ?

(1) Area of the conductor and temperature.

(2) The length of the conductor and the cross sectional area.

(3) Cross sectional area and temperature.

(4) Colour of the conductor and the density.

19. A - Earthworm B - Cockroach

C - Toad D - Leech

The answer which contains the **segmented worms** among the above organisms is,

(1) A, D (2) A, B (3) B, C (4) C, D

20. The correct statement about the combustion is,

(1) Combustion is a physical activity.

(2) No oxygen is needed for complete combustion.

(3) Oxygen is needed for combustion.

(4) There is only complete combustion happened in the candle flame.

21. An incident where the freezing is occurred,

(1) Liquidized wax ⟶ Evaporation

(2) Liquidized wax ⟶ Solidification

(3) Steam ⟶ Become in to water

(4) Solid Wax ⟶ Liquidation

22. The action which does not taken by the skin to keep the body temperature in constant is,

(1) Sweating when body temperature rise up

(2) The outermost cell layer of the epidermis prevents the removal of water.

(3) The hairs become erect on the skin.

(4) Receive the changes of the environment.

23. Following are some changes observed in the environment.

A - A knife blade submerged under soil is trapped with corrosion.

B - The volume of the mercury of a thermometer changed when measuring a temperature.

C - The copper wire get heated when the electricity flows through it.

The physical changes among the above are,

(1) B, C (2) A, C (3) A, B (4) A, B, C

24. An element with the property of brittleness is,

(1) Sulphur (2) Magnesium (3) Mercury (4) Lead

25. Some statements about water are given below.

A - Water is created by Hydrogen and Oxygen.

B - The boiling point of the distilled water is 100°C.

C - A change of state is happened at the boiling point with changing the temperature.

The correct statements are,

(1) A, B (2) B, C (3) A, C (4) A, B, C

- **Answer only five questions.**
- **12 marks for each questions.**

01. A An apparatus that is used to transform a piece of soft iron and a piece of steel into a magnet is given below. Tow pieces are similar in size.

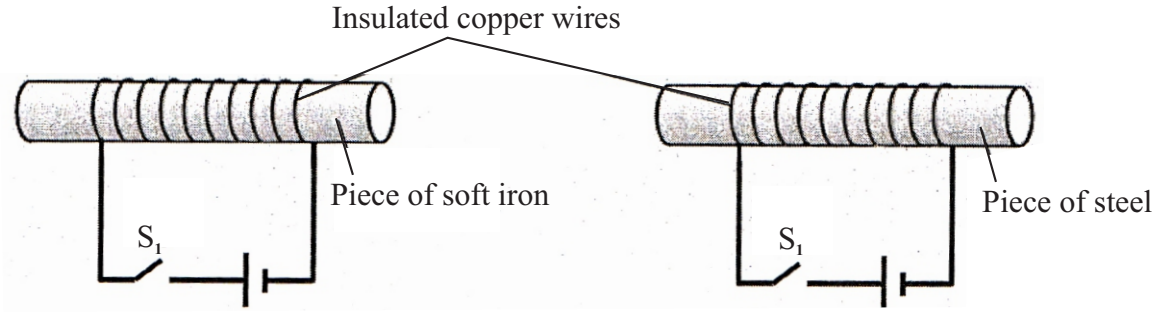


Figure A Figure B

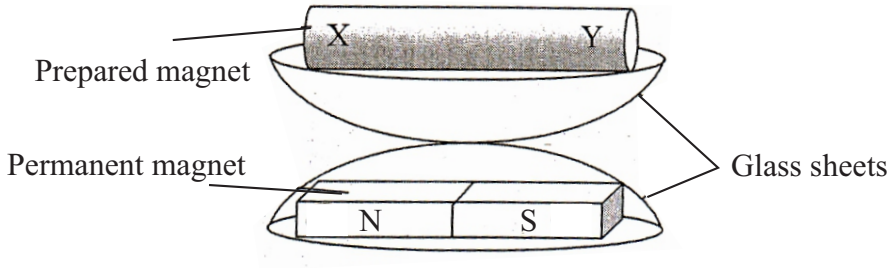
(i) Steps of the activities are shown in the table given below. Complete the table according to the observations by using the words "Attract" and "Do not attract." (3 m.)

Activity	Observations	
	Piece of soft iron	Piece of steel
1. Close to the pins when switch off the S_1		
2. Close to the pins when switch on the S_1		
3. Close to the pins when switch off the S_1		

(ii) According to the activity what is the most suitable material which can be used to make a permanent magnet ? (1 m.)

(iii) Write 2 methods that can be used to increase the power of the above permanent magnet. (2 m.)

B Following figure shows an activity which has done to identify the poles of the prepared magnet through the above activity.



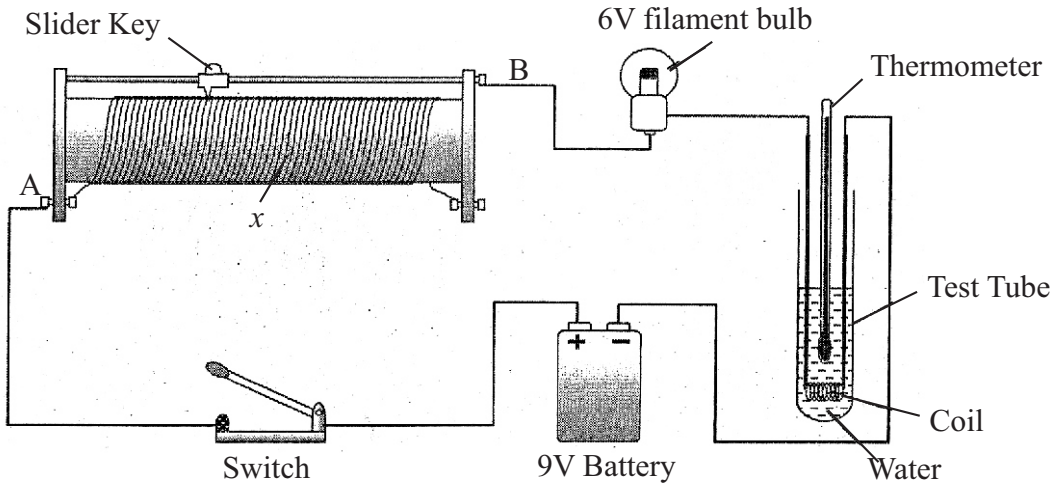
(i) The situation of the prepared magnet is shown by the figure. Name the poles X and Y according to the above observation. (2 m.)

(ii) Draw the magnetic field of the prepared magnet by using magnetic fields lines. (2 m.)

(iii) What is the device that can be used to identify the direction of the magnetic field ?(1 m.)

(iv) Write down an application of the electromagnets. (1 m.)

02. The following figure is shown an apparatus prepared to identify the effects of the electric current.



(i) Name the device "X". (1 m.)

(ii) Complete the following table by using the observations taken after few minutes when switch on the circuit. (4 m.)

Device	Observation	Effect of the electric current according to the observation
Bulb		
Thermometer		

(iii) Name a most suitable metal which can be used to prepare the coil. (1 m.)

(iv) Which direction should be the slider key moved in order to increase the brightness of the bulb ? (A to B or B to A) (1 m.)

(v) When used LED instead of the filament bulb it light up first. When move the slider key to the position A,

a) Mention the observation of LED. (1 m.)

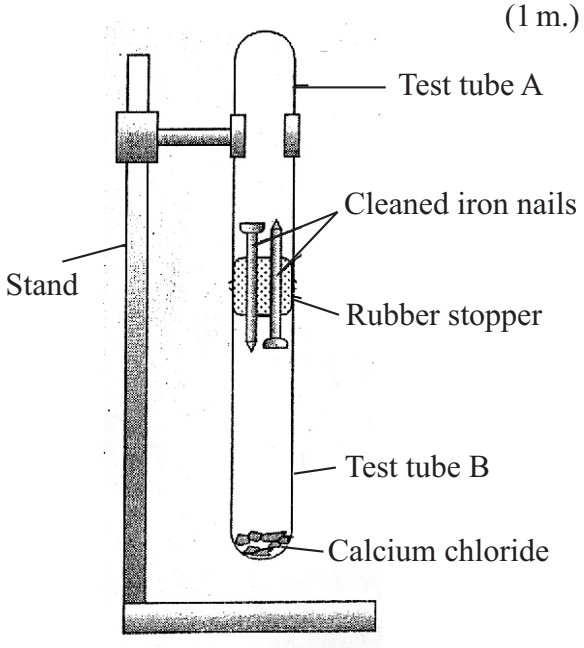
b) Write down the reason for it. (1 m.)

(vi) What is the device which can be used to measure the current flow through the circuit ? (1 m.)

(vii) Specify the method for connecting the above device to the circuit. (1 m.)

(viii) Draw the symbol of that device.(1 m.)

03. A The following figure shows a set up made for investigate one factor which is essential for rusting of iron.



(i) What kind of factor which caused the corrosion according to the above activity? (1 m.)

(ii) When keep the apparatus for few days,

a) What could be the observation in test tube "A"? (1 m.)

b) What is the reason for that ? (1 m.)

c) What could be the observation in test tube "B"? (1 m.)

d) What is the reason for that ? (1 m.)

(iii) What is the aim of cleaning of the iron nails before doing the experiment ? (2 m.)

(iv) Which factor is given equally to the nail parts of A and B test tubes among the factors which helps to the rusting of iron ? (1 m.)

(v) What is the action of calcium chloride ? (1 m.)

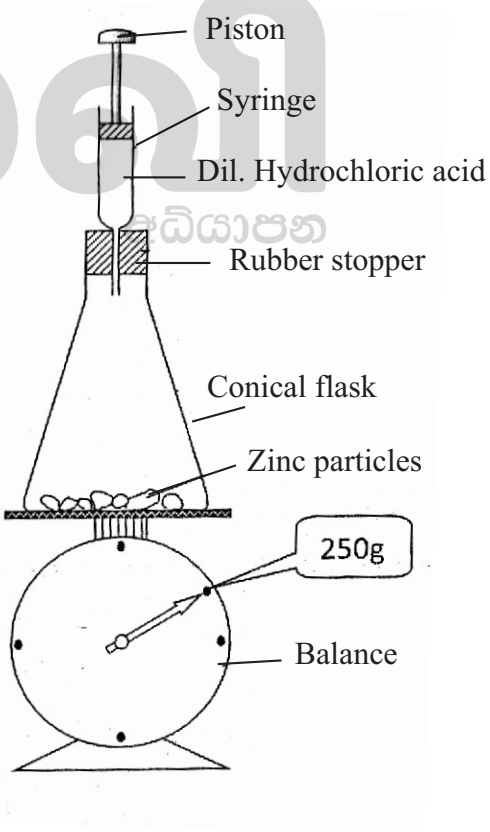
(vi) Write an other chemical which can be used instead of calcium chloride ? (1 m.)

B Zine metal is applied on objects made of iron in order to protect them from rusting.

(i) What is the name of that process ? (1 m.)

(ii) Write down an other method which can be used to prevent the rusting of iron. (1 m.)

04. A closed system created to do the reaction in between zinc and diluted hydrochloric acid is shown in the figure. The mass of the device is 250 g before starting the reaction.



(i) What is the action that should be taken to insert the acid into the conical flask ?(1 m.)

(ii) After inserting the acid into the flask,

a) Write an observation happening in the flask. (1 m.)

b) Write an observation of the syringe. (1 m.)

c) What observation can be used to detect that a chemical reacion has been taken place in the device among the above observations? (1 m.)

(iii) Write down two other observations that can be used to identify a chemical reaction in addition to the above observation.(2 m.)

(iv) What is meant by a close system ? (2 m.)

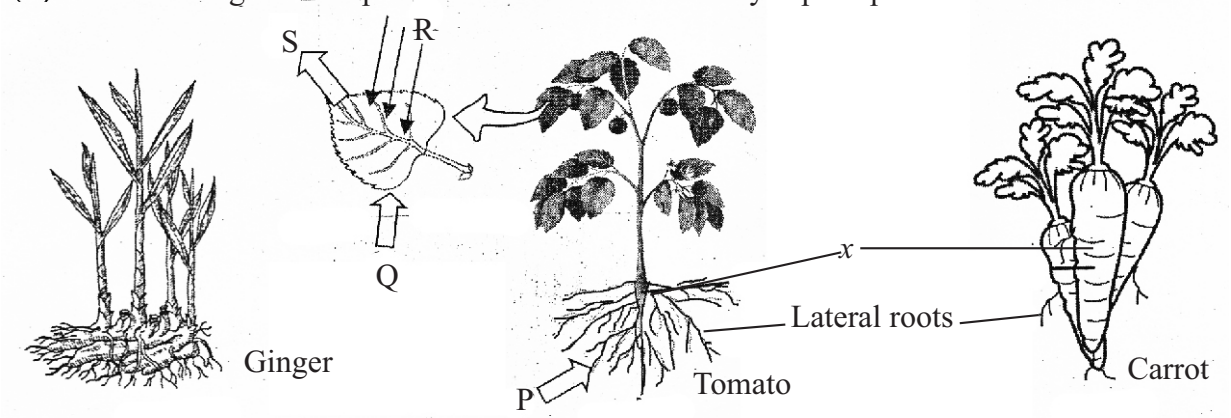
(v) Which **compound** is used for this chemical reaction ? (1 m.)

(vi) What is the mass of the system after the reaction ? (1 m.)

(vii) Write down the reason for the above one (vi) (1 m.)

(viii) What is the law which can be used to explain about chemical reactions through the above activity ? (1 m.)

05. A. The following are three plants used to show the diversity of plant parts and their functions.



(i) What is an under ground stem plant out of the above plants ? (1 m.)

(ii) Specify the importance of storing foods in an underground stem. (2 m.)

(iii) Consider the part "X" of the carrot and tomato plant.

a) Write the common name of it. (1 m.)

b) Write the main function of it. (1 m.)

(iv) According to the image, write an additional function done by the part "X" of the plant of carrot. (1 m.)

B The materials obtained and released by the leaves of chilli plant through a main biological process are shown by the letters of P, Q, R and S.

(i) Name that biological process. (1 m.)

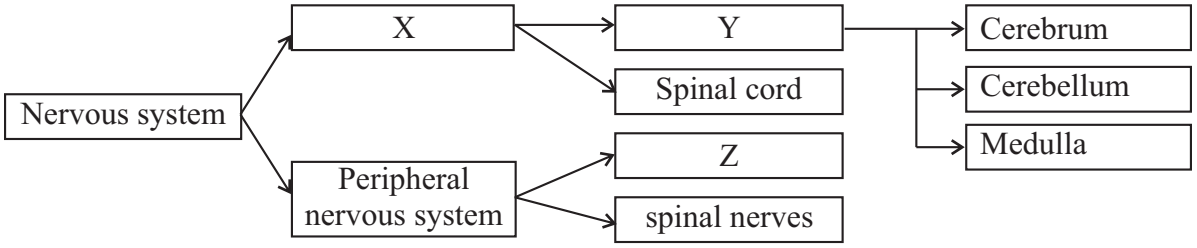
(ii) What are the materials represented by P and Q ? (2 m.)

(iii) R is the energy which used for the above mentioned process. Name the energy represented by "R". (1 m.)

(iv) Name the material represented by "S". (1 m.)

(v) What is the advantage for the above biological process through the leaf arrangement of the plants? (1 m.)

06. A Below is a brief note of the nervous system.



(i) Name X, Y and Z (3 m.)

(ii) Name a) one bony structure (1 m.)

b) One film structure (1 m.)

Which adapted to protect the spinal cord.

(iii) Write down an adaptation of X, shown to protect form the microbial infections. (2 m.)

(iv) Which part of "Y" belong to the following functions?

a) Identify a vehicle traveling on the road. (1 m.)

b) Threading a needle. (1 m.)

c) Respiratory discomfort occurs when hits to the back of the head. (1 m.)

(v) Write down two measures which can be taken to protect the nervous system. (2 m.)

Answer Sheet - Part I

01. (3) 02. (2) 03. (4) 04. (1) 05. (4) 06. (3) 07. (4) 08. (1) 09. (4) 10. (3)
11. (2) 12. (2) 13. (3) 14. (3) 15. (2) 16. (1) 17. (4) 18. (2) 19. (1) 20. (3)
21. (2) 22. (2) 23. (1) 24. (1) 25. (1)

Part II

01. A (i)

	Piece of soft iron	Piece of steel
1.	Do not attract	Do not attract
2.	Attract	Attract
3.	Do not attract	Attract

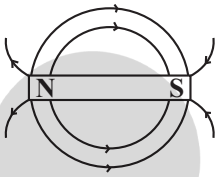
(1 m.) (1 m.) (1 m.)

(ii) piece of steel (1 m.)

(iii) Increase the current flow through the circuit.
Increase the number of turns of the coil.
Increase the number of cells. (2 m.)

B (i) X - South Y - North (2 m.)

(ii)



(2 m.)

(iii) Compass (1 m.)

(iv) Electric motor / speaker / or suitable answer. (1 m.)

02. (i) Rheostat (1 m.)

(ii)

Device	Observation	Effect of the electric current according to the observation
Bulb	Light up	Light effect (2 m.)
Thermometer	Increase the value of the reading	Heat effect (2 m.)

(iii) Nichrome (1 m..)

(iv) Form B to A (1 m.)

(v) a) Extinction or burring out (1 m.)
b) Increase the current flow through the LED (1 m.)

(vi) Ammeter (1 m.)

(vii) Serial to the circuit (1 m.)

(viii) —(A)— (1 m.)

03. A (i) Water (4 m.)

(ii) a) Part of the nails are rusting. (1 m.)
b) Got the all factors needed for rusting effect
Got the water (1 m.)
c) Part of the nails are not rusting. (1 m.)
d) Does not get the water as the factor caused the rusting effect. (1 m.)

(iii) Remove the rust or any paints. (4 m.)

(iv) Air / oxygen (1 m.)

	(v)	Absorb the moisture of the air in B. (If there is not B, do not give the marks)	(1 m.)
	(vi)	Silica Jell	(1 m.)
B	(i)	Galvanize	(1 m.)
	(ii)	Apply greece or paints / Dip in kerosine.	(1 m.)
04.	(i)	Push the piston into the syringe	(1 m.)
	(ii)	a) Remove the air bubbles / Destruction of the Zn plate.	(1 m.)
		b) Rise up the piston / Piston goes upwards	(1 m.)
		c) Removing the air bubbles.	(1 m.)
	(iii)	Precipitation / Change of the colour / Effervescence / etc...	(2 m.)
	(iv)	The systems in which the substances cannot exchange between the system and the environment.	(2 m.)
	(v)	Hydrochloric acid	(1 m.)
	(vi)	250 g	(1 m.)
	(vii)	Because of the mass of reactants and the mass of the products are equal to each.	(1 m.)
	(viii)	To the explanation of the Law of - conservation of mass.	(1 m.)
05. A	(i)	Ginger	(1 m.)
	(ii)	Perennation	(2 m.)
	(iii)	a) Tap root	(1 m.)
		b) Anchor the plant in the soil / Absorb water and minerals	(1 m.)
	(iv)	Storing foods	(1 m.)
B	(i)	Photosynthesis	(1 m.)
	(ii)	P = Water / Q = CO_2	(2 m.)
	(iii)	Light / Light energy (No marks to the solar energy)	(1 m.)
	(iv)	Oxygen	(1 m.)
	(v)	To get enough / more light to the leaves.	(1 m.)
06. A	(i)	X = Central nervous system Y = Brain Z = Cranial nerves	(3 m.)
	(ii)	a) Spinal column	(1 m.)
		b) Meninges	(1 m.)
	(iii)	Presence of cerebrospinal fluid	(2 m.)
	(iv)	a) Cerebrum	(1 m.)
		b) Cerebellum	(1 m.)
		c) Medulla	(1 m.)
	(v)	For suitable answer	(2 m.)