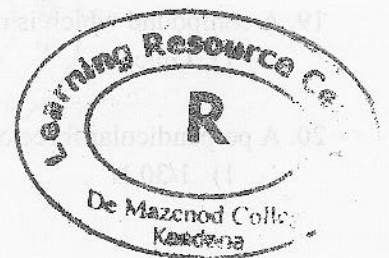


Part - I

2024-06-

- Answer all the questions
- Under line the most suitable answer.

1. SI units of force is,
1) m 2) Nm 3) N 4) Kg
2. Symbols of elements of sodium and Potassium are respectively,
1) So and P 2) K and So 3) K and Na 4) Na and K
3. Light enters to the eye,
1) Through blind spot 3) through iris
2) Through pupil 4) through retina
4. The technology used to remove environmental pollutants using microorganisms is known as,
1) Bio-remediation 3) Nitrogen fixation
2) Bioleaching 4) industrial microbiology
5. Helps to change the curvature of the lens, when necessary is,
1) Optic muscle 2) Iris 3) Ciliary muscles 4) forvea.
6. Which part of the ear helps to maintain the balance of the body?
1) Cochlea 2) Semicircular canals 3) Ossicles 4) auditory nerve
7. A disease caused by protozoa is,
1) Pityriasis 2) tuberculosis 3) leishmaniasis 4) dengue
8. Correct statement regarding the convex lense is,
1) Focal length decreases when increasing the curvature
2) Focal length increases when increasing the curvature
3) No any relationship between the focal length and the curvature
4) Any image does not form.
9. Stereoscopic vision is,
1) Ability to identify the colour of an object
2) Ability to determine the depth or height of the object
3) Ability to determine the speed of the object
4) Ability to determine the vision range
10. Glucoma is the result of,
1) High blood pressure 3) damage to the optic nerve
2) Diabetes 4) expose to hot sunlight

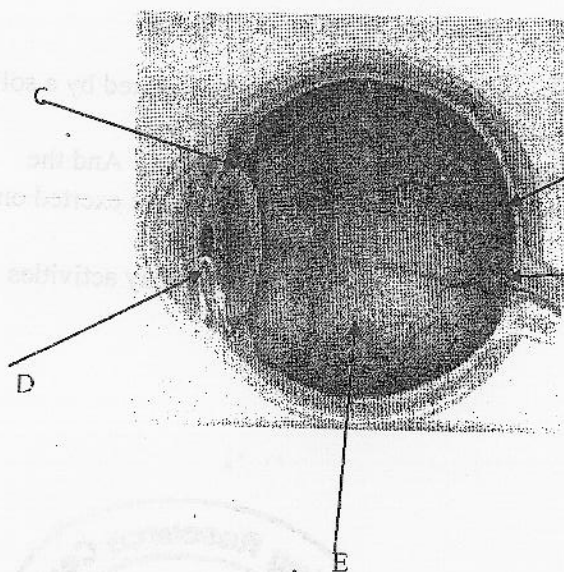


11. The part of the ear which belongs to the inner ear,
 1) Cochlea, auditory nerve, semicircular canal
 2) Tympanic membrane, auditory nerve, semicircular canal
 3) Cochlea, ossicles, ear lobe
 4) Semi-circular canal, auditory nerve, Eustachian tube
12. Only elements are,
 1) Na, Mg, H₂O 2) CuSO₄, H₂O, HCl 3) H, O Cl 4) Ca, Al, H₂O
13. Only homogeneous mixtures present in,
 1) Salt solution, fruit salad 3) Salt solution, sugar solution
 2) Sea water, mixture of motor 4) muddy water, porridge
14. The pressure was 50 Pa, when a perpendicular force was applied on a surface area of 5m². The force applied was,
 1) 250 N 2) 10 N 3) 1/10N 4) 5N
15. Image of an object should focus to get a clear vision is,
 1) Eye lens 2) iris 3) blind spot 4) retina
16. Method of separating various fuels from crude oil is,
 1) Steam distillation 3) Crystallization
 2) Fractional distillation 4) Evaporation
17. Here are some statements given by a student regarding the structure and the function of the ear
 a. Pinna (ear lobe) is a cartilaginous organ.
 b. Transmit auditory senses to the auditory nerve.
 c. Ossicles contribute to maintain the balance of body.
 Correct statements are,
 1) Only a and b 2) only a and c 3) only b and c 4) all a, b and c
18. Not a homo-atomic molecule,
 1) H₂O 2) H₂ 3) O₂ 4) CO₂
19. A compound which is not formed by the set of elements C, H and O is,
 1) Glucose 2) Acetic acid 3) Methane 4) sucrose
20. A perpendicular force of 90 N was applied on an area of 3m². What is the pressure exerted on the surface?
 1) 1/30 N 2) 300N 3) 30Pa 4) 270 Pa

(2x20=40)

- Answer 5 questions only

01. Microorganisms are favourable to humans and other living beings, but some are harmful.
- How can we separate organisms as microorganisms? (2marks)
 - Mention a beneficial effect and an adverse effect of micro-organisms separately. (2marks)
 - Mention 04 main categories of micro-organisms (4marks)
 - Name the micro-organisms which used in producing dairy products and vinegar separately. (2marks)
 - What is bio-remediation (2marks)
02. Micro-organisms are used in different fields by humans due to their beneficial effects.
- Mention 3 fields that use the beneficial effects of micro-organisms (3marks)
 - What do you mean by antibiotics? (2marks)
 - What is industrial microbiology? (2marks)
 - What happens in bio remediation? (2marks)
 - Mention three pathogens and name their diseases caused by them. (3marks)
03. Visionary sense and the auditory sense are given by the eye and the ear of our body.
- Identify the parts given in English letters in the figure below. (5marks)



- A patient told to a doctor that the letters of the books are not visible clearly
 - What is the defect of vision that patient suffering from? (1mark)
 - Mention a reason for your answer in (a) (1mark)
 - Draw the ray diagram of the eye with the defect of vision mentioned above (1mark)
 - How can we correct the above eye defect? (1mark)
- What is binocular vision? (1mark)
- Which part of ear contributes to maintain the balance of body? (1mark)
- Mention the range of audibility of a human ear (1mark)

04. i. Name 2 pure substances (2 marks)
 ii. What do you mean by compounds? (1 marks)
 iii. Name 2 characteristics of monoatomic mixture (2 marks)
 iv. Name a monoatomic molecule and a hetro -atomic molecule and draw their structures (4 marks)
 v. Find the answers by using the information regarding the element (3 marks)
 a) Mass number
 b) Number of protons
 c) Number of neutrons
05. Force is a pull or a push. This energy is used by humans in their day to day life. (3 marks)
 i. Mention 3 changes occur when applying a force on an abject. (1 marks)
 ii. What is known as point of application? (6 marks)
 iii. Graphically represent the forces acting on a wooden block given below (2 marks)
 a) Force 5 N to east
 b) Force 8 N to north
 c) Force 3N to west
 iv. Force is a vector quantity. Give reasons. (2 marks)
- 06.i) What do you mean by pressure? (2 marks)
- ii) Mention the relationship that can be used to calculate the pressure exerted by a solid object. (2 marks)
 iii) Mention two factors affecting on pressure? (2 marks)
 iv) Weight of a cubic box is 200N. It is kept on a horizontal plane surface. And the contact area of the surface of the box is 2m^2 . What is the pressure exerted on the horizontal surface? (3 marks)
 v) Mention 3 instances that we have to increase pressure in our day-to-day activities (3 marks)

