

(ix) Animal husbandry is the scientific management of

(A) Animal breeding (B) Culture of animals (C) Animal livestock (D) Rearing of animals

(a) (A),(B) and (C) (b) (B),(C) and (D) (c) (C) and (D) (d) (A) and (D)

(x) Pteridophyta do not have

(a) Root. (b) Stem (c) flowers (d) leaves

2. Answer in one word or a sentence:

(5x1=5)

(i) State Newton's first law of motion.

(ii) What is relative density of a substance .

(iii) Write one application of fractional distillation.

(iv) What do you mean by the term haemocoel?

(v) How can you differentiate a healthy person from a disease free person?

3. Fill in the blanks :

(5x1=5)

(i) A method to liquefy atmospheric gases is

(ii) Uniform circular motion is always

(iii) Relative charge of a proton and an electron is respectivelyand..... .

(iv) Pneumonia is an example of ----- disease.

(v) Fresh initiatives for increasing the water available for agriculture include ----- and -----

SECTION -B

4. From Newton's second law of motion obtain a mathematical expression for force .

OR

(3)

A force of 5N produces an acceleration of 8m/s^2 on a mass m_1 and an acceleration of 24m/s^2 on a mass m_2 . What acceleration would the same force provide if both the masses are tied together?

5. Derive the second equation of motion. (3)

6. (i) Convert 46°C to kelvin scale and 578K to celcius scale.

(ii) Which are the factors on which rate of evaporation depends and also explain how?
(1+2)

7. (i) If $Z= 11$ and $A=23$, what would be the number of neutrons in the element ? Also name the element .

(ii) Draw a sketch of chlorine atom showing its distribution of electrons in different shells according to Bohr's theory. (1+2)

OR

Explain Thomson's model of an atom. (3)

8. Enlist the characteristics of the phylum Echinodermata with special mention to its symmetry.

9. Give the disadvantages of use of pesticides. How can it be recovered?

10. Tissue specificity of the infection leads to very general seeming effects. Justify the statement with a proper example.

SECTION – C

11. (i) State the Universal Law of Gravitation.

(ii) What is 'G' ? What is its value ?

(iii) Write the importances of Universal Law of Gravitation (1+1+3)

OR

Write the differences between mass and weight. (5)

12. Total momentum of two bodies remains unchanged before and after collision . Justify this statement . (5)

13. (i) Write three differences between physical and chemical changes with examples.

(ii) Air is a mixture whereas water is a compound . Justify. (3+2)

14. (i) For the symbol of H, D and T tabulate three sub-atomic particles found in each of them.

(ii) Chlorine occurs in nature in two isotopic forms with masses 35u and 37u in the ratio of 3:1. Calculate the average atomic mass of chlorine atom on the basis of this data.

(3+2)

OR

Describe the Bohr's model of an atom.

(5)

15.(i) What are antibiotics?

(ii) How do they cause action against pathogens?

(iii) Why antibiotics does not work against virus?

16.(i) Why seeds need to be dehydrated before storing?

(ii) What are the other measures needed to be taken care of for storing food materials in graneries?

SECTION-D

17. With the help of a labelled diagram describe briefly an activity to show the separation of two miscible liquids by distillation. (3)

18. (i) Do all bodies immersed in a given fluid experience the same buoyant force? Explain.

(ii) A 100cm^3 block has a mass of 395g. Find its relative density. (2+1)

19. The teacher had shown a student a specimen R and asked him to find if it is Spirogyra. What features will the student look for the identification of the specimen?

