

Dr.K.K.R GOWTHAM E.M HIGH SCHOOL :: GUDIVADA

Class : X – All Section

PRACTICE TEST - 3

Time : 2.45 Min.

Sub : Chemistry

Marks : 50 M

Instructions:

1. There are four sections and 33 questions in the paper.
2. Answers should be written in a given answer booklet.
3. There is internal choice in Section-IV.
4. Write all the questions visible & legibly.
5. 15 minutes are given for reading the question paper and 2.30 hours given for answering questions.

Section- I

I. Answer the following questions

12×½ =6 M

1. Why does pure acetic acid not conduct electricity ?
2. Fresh milk has a pH of 6. Explain why the pH changes as it turns into curd.
3. Write the four quantum numbers for the differentiating electron of sodium (Na) atom.
4. The wavelength of a radio wave is 1.0 m. Find its frequency.
5. Identify the element that has the larger atomic radius in each pair of the following and mark it with a symbol(✓)
(i) Mg or Ca (ii) Li or Cs (iii) N or P (iv) B or Al
6. List the factors that determine the type of bond that will be formed between two atoms.
7. List three metals that are found in nature as oxide ores.
8. Write the names of any two ores of iron.
9. Mention two methods which produce very pure metals.
10. Name the simplest ketone and write its molecular formula.
11. Name the carboxylic acid used as a preservative.
12. Name the product other than water formed on burning of ethanol in air.

Section-II

II. Answer the following questions

8×1 =8 M

13. Dry hydrogen chloride gas does not turn blue litmus to red whereas hydrochloric acid does. Why ?
14. Which electronic shell is at a higher energy level Kor L?
15. An element X belongs to 3rd period and group 2 of the periodic table. State
a) The no. of valence electrons b) The valency
c) Whether it is metal or a non-metal.
16. Represent each of the following atoms using Lewis notation :
a) Beryllium b) Calcium c) Lithium
17. Define the terms : i) gangue ii) slag.
18. Write the IUPAC name of the next homologous of CH_2CH_3 .
19. Why does carbon form compounds mainly by covalent bonding?
20. Draw the shape of soap molecule ?

Section - III

III. Answer the following questions

8×2 =16 M

21. How does the flow of acid rain into a river make the survival of aquatic life in a river difficult ?
22. What information does the electronic configuration of an atom provide ?
23. What is an orbital? How it is different from Bohr's orbit?

24. On the basis of atomic numbers predict to which block the elements with atomic number 9, 37, 46 and 64 belong to?
25. A chemical compound has the following Lewis notation:
- a) How many valence electrons does element Y have ?
- b) What is the valency of element Y ?
- c) What is the valency of element X?
- d) How many covalent bonds are there in the molecule ?
- e) Suggest a name for the elements X and Y.
26. Represent each of the following molecules using Lewis notation :
- a) Bromine gas (Br_2) b) Calcium chloride (CaCl_2)
- c) Carbon dioxide (CO_2)
- d) Which of the three molecules listed above contains a double bond ?
27. Magnesium is an active metal if it occurs as a chloride in nature, which method of reduction is suitable for its extraction ?
28. Give an example for esterification reaction.



Section - IV

IV. Answer the following questions

5×4=20 M

29. How to you prepare your own indicator using beetroot ? Explain.
(or)
Explain the significance of three quantum numbers in predicting the positions of an electron in an orbit.
30. Write an activity to know whether the acid is strong or weak.
(or)
How do you appreciate the role of electronic configuration of the atoms of elements in periodic classification ?
31. How do bond energies and bond lengths of molecule help us in predicting their chemical properties? Explain with examples.
(or)
Collect information about extraction of metals of low reactivity silver, platinum and gold and prepare a report.
32. What is octet rule ? How do you appreciate role of the 'octet rule' in explaining the chemical properties of elements?
(or)
What is activity series ? How does it help in extraction of metals ?
33. Draw a neat diagram of reverberatory furnace and label it neatly.
(or)
Draw a diagram to show the reaction of acids with metals .

**** All the best ****