

SEMESTER—TWO

CHEMISTRY

Class XII

Sample Paper—2

Max. Marks: 50

Time Allowed: 90 minutes

General Instructions:

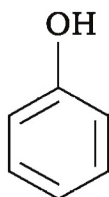
- (i) This question paper consists of 40 questions in 4 sections.
- (ii) Section A consists of 10 Objective type questions carrying 1 mark each.
- (iii) Section B consists of 10 Fill in the blanks type questions carrying 1 mark each.
- (iv) Section C consists of 10 True or False statement type questions carrying 1 mark each.
- (v) Section D consists of 10 Short answer type questions carrying 2 marks each.

Section A

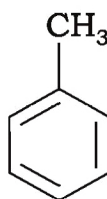
Select and write one most appropriate option out of the four options given for each of the questions 1–10.

1. Which of the following metals can be extracted by smelting?
 - (a) Aluminium
 - (b) Magnesium
 - (c) Iron
 - (d) None of these.
2. In the froth-floatation process for beneficiation of the ores, the ore particles float because
 - (a) they are light
 - (b) their surface is not easily wetted by water
 - (c) they bear electrostatic charge
 - (d) they are insoluble.

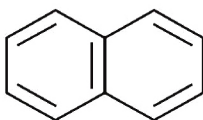
3. Which of the following beneficiation processes is used for the mineral bauxite ?
- (a) Froth floatation (b) Leaching
(c) Liquefaction (d) Magnetic separation.
4. Which type of the coal has the highest heating value?
- (a) Anthracite (b) Bituminous
(c) Sub-bituminous (d) Lignite
5. Syngas is a mixture of
- (a) Hydrogen & Carbon monoxide
(b) Hydrogen & Carbon dioxide
(c) Helium & Carbon monoxide
(d) None of these
6. Which of the following is true about ammonia?
- (a) Ammonia is a colourless gas.
(b) Ammonia is lighter than air.
(c) Ammonia is insoluble in water.
(d) Ammonia liquefies on cooling under pressure.
7. Which of the following is a non-benzoic compound?



(a) Phenol

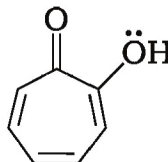


(b) Toluene



Napthalene

(c) (Fused rings)



(d) Tropolone

8. Which of the following is an acidic oxide?
- (a) CaO (b) K₂O
(c) CO₂ (d) BaO
9. is something that occupies space and has mass.
- (a) Matter (b) Thought
(c) Love (d) None of these

10. How many base units are there?
- | | |
|-----------|-------------------|
| (a) Three | (b) Five |
| (c) Seven | (d) None of these |

Section B

Fill in the blanks with a suitable word for each of the questions 11–20.

11. The process of removal of gangue from ore is known as
12. Aluminium is obtained from Al_2O_3 by reduction.
13. In the metallurgical process for electrorefining of the metal, the anode is made of metal.
14. Slag is a product formed during smelting by combination of and impurities.
15. is called oil of vitriol.
16. discovered chlorine.
17. A reaction which cannot take place in the reverse direction is called the reaction.
18. is the speed at which reactants are converted into products.
19. Liquid ammonia is used as a
20. Hydrocarbons are made up of and

Section C

State whether the following statements are true or false for each of the questions 21–30.

21. Subbituminous coal typically contains 35–45% carbon,
22. The process of cooling coal in the absence of air is called the destructive distillation of coal.
23. Coal is primarily used as fuel to generate electric power.
24. An unimportant use of syngas is as a **feedstock** for the production of an amazing number of chemicals.
25. Synthesis gas (syngas in brief) is a gas mixture of predominantly CO and H_2O .
26. In the **laboratory**, dinitrogen is prepared by heating aqueous solution of ammonium chloride with sodium nitrite.
27. Ammonia is hydride of nitrogen.
28. Ammonia acts as a Lewis base due to the presence of a lone pair of electrons on nitrogen.

29. The impure acid is generally yellow due to the presence of nitrogen dioxide as impurity.
30. **Noble metals** like **gold** and **platinum** react sharply with nitric acid.

Section D

Answer each of the questions 31–40.

31. What do you mean by alloy? Give some examples.
32. What is cement. Write down its composition.
33. What is dry ice? List its use.
34. Who discovered nucleus of an atom?
35. List some uses of sulphur dioxide.
36. What do you mean by sulphur?
37. What do you understand by halogens?
38. What do you understand by electronegativity?
39. Who discovered chlorine?
40. Where does calcium sulphate occur?