

BHARATIYA VIDYA BHAVAN'S V.M.PUBLIC SCHOOL, VADODARA
SESSION 2017-18
SAMPLE PAPER- 3

Class :X
Subject :Science

Max Marks: 80
Time Allotted: 3hrs

Instructions: All questions are compulsory.

Section A

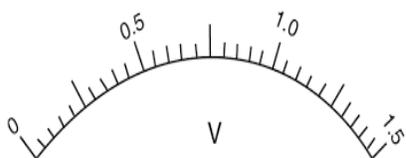
Answer the following questions.

- Q1 Define resistivity of a material. (1)
- Q2 State Maxwell's right hand thumb rule. (1)
- Q3 Plaster of Paris should be stored in a moisture proof container. Why?
Write the equation of Plaster of Paris with water. (2)
- Q4 A concave mirror produces the image of an object . The magnification produced is +2. (2)
- a) What is the nature of the image?
- b) What is the position of object ?
- Q5. Name those parts of the flower which serve the same function as the following do in the animals: -
(i) Testis (ii) ovary (iii) eggs (iv) Sperms. (2)
- Q6 a) Define potential difference between two points in a conductor. (3)
- b) A current of 2 A passes through a circuit for 1 minute. If potential difference between the terminals of the circuits is 3 V , what is the work done in transferring the charges?
- Q7 The image of an object placed at 60 cm in front of a lens is obtained on a screen at a distance of 120 cm from it. Find the focal length of the lens. What would be the height of the image if the object is 5 cm high? (3)
- Q8 Give the disadvantages of constructing big dams across the river. How does construction of dams across the river get linked with production of green house gases? (3)

- Q9 A student dropped few pieces of marble in dilute HCl contained in a test tube. The evolved gas was passed through lime water. Write balanced chemical equation for both the changes observed. (3)
- Q10(a) You have two solutions A and B. The pH of solution A is 6 and B is 8. Which of these is acidic and which one is basic? Justify your answer. (3)
- (b) A solution of substance X is used for white washing. Write the formula of X. (3)
- Q11(a) Iron is the most widely used metal, but it is never used in its pure state. Why? (3)
- (b) Why do ionic compounds have high melting points? (3)
- (c) What is an amalgam? (3)
- Q12. Explain the process of regeneration in Planaria. How is this process different from reproduction? (3)
- Q13. Name the glands present in the wall of the stomach that release secretions for the digestion of food. Write the three components of secretion that are released by these glands. (3)
- Q14. How can you as an individual contribute or make a difference in the management of [i] Water resources [ii] forest and wild life (3)
- Q15. Describe the post fertilization changes in the flower. (3)
- Q16a) What is hypermetropia? State the two causes of hypermetropia. (5)
- b) With the help of a ray diagram, show
- i) the eye defect hypermetropia.
- ii) correction of hypermetropia by using a lens.
- Q17a) Which effect of the electric current is utilised in the working of an electrical fuse? (5)
- b) Draw a schematic labelled diagram of a domestic circuit which has a provision of a main fuse, meter, one light bulb and a switch socket.
- c) State the function of an earth wire.
- Q18a) Name two elements you would expect to show chemical properties similar to Mg. What is the basis of your choice?

voltmeter ?

(2)



(b) Why the voltmeter is always connected in the parallel in an electric circuit ?

Q24 (a) Why is glacial acetic acid called so?

(b) What is meant by sodium oleate soap?

(2)

Q25 (a) What happens when a piece of Zn is added to dil. solution of sulphuric acid?

(b) what are the raw materials required for the manufacture of ordinary soap?

(2)

Q26 It is said that the process of photosynthesis is essential for survival of life on earth.

Give two reasons.

(2)

Q27 Why germinating seeds should be kept moist during respiration experiment?

(2)

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