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Sri Sumangala College - Panadura

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1st Term Test - March 2020

ශ්‍රේණිය } 09
Grade }

විෂයය } **Science**
Subject }

පත්‍රය } **I,II**
Paper }

කාලය } 2 hours
Time }

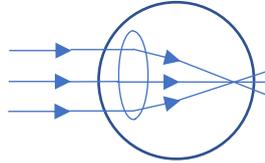
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Part I

1. What is the microbe type used in production of vinegar?
 - I. Bacteria
 - II. Virus
 - III. Algae
 - IV. Protozoa
2. What is NOT a characteristic of the organism responsible for Covid 19 infection that is spreading fast throughout the world.
 - I. No cell organization
 - II. Showing biological activities like respiration and growth.
 - III. Multiplication only in living cells
 - IV. Being electron microscopic
3. What is the bacteria that independently live in soil and engage in nitrogen fixation
 - I. Rhizobium
 - II. Lactobacillus
 - III. Acetobacter
 - IV. Azotobacter
4. What is the list comprising only of heavy metals
 - I. Magnesium, Sulphur, Mercury
 - II. Sodium, Calcium, Chromium
 - III. Chromium, Lead, Mercury
 - IV. Beryllium, Zinc, Potassium
5. Disease caused by food and water,
 - I. Leishmania
 - II. Malaria
 - III. Dengue
 - IV. Amoebiasis
6. The technology used to purify the environment using microbes is called
 - I. Biological control
 - II. Bio degradation
 - III. Bio remediation
 - IV. Bio leaching

7. The area in which photo sensitive cells are not located in retina is
- I. Fovea
 - II. Pupil
 - III. Blind spot
 - IV. Cornea
8. The figure describes how the image is centred in a person with an eye defect. What is the remedy for the defect?



- I. Wearing spectacles with convex meniscus
 - II. Wearing spectacles with concave meniscus
 - III. Wearing spectacles with bi concave lenses
 - IV. Wearing spectacles with bi concave lenses
9. What is the audible range to which the human ear is sensitive?
- I. 200Hz – 2000Hz
 - II. 2000Hz – 20000Hz
 - III. 2Hz – 2000Hz
 - IV. 20Hz – 20000Hz
10. What structure in the human ear contributes to maintaining balance of the body?
- I. Cochlea
 - II. Auditory canal
 - III. Ossicles
 - IV. Semi-circular canals
11. The group of micro organisms used to process antibiotics are
- I. Fungi and Bacteria
 - II. Bacteria and Virus
 - III. Virus and Fungi
 - IV. Protozoa and Algae
12. What are the sub atomic particles within the nucleus of an atom?
- I. Only electrons
 - II. Only protons
 - III. Only neutrons and electrons
 - IV. Only protons and neutrons
13. An adequate force is required to move an object. The point to which the force is applied is called
- I. Centre of gravity
 - II. Point of application of force
 - III. Reluctant of force
 - IV. Direction of force
14. What is the pressure exerted on the surface of 3m^2 when a 600N force is applied on it ?
- I. 150Nm^{-2}
 - II. 100Nm^{-2}
 - III. 200Nm^{-2}
 - IV. 1800Nm^{-2}

15. What contributes to balance the pressure on either side of the tympanic membrane?

- I. Auditory nerve
- II. Cochlea
- III. Ossicles
- IV. Eustachian tube

16. What is the number of Protons, Neutrons and electrons respectively in a $^{35}_{17}\text{Cl}$ atom?

- I. 17,18,18
- II. 17, 18, 17
- III. 17, 17, 18
- IV. 17, 17, 17

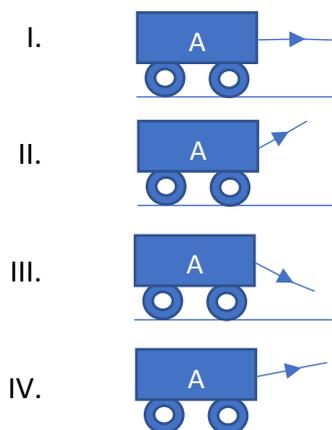
17. What process below could be an example of crystallization?

- I. Processing of sugar from sugarcane
- II. Extracting fuel from crude oil
- III. Extracting minerals from mineral sand
- IV. Removing sand from rice

18. A characteristic of Vector quantity is,

- I. With a specific direction
- II. With a magnitude and without direction
- III. With a specific direction and magnitude
- IV. With specific direction, with a magnitude.

19. A is a loaded cart. If an equal force is applied, which of the following will move easily?



20. An instance where is the pressure its increased ,

- I. Having more wheels of a heavy vehicle
- II. Sharpening of a knife
- III. Having wider tires of a heavy vehicle
- IV. Placing a wooden board to cross an area with mud

(Marks: 2 x 20)

Grade 9 - Science
Part II

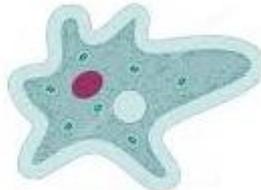
- Answer all questions

1. (A) There are occasions where microbes are beneficial for humans. There are many occasions where microbes cause destruction for humans.

I. What are the microbes below?



A



B

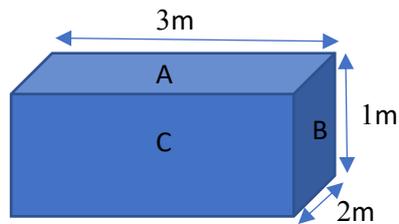


C

(03 Marks)

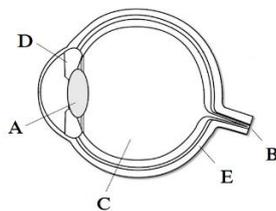
- II. Microbes exist in extreme environments in which other organisms cannot survive. Name two such extreme environments. (01 Marks)
- III. What is the microbe that causes bread mold (01 Marks)
- IV. Name two plant products that use microbes. (01 Marks)
- V. Name two features of viruses. (01 Marks)
- VI. Under what microbial group is diatoms categorised? (01 Marks)
- VII. What are antibiotics? (01 Marks)
- VIII. Name an antibiotic used to destroy fungi. (01 Marks)
2. Answer the questions based on learnings on elements and compounds
- I. What are compounds? (0.5 Marks)
- II. What is the difference between elements and compounds? (0.5 Marks)
- III. Classify the following pure substances along elements and compounds
Sulphur iron Oxygen Potassium permanganate
Lead Magnesium Chloride
Sodium Chloride Iodine (04 Marks)
- IV. Provide examples for a homogeneous mixture and a heterogeneous mixture used at home. (01 Marks)
- V. Name the elements in the following compounds
- Glucose
 - Carbon dioxide
 - Water
 - Benzene
 - Ethanol (05 Marks)

3. (A) A rough diagram of a cuboid shaped object with a mass of 6000N is given below.



- I. Calculate the pressure acting on surface when the cuboid is kept for as to contact with surface A. (03 Marks)
- II. Which contact surface creates the maximum pressure on the ground? (03 Marks)
- III. What are the factors affecting on pressure? (02 Marks)
- IV. Write two instances each used to increase and decrease pressure. (04 Marks)

4. (A) The figure below is of a human eye



- I. Name A, B, C, D and E of the figure? (2.5 Marks)
- II. What are the light sensitive cells in the retina? (0.5 Marks)
- III. What is the function of “B”)? (1 Marks)
- IV. Draw the ray diagrams indicating how the images are formed in human eye ? (2 Marks)

(B) Ear is the sensory organ that is responsible for hearing.

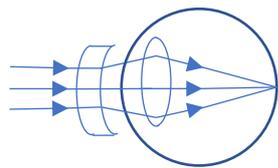
- I. Explain briefly how the ear contribute in hearing. (2 Marks)
- II. What are the three ossicles situated in the middle ear? (1 Marks)
- III. Write two common auditory defects. (2 Marks)

5. (A) Read the following statements and mark correct (✓) or incorrect (x)

- I. The point of exerting a force to move an object is called the operational line ()
- II. Elements and compounds are pure substances ()
- III. Semi circular canals are required to balance the pressure on either side of the tympanic membrane ()
- IV. The reduction in transparency of the lens of the eye is called cataract ()
- V. Formation of white or ash coloured powder on leaves, trunk, flowers and fruits is a feature of blight ()
- VI. Foods with protein are subjected to putrefaction ()
- VII. Distillation is the process used to extract cinnamon oil from cinnamon leaves ()
- VIII. Sea water is a heterogeneous mixture ()
- IX. The microbe called algae has the ability to photosynthesize ()
- X. Metal extraction from Ore using microbes is called bio remediation ()

(Marks: 1 x 11)

(B)The figure below explains a solution to rectify an eye defect.



- XI. What has been the solution? (1 Marks)
- XII. What has been the eye defect? (1 Marks)
- XIII. What could be the reason for the defect? (1 Marks)
- XIV. What is the eye defect overcome by using a convex meniscus? (1 Marks)
- XV. What is three-dimensional vision? (1 Marks)