

This Question Paper contains 12 printed pages.

(Sections - A, B, C & D)

Sl.No.

11 (E)

(JULY, 2022)

Time : 3 Hours]

[Maximum Marks : 80

Instructions :

- 1) Write in a clear legible handwriting.
- 2) This question paper has four Sections A, B, C & D and Question Numbers from 1 to 54.
- 3) All questions are compulsory. There are only internal options.
- 4) The numbers to the right represent the marks of the question.
- 5) Draw neat diagrams wherever necessary.
- 6) New sections should be written in a new page. Write the answers in numerical order.

SECTION - A

From question numbers 01 to 24, answer all questions as directed.

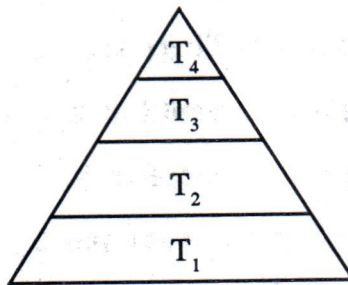
[Each question carries 1 mark]

[24]

Fill the blanks making the following statements true.

- 1) Due to the process of corrosion, _____ colour coating is seen on silver. [1]
- 2) Alkane which has eight carbon atoms, has _____ number of hydrogen atoms. [1]
- 3) Deficiency of _____ hormones in childhood leads to Dwarfism. [1]

- 4) When Tall pea plant (TT) and Short pea plant (tt) were hybridized, it produced all tall progeny because tallness is _____ trait? [1]
- 5) 1 kWh = _____ Joule (J). [1]
- 6) As shown in the figure, the given pyramid shows different Trophic Levels. _____ Trophic Level will receive maximum amount of energy. [1]



Write 'True' or 'False' for following statements.

- 7) Methanoic acid is responsible for inflammation from Nettle sting. [1]
- 8) Salivation, Blood pressure and Vomiting are voluntary actions. [1]
- 9) Hibiscus has unisexual flowers. [1]
- 10) In Domestic electric circuits, live wire has red insulation cover. [1]

Choose the correct option for the following given statements.

11) Which of the following metals is refined by Electrolytic refining? [1]

(i) Au (ii) Cu

(iii) Na (iv) K

(A) (i) and (ii)

(B) (i) and (iii)

(C) (ii) and (iii)

(D) (iii) and (iv)

12) Which of the following is not a homologous series? [1]

(A) CH_4

(B) C_2H_6

(C) C_3H_8

(D) C_4H_8

13) A trait in an organism is influenced by? [1]

(A) Paternal DNA only

(B) Maternal DNA only

(C) Both Paternal and Maternal DNA

(D) Neither Paternal nor Maternal DNA

14) Which of the following phenomena is related to the formation of Rainbow? [1]

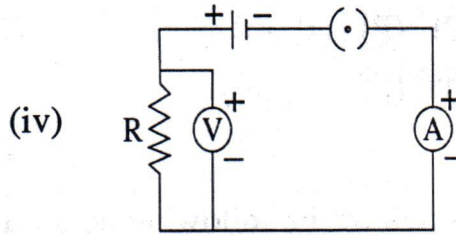
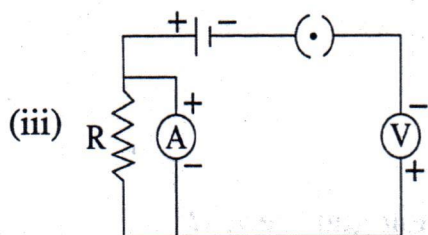
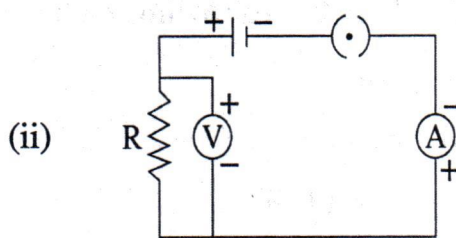
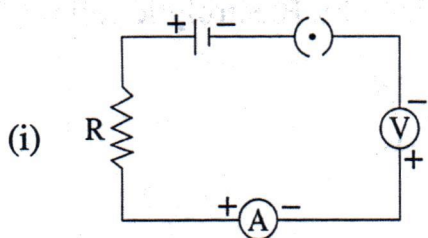
(A) Dispersion, Refraction and Reflection

(B) Refraction, Dispersion and Total internal reflection

(C) Refraction, Dispersion and internal reflection

(D) Dispersion, Scattering and Total internal reflection

15) In which of the following circuits, the components are connected properly? [1]



(A) (i)

(B) (ii)

(C) (iii)

(D) (iv)

16) Which of the following constitute a food - chain? [1]

(A) Grass, Wheat and Mango

(B) Grass, Goat and Human

(C) Goat, Cow and Elephant

(D) Grass, Fish and Goat

Answer the following questions as directed.

17) An element has electronic configuration 2, 8, 7. To which group of Modern Periodic Table does it belong? [1]

18) What regulates the exit of food from stomach and releases it in small amounts into the small intestine? [1]

19) How does the embryo get nourishment inside the mother's body? [1]

20) Define power of lens. [1]

21) Write full form of UNEP. [1]

22) State Fleming's right-hand rule. [1]

23) Complete the sentence.

In Modern Periodic Table as we move from left to right the atomic size of elements _____ [1]

24) Who am I? [1]

I am used to make filament of Bulbs.

SECTION - B


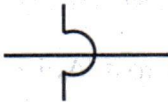


From question numbers 25 to 37, answer any 9 questions as directed, within the limit of 40 to 50 words [Each question carries 2 marks]. [18]

25) How will you test Acid and Base using Olfactory indicators? Explain it with an example. [2]

26) State four properties of Ionic compounds. [2]

27) What is Gangue? On what basis Gangue is removed from the Ore? [2]

- 28) What were the limitations of Newland's law of Octaves? [2]
- 29) What were the criteria used by Mendeleev in creating his Periodic Table? [2]
- 30) What is Lymph? Write its function. [2]
- 31) Draw a ray-diagram for concave mirror when object is placed between Centre of Curvature (C) and Principal Focus (F). Also write Position Nature and size of the image. [2]
- 32) An Ophthalmologist, Doctor Desai prescribed power + 1.5 D of corrective lens. Find the focal length of the lens and write the type of lens prescribed. [2]
- 33) Match the following : [2]

Components	Symbols
1. Plugkey (Open)	A) 
2. Plug key (Closed)	B) 
3. Wire crossing without joining	C) 
4. A wire joint	D) 

- 34) What is a Solenoid? Give the characteristics of magnetic field resulting from Solenoid. [2]
- 35) What precautions should be taken to avoid the overloading of domestic electric circuits? [2]
- 36) What can you as an individual do to reduce your consumption of the various natural resources? [2]
- 37) State the advantages of water stored in the ground. [2]

SECTION - C

From question numbers 38 to 46, answer any 6 questions as directed, within the limit of 60 to 80 words [Each question carries 3 marks]. [18]

- 38) Write one equation each for decomposition reactions where energy is supplied in the form of heat, light or electricity. [3]
- 39) Write the chemical formula, preparation and uses of Bleaching powder. [3]

- 40) - Take three test tubes and place clean iron nails in each of them.
- Label these test tubes A, B and C
 - Pour some water in test tube 'A' and cork it.
 - Pour boiled distilled water in test tube 'B' add about 1 ml of oil and cork it.
 - Put some anhydrous Calcium chloride in test tube 'C' and cork it.

Leave these test tubes for few days, write your observation for all three test tubes and regarding your observation give reason. [3]

- 41) Write three differences between Autotrophic Nutrition and Heterotrophic Nutrition. [3]
- 42) Draw neat and labeled diagram of Human brain. [3]
- 43) What is puberty? What sexual changes are seen during puberty? [3]
- 44) What are fossils? What do they tell us about the process of evolution? [3]
- 45) Explain series connection of Resistors and derive the formula of equivalent resistance. [3]
- 46) How is ozone formed? Write importance of ozone layer. [3]

SECTION - D

From question numbers 47 to 54, answer any 5 questions as directed, within the limit of 90 to 120 words [Each question carries 4 marks]. [20]

47) Describe an experiment to show Reaction between Zinc granules and dilute H_2SO_4 . [4]

48) Give chemical formula and draw the electron-dot structure of the following compounds. [4]

i) Ethane

ii) Ethanoic acid

49) Explain in detail the Blood circulation in human heart (Diagram not required). [4]

50) What is asexual reproduction? Explain Budding and Spore formation with diagram. [4]

51) Define the following terms related to spherical lens. [4]

i) Centre of curvature

ii) Principal focus

iii) Optical centre

iv) Focal length

- 52) Yashvi, student of standard 10th is sitting at the back of the classroom and is not able to read writings on the blackboard clearly, then what defect of vision she has? Explain. How can it be corrected [Diagram necessary].[4]
- 53) State principle and explain working of Electric generator with diagram.[4]
- 54) State advantages and major hazards of Nuclear Energy. [4]

