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වයඹ පළාත් අධ්‍යාපන දෙපාර්තමේන්තුව
Provincial Department of Education - NWP

තෙවන වාර පරීක්ෂණය - 2025
Third Term Test - 2025

Grade 9	Science	Time : 02 hours

Name / Index No.:

Part - I

Instructions :

- **Answer the first section on this paper itself. Each question carries two marks.**
- **The first question in the second section is compulsory and carries sixteen marks.**

01. A disease transmitted by the sand fly is,
(1) Cholera (2) Leishmaniasis (3) Malaria (4) Diarrhea

02. The group of micro-organisms used as bio-fertilizers is,
(1) Bacteria (2) Fungi (3) Viruses (4) Algae

03. The shrinking of mimosa leaves when touched is,
(1) A nyctinastic movement (2) A thigmonastic movement
(3) A positive chemotropic movement (4) A positive thigmotropic movement

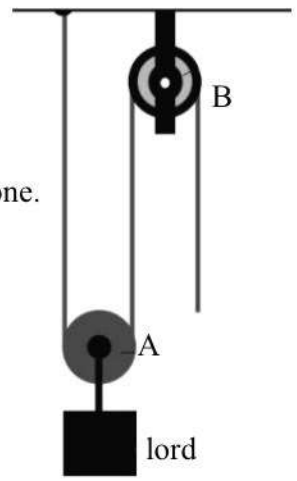
04. Select the answer that correctly shows the universal donor and the universal recipient respectively
(1) O and A (2) O and B (3) O and AB (4) AB and O

05. The following shows the behavior of a light ray incident on two optical devices X and Y. According to the behavior shown above,
(1) X is reflection, Y is reflection.
(2) X is refraction, Y is refraction
(3) X is reflection, Y refraction
(4) X is refraction, Y is reflection



06. The following are few statements about this pulley system,
a - A is the movable pulley while B is stationary pulley.
b - The mechanical advantage is two.
c - We get the mechanical advantage here from the movable pulley alone.
Select the correct answer,

	a	b	c
(1)	correct	correct	correct
(2)	correct	correct	incorrect
(3)	incorrect	incorrect	incorrect
(4)	incorrect	incorrect	correct



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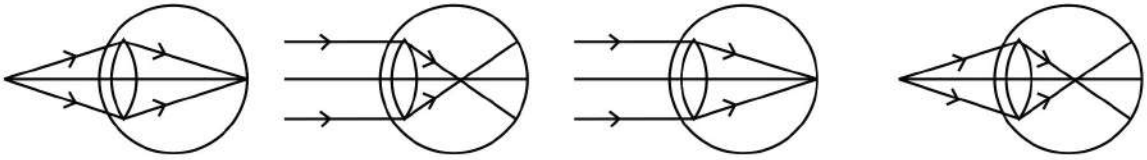
07. What is the standard unit of measuring density,

(1) kg (2) $N\ m^{-2}$ (3) $m\ s^{-1}$ (4) $kg\ m^{-3}$

08. The correct diagram of the condition of a patient with myopia (short sight)

(1) (2) (3) (4)



09. Consider the following statements,

(a) Oxygen gas was present in the primordial soup.

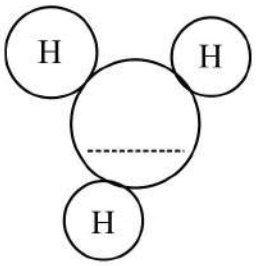
(b) The energy needed to create life in the primordial soup is provided by lightning.

(c) the first organism formed from primordial soup was a cnidarian.

Correct statement is,

(1) only a (2) only b (3) only c (4) a, b and c

10. Following is the structure of Ammonia molecule. The most suitable elemental symbol for the blank could be.



(1) C (2) O

(3) H (4) N

11. Atomic number means,

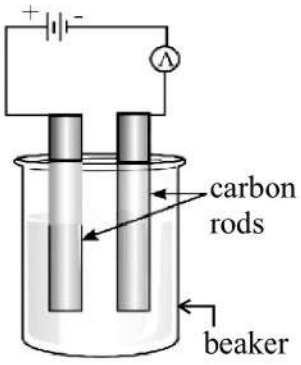
(1) The number of neutrons in the nucleus.

(2) The sum of the number of neutrons and protons.

(3) The number of protons in the nucleus.

(4) The sum of the number of protons and electrons.

12. In the above set up, which of the following liquid / solutions added to the beaker will the bulb light up?



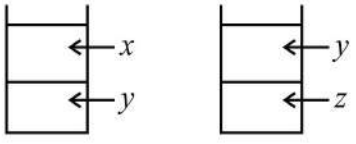
(1) salt solution

(2) distilled water

(3) coconut oil

(4) kerosene oil

13. *x*, *y* and *z* are three immiscible liquids, given below is the way it separated when mixed together and left undisturbed select the answer of these three liquids in accending order of their densities.



(1) *z*, *y*, *x* (2) *x*, *y*, *z* (3) *y*, *x*, *z* (4) *z*, *x*, *y*

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14. Which of the following is not an instance where a plane mirror is used?

(1) For beautyculture puroposes.

(2) Produce periscopes.

(3) for creating multiple images.

(4) for side mirrors of vehicles.

15. Following are a few statements about the sustainable use of natural resources,

(A) Sustainable use is the use of natural resources for present needs while ensuring that future generations can also use them.

(B) Wewa is a structure used by our ancestors for water conservation.

(C) The use of naturel resources is increased with the growth of population contributes for the development of a country.

Which of the above statements is true?

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

16. What measures can be taken to minimize the disruptive conditions caused by reverberation in auditoriums?

(1) reducing the use of curtains. (2) making the walls very smooth.

(3) using porous celling coverings. (4) making the ceiling coverings smooth.

17. What type of simple machine do wedges used for splitting fire wood belong to?

(1) inclined plane (2) lever (3) pulley (4) wheel and axel

18. The ability to see objects in the environment due to,

(1) regular reflection (2) diffuse reflection

(3) refraction of light (4) total internal reflection

19. Select the correct statement regarding natural disasters.

(1) Adopting to disasters is not an appropriate step to minimize damage.

(2) Natural disasters can be prevented.

(3) There is a tendency for natural disasters to decrease at present.

(4) Awareness about natural disasters can minimize them.

20. A cause for the occurence of tsunami is,

(1) Landslides occured on the ocean bed.

(2) Increase in atmospheric temperature.

(3) Using submarines for war activities.

(4) Non methodically construction near the costal areas

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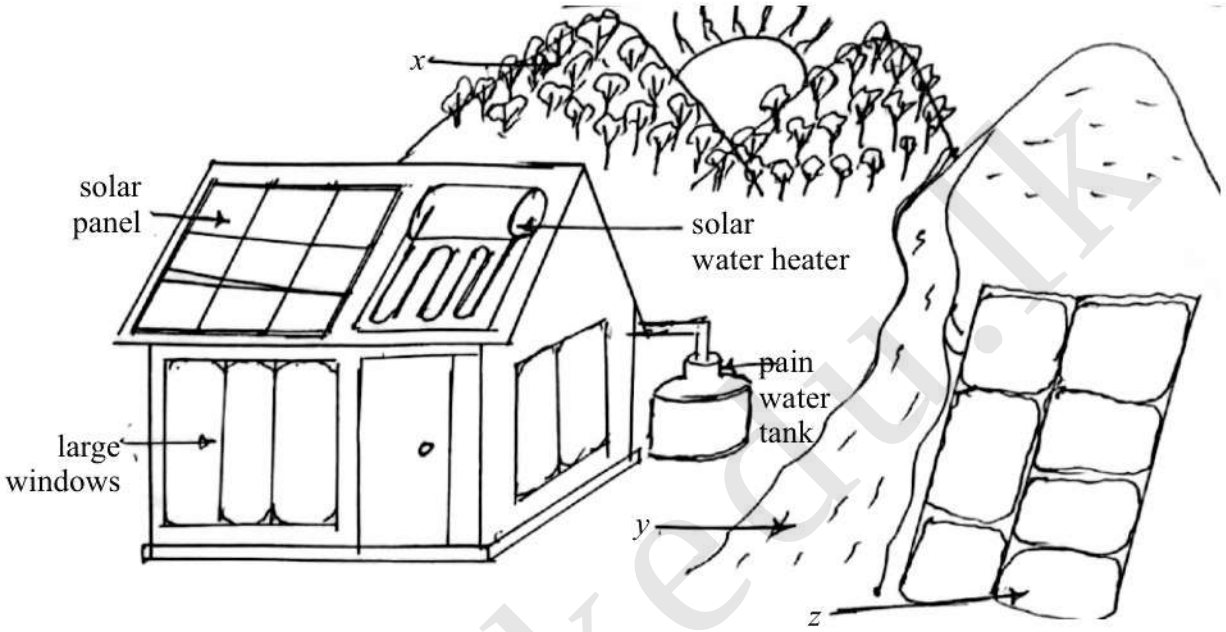
PART - II

- **Use a separate paper to answer the questions.**
- **First question is compulsory.**
- **Answer first question and 04 other selected questions**

01. (A) Below diagram shows the house which contructed due to green concept and its surrounging.



(i) Name an eco-system of ***x*** in the abve diagram. (01 marks)

(ii) Write a common feature of the trees shown in the above diagram. (01 marks)

(iii) Write an advantage can be obtained by eco system named as ***y***. (01 marks)

(iv) What is the artificial environment can be identified in above diagram. (01 marks)

(B) (i) Define what is green concept. (02 marks)

(ii) Write two strategies use in the house shown in the diagram related to the green concept. (02 marks)

(iii) Write two renewable energy sources used to generate energy in above diagram. (02 marks)

(iv) Write a suitable irrigation method to manage the rain water collected in the tank. (01 marks)

(C) The technology used to produce small scale goods are known as nano-technology.

(i) What is the nano scale can be used to produce most efficent nano products. (01 marks)

(ii) Name a natural nano product. (01 marks)

(iii) Sri Lanka is a country which famous for Jem industry, state and important property of Jems. (01 marks)

(iv) Write a problem can be arised related to Jem industry. (01 marks)

(v) The type of timber called 'lunumedella' is used to construct ceiling of houses. Write a property of it used for the process. (01 marks)

(Total Marks 16)

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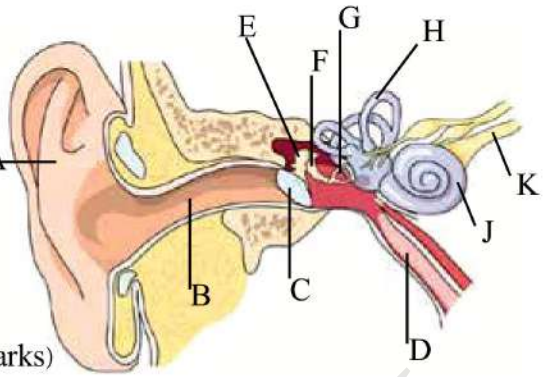
02. (A) The diagram given below is a human ear. Answer the questions related to the diagram.



(i) Name H of the diagram. (01 marks)

(ii) Write an English letters of the diagram related to the functions given below.

(a) Maintain the constant pressure on either sides of the tympanic membrane. (01 marks)

(b) Auditory sences are starts from. (01 marks)

(iii) Write a precaution should be taken to protect the ear. (01 marks)

(B) The movement is a feature of living organisms the animals and plants also do movements.

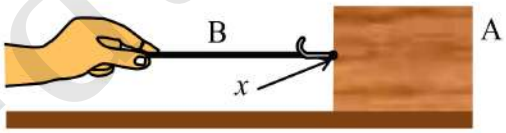
(i) State a plant movement occured in the environment. (01 marks)

(ii) Name the bone of upper part of the human hand. (01 marks)

(iii) Name a muscle which supply energy to bend the arm. (01 marks)

(iv) What is the name given for the type of conservation of organisms in its own living environment. (01 marks)

(C) Given below is a diagram of pulling a wooden block on the surface of a table.



(i) Name an instrument can be used to measure the force of pulling the block. (01 marks)

(ii) State the direction of the force acting on the block using letters A and B. (01 marks)

(iii) What is the name given for the point ***x*** on the wooden block. (01 marks)

(Total Marks 11)

03. (A) Given below are few substances stored in labeled containers for laboratory activity.

Sulphur	Salt solution	lime stone powder + Iron powder	Distilled water	Glucose solution

(i) Name a pure substance. (01 marks)

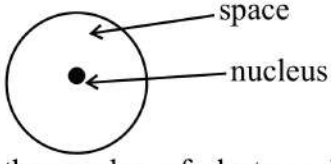
(ii) State a heterogeneous mixture. (01 marks)

(iii) Write an example for an element. (01 marks)

(iv) Suggest a method to separate salt from salt solution. (01 marks)

(v) What is the reason to glucose is known as a hetro atomic molecule. (01 marks)

(B) Below diagrem shows a model of an atom.



(i) State the locations of following sub atomic particles of above atom.

(a) Neutron (b) Electron (02 marks)

(ii) The number of protons of neutral atom is 10. What is the number of electrons in it. (01 marks)

(C) The density is used to determine the quality of various liquids and solutions.

(i) Name an equipment used to measure density. (01 marks)

(ii) Build up the expression to Calculate the density related with volume and the mass of a substance. (02 marks)

(Total Marks 11)

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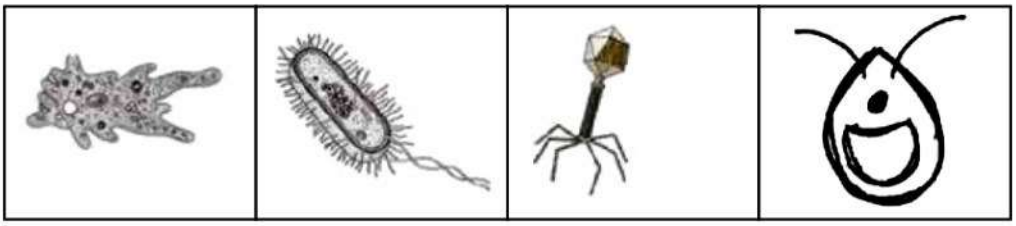
04. (A) Followings are same illustrations of micro organisms.



P Q R S

(i) Select the related letter of the micro organism for following characteristics.

(a) Display both living and non living characteristics. (01 marks)

(b) Use psudopodia for locomotion. (01 marks)

(c) Possess chlorophyll and have the ability of photosynthesis. (01 marks)

(ii) What is the group of microorganism shown by the letter Q. (01 marks)

(iii) Define what is known as bio leaching. (02 marks)

(iv) Given below are some steps followed during the production of yoghurt. Write the requirement of below steps.

(a) Milk heated in a temperature between 88 ^{0}C - 95 ^{0}C. (01 marks)

(b) Add culture Yoghurt sample to the milk. (01 marks)

(B) The apex grow up ward and roots grow downwards in a potted plant.



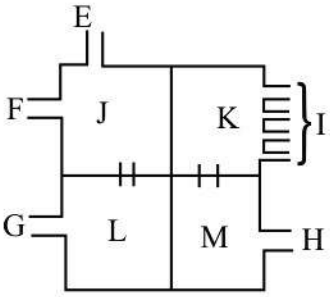
(i) Which part of the plant shows negative geotropism. (01 marks)

(ii) When cut the apex increase the grown of lateral buds. What is the plant growth substance which contributes for the above process. (01 marks)

(iii) Name an artificial plant growth substance use to induce root formation of stem cuttings. (01 marks)

(Total Marks 11)

05. (A) Following is a rough sketch of a human heart.



(i) Select the suitable letter for the given spaces.

(a) ..... is a right atrium. (01 marks)

(b) Transport blood from heart to lungs by ..... (01 marks)

(ii) Name values located in following places.

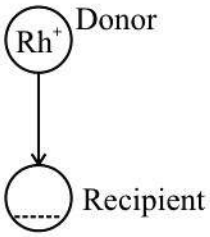
(a) Between K and M. (01 marks)

(b) Starting point at the G. (01 marks)

(iii) Write a structural difference between G and H blood vessels. (02 marks)

(iv) What is the component of blood which contribute to transport glucose to te body cells. (01 marks)

(v) Given diagram shows a compatibility of Rhesus factor during the transfusion of blood. Draw the diagram on your answer sheet and complete the spaces. (01 marks)



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(B) If is belived that about 4.5 billions years ago life originated on the earth.

(i) Name a modern theory about origin of the earth. (01 marks)

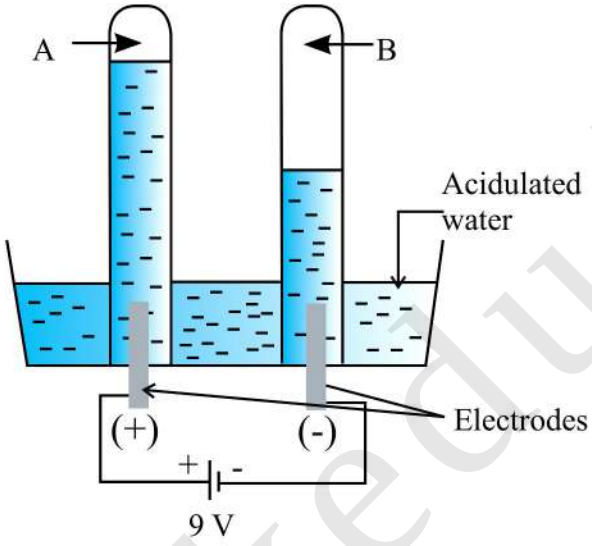
(ii) Name a galaxy which our solar system belongs (01 marks)

(iii) Write the order of following organisms originated on the earth.

(Amphibians, Pisces, Reptilia) (01 marks)

(Total Marks 11)

06. (A) Given below is a set-up can be used to electrolysis of acidulated water.



(i) Define what is known as electrolysis. (02 marks)

(ii) Name a suitable substance for electrodes can be used in above setup. (01 marks)

(iii) Fill the blanks in the table related to the gases evoled at A and B and methods of identifying it.

Test tube	Gas evolved	Identifying test
A	Oxygen	P - .....
B	Q -	When insert glowing splinter it burns with pop sound.

(02 marks)

(B) Globel warming is increases in near future.

(i) Write the main reason to increase the global warming. (01 marks)

(ii) What is the effect of increasing globel warming for the other natural disasters. (01 marks)

(iii) What is the mechanism that distributes the solar energy recived by the regions closer to the equator. (01 marks)

(iv) Today it is increase the loss of lives and property due to lightning.

(a) What is the type of lightening seriously affected the person. (01 marks)

(b) What is the reason to make thunder during the lightning. (01 marks)

(c) Write a prevention method of lightning accidents. (01 marks)

(Total Marks 11)

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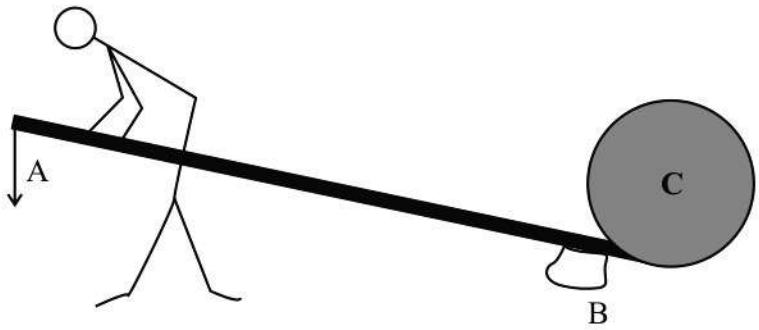
07. (A) The diagram shows the strategy can be used to lift a large rock.



(i) What is the type of simple machine that above device belongs. (01 marks)

(ii) State the letters which denote fulcrum and load of the above device.

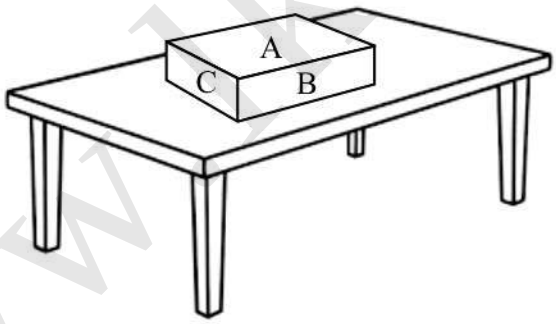
(a) Fulcrum - .....

(b) Load - ..... (02 marks)

(iii) The weight of the rock is 500 N and 250 N of force is applying to raised it up. Find the mechanical advantage of the machine. (02 marks)

(iv) Write another type of simple machine and example for it instead of above machine. (02 marks)

(B) Finger shows the wooden block with 10 N of weight placed on the table.



(i) Calculate the pressure exerted on the table if the surface area of the block is $0.2\ m^2$.

(2 marks)

(ii) What is the change of pressure can be seen when the surface C of the wooden block place to contact with the table. (01 marks)

(iii) What is the reason for above answer. (01 marks)

(Total Marks 11)

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Part - I

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

(20 x2 =40 marks)

PART - II

01. (A) (i) Montane forests (01m.)
(ii) trees are stunted, with twisted stems, has small leaves (01m.)
(iii) relavent answer (01m.)
(iv) paddy field (01m.)

(B) (i) Following guidelines and policies essential for maintaining goods and services in the natural environment on Earth is minimally harmed or not harmed. (02m.)
(ii) Large windows, doors, solar panels, solar water heaters, rain water tanks (02m.)
(iii) Sun, flowing water (02m.)
(iv) Drip irrigation (01m.)

(C) (i) 1nm - 100nm (01m.)
(ii) cell and lotus leaf (01m.)
(iii) Hardness, resistance to be without, colour, high refractive index (01m.)
(iv) relevant answer (01m.)
(v) light in weight (01m.)

02. (A) (i) H - semi circuler tubes(01m.)
(ii) (a) D (01m.) (b) J (01m.)
(iii) Avoid inserting foreign objects into the ear (01m.)

(B) (i) relevant answers (01m.)
(ii) Humerus (01m.)
(iii) Biceps muscle (01m.)
(iv) in - situ conservation (01m.)

(C) (i) Newton balance (01m.)
(ii) to B (01m.)
(iii) the point of application of force (01m.)

03. (A) (i) Sulphure / distilled water (01m.)
(ii) limestone powder / iron powder (01m.)
(iii) Sulphur (01m.)
(iv) water vaporised when heating (01m.)
(v) elements consists with atoms (01m.)

(B) (i) (a) nucleus (b) space (02m.)
(ii) 10 (01m.)

(C) (i) Hydrometer (01m.)
(ii) density = mass / volume (02m.)

04. (A) (i) (a) R (01m.) (b) P (01m.) (c) S (01m.)
(ii) Bacteria (01m.)
(iii) Metal extraction from low grade ores. (02m.)
(iv) (a) destroy micro - organisms (01m.)
(b) to add micro - organisms / bacterial which caused for coagulation of mark. (01m.)

(B) (i) Shoot apex (01m.)
(ii) Oxine (01m.)
(iii) IAA / IBA (01m.)

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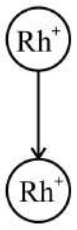
05. (A) (i) (a) J (01m.)
(b) G (01m.)
(ii) (a) Biraspid value (01m.)
(b) Semi lunar value (01m.)
(iii) relevant answer (02m.)
(iv) Blood plasma (01m.)
(v) 

(01m.)

(B) (i) Big band theory (01m.)
(ii) milky way (01m.)
(iii) Fish , Amphibians, Reptiles (01m.)

06. (A) (i) A chemical compound is conuerted into more simpler components with the help to electric current (02m.)
(ii) C and pt (Carbon & platinum) (01m.)
(iii) P - insert a glowing splint and reignite brightly Q - hydrogen (02m.)

(B) (i) releasing green house gases into atmosphere (01m.)
(ii) increase natural disasters (01m.)
(iii) Cyclones (01m.)
(iv) (a) direct strikes (01m.)
(b) air expands instantaneously due to high temperature (01m.)
(c) Suitable answer (01m.)

07. (A) (i) lever (01m.)
(ii) (a) fulcrum B (b) load C (02m.)
(iii) mechanical advantage $= \frac{\text{Load}}{\text{Effort}}$ (1 mark equation / substitution) (02m.)

$= \frac{500}{250}$

$= 2$

(iv) Suitable answer (02m.)

(B) (i) Pressure $= \frac{\text{Fores}}{\text{Area}}$ (1 mark equation / substitution) (02m.)

$= \frac{10}{0.2}$

$= 50\ \text{Pa}$

(ii) Increase pressure (01m.)
(iii) reduce surface area (01m.)

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