

De Mazenod College-Kandana

Science

First Term Evaluation- 2025

Grade 9

Part I



Time 2 hours

9.05.2025

➤ Answer all questions.

➤ Select the most suitable answer.

1. Not an unicellular micro-organism given below is,
 1. Amoeba
 2. Spirogyra
 3. Paramecium
 4. Euglena
2. A category of micro-organism which multiplies only inside the living cells,
 1. Chlamydomonas
 2. Virus
 3. Bacteria
 4. Paramecium
3. A micro-organism which is used to produce dairy products,
 1. Vibrio cholera
 2. Saccharomyces
 3. Lactobacillus bulgaricus
 4. Acetobacter Aceti
4. Not a characteristic of a virus,
 1. Display both living and non-living characteristics
 2. No cellular organization
 3. Electron microscopic
 4. Respiration occurs
5. The technology used to remove environmental pollutants using micro-organisms is,
 1. Bio remediation
 2. Bio conservation
 3. Bio leaching
 4. Bio degradation
6. A plant which is commonly affected by the disease late blight,
 1. Grapes
 2. Potato
 3. Tomato
 4. Bitter guard
7. Controls the amount of light entering the eye is,
 1. Pupil
 2. Iris
 3. Ciliary muscle
 4. Lens
8. To get a clear image without changing the image distance is,
 1. The curvature of the eye lens should be reduced for a distant object
 2. The curvature of the eye lens should be increased for a distant object
 3. The curvature of the eye lens should be reduced for close objects
 4. None of above

9. The part where does the light sensitive cells of the retina present.

1. Blind spot
2. Yellow spot
3. Pupil
4. Aqueous humour

10. When a cataract occurs,

1. Reduce the transparency of the eye
2. Denaturing of proteins in the eye lens
3. The eye lens turns into milky colour
4. All above

11. The organ in the ear that maintain the balance of body is,

1. Cochlea
2. Ossicles
3. Semi-circular canals
4. External auditory canal

12. The three ossicles in order are,

- i. incus, stapes, malleus
- ii. malleus, stapes, incus
- iii. stapes, malleus, incus
- iv. malleus, incus, stapes

13. Electron is a subatomic particle. It is,

1. Negatively (-) charged
2. Zero
3. Positively (+) charged
4. Neutral

14. A physical method of separating various fuels from crude oil is,

1. evaporation
2. fractional distillation
3. steam distillation
4. filtration

15. Consider the statements given below, about a force. Because of a force applied on an object.

- A. Object at rest can be moved.
- B. Object in motion can be stopped.
- C. The speed of an object can be changed.

What are true from the statements above?

1. Only A
2. Only A and B
3. A, B, C all are true
4. A, B, C all are wrong

16. The following molecule formed by the combination of Hydrogen and chlorine is,

1. homo-atomic
2. homo atomic and hetero-atomic
3. hetero-atomic
4. cannot state



17. Elements present in glucose are,

1. C, H, S
2. O, H, S
3. C, O, S
4. C, H, O

(b) Name two reasons for the defects of vision.

(1 mark)

ii. A person can observe far objects clearly but unable to observe close objects.

(a) Name the defect of vision mentioned above.

(1 mark)

(b) Briefly explain that defect with a suitable ray diagram.

(2 marks)

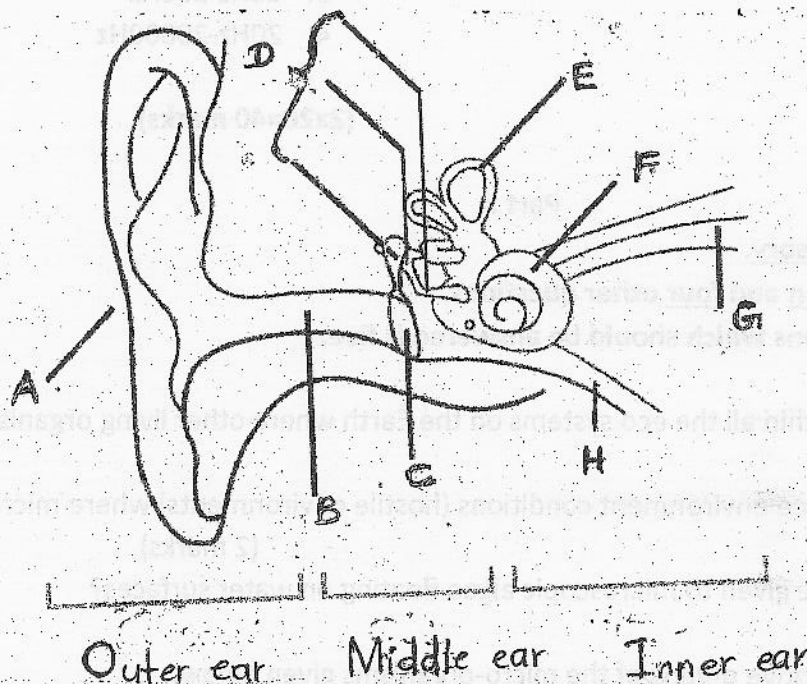
(c) Draw a ray diagram to show the image formed after correcting that defect.

(2 marks)

(Total 11 marks)

03.

i. A figure of audio sensory organ of a human is given below. Name all the parts from A to H.



(4 marks)

ii. Mention the functions of the parts given below.

(a) B-.....

(b) C-.....

(c) E-.....

(d) G-.....

(2 marks)

iii. How do sounds in the external environment transmit to the brain? Explain briefly.

(2 marks)

iv. Name three necessary precautions that should be taken to protect the ear.

(3 marks)

(Total 11 marks)

04. Matter is made up of particles. Those particles are unable to observe in our naked eye.

(i) Separate the molecules given below as homo atomic and hetero-atomic molecules.

(O_2 / CO_2 / N_2 / HCl / Cl_2 / CH_4 / H_2 / H_2O)



18. Force is considered as a vector quantity, because it has,

1. Only a direction
2. A direction and a magnitude
3. Only a magnitude
4. Not a direction or a magnitude

19. The symbols of Chlorine, Calcium and Copper are respectively,

- | | |
|---------------|---------------|
| 1. Ca, Cl, Cu | 3. Cl, Cu, Ca |
| 2. Cl, Ca, Cu | 4. Cu, Cl, Ca |

20. The range of audibility of the human ear is,

- | | |
|------------------|-----------------|
| 1. 200Hz-20000Hz | 3. 20Hz-200Hz |
| 2. 2Hz-20Hz | 4. 20Hz-20000Hz |

(2x20=40 marks)

Part II

- First question is compulsory.
- Answer the first question and four other questions.
- Total number of questions which should be answered is five.

01. Micro-organisms live within all the eco systems on the Earth where other living organisms survive.

- i. Name two extreme environment conditions (hostile environments) where micro-organisms can live (2 marks)
- ii. What is the name given to microscopic algae floating on water surfaces? (1 mark)
- iii. Name the locomotive organs of the micro-organisms given below. (2 marks)
 - (a) Amoeba
 - (b) Euglena
- iv. Name the followings based on dengue. (3 marks)
 - (a) Pathogen
 - (b) Vector
 - (c) Host
- v. What do you mean by antibiotics? (1 mark)
- vi. Give two examples for antibiotics. (2 marks)
- vii. Name two raw materials that can be used to produce biogas. (2 marks)
- viii. Micro-organisms are used in economically as well as in day-to-day activities. Mention three reasons to use micro-organisms for various purposes. (3 marks)

(Total 16 marks)

02. The eye is the optical sensory organ in our body.

- i. Mention the functions of following parts of an eye.

a. Choroid	b. Lens	c. Iris	d. Ciliary Muscles
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(4 marks)
- (a) Name two defects of vision. (1 mark)

Homo-atomic molecules	Hetero-atomic molecules

(4 marks)

(ii) Write the chemical symbols of the elements given below.

(a) Magnesium

(c) Argon

(b) Sodium

(d) Neon

(2 marks)

iii. Name the elements present in the compounds give below separately.

a) CaCO_3

(b) CuSO_4

(c) CuSO_4

(d) $\text{C}_6\text{H}_{12}\text{O}_6$

(2 marks)

(iii) Draw the figures given below to show the formation of molecules using their atoms.

(a) CO_2

(b) H_2O

(c) HCl

05. Match each statement in column A with the answer in column B and write the correct letter in the bracket given below.

A		B
i. Formed by the combination of two or more elements	()	a) mixtures
ii. Stated with the atom cannot be divided further	()	b) steam distillation
iii. Can separate by physical methods	()	c) ear lobe
iv. Separating cinnamon oil from cinnamon leaves	()	d) muddy water
v. Separating various fuels from crude oil	()	e) Ernest Rutherford
vi. Directs sound waves towards the external auditory canal	()	f) Convex lens
vii. Separating sugar from sugar cane syrup	()	g) Fractional distillation
viii. Heterogeneous mixture	()	h) Compound
ix. Use to correct the long sight	()	i) Crystallization
x. Stated that there is a nucleus at the centre of the atom	()	j) Point of application
xi. The point of an object, on which the force is exerted.	()	k) John Dalton

(Total 11 marks)

06. Force is a pull or a push.

- i. Mention four changes of an object that can occur by applying a force. (4 marks)
- ii. Why is force considered as a vector quantity? (2 marks)
- iii. What is the standard unit of measuring force? Name its symbol. (2 marks)
- iv. What is the equipment that can be used to measure the magnitude of a force? (1 mark)
- v. A force of 2N acting on the wooden block to the direction east. Show the graphical representation of the above force on a wooden block. (1cm=1N) (2 marks)

(Total 11 marks)

07.

- i. What is an element? (1 mark)
- ii. Mention the difference between an element and a compound. (1 mark)

iii. $^{40}_{20}\text{Ca}$

Consider the above element which is written in standard method. Mention its,

- (a) Number of protons
- (b) Number of electrons
- (c) Number of neutrons

(3 marks)

iv. Complete the table. (a to f)

Element	p	e	n	Atomic number	Mass number
C	(a)	6	6	6	12
N	7	(b)	(c)	7	14
O	8	(d)	8	8	(e)
Mg	12	12	(f)	12	24

(6 marks)

(Total 11 marks)

