

**BALABHADRA SKILL DEVELOPMENT ACADEMY**  
**SCIENCE QUESTION BANK - 9**

Time: 1 Hour

Full marks: 43

Pass marks: 33

1. Credit for the discovery of electron and proton goes to \_\_\_\_ and\_\_\_\_, respectively.
2. JJ Thomson proposed that electrons are embedded in a \_\_\_\_ .
3. Rutherford's \_\_\_\_ scattering experiment led to the discovery of the atomic nucleus.
4. Rutherford's model of the atom proposed that a very tiny nucleus is present inside the \_\_\_\_ and \_\_\_\_ revolve around this nucleus.
5. The stability of the \_\_\_\_ could not be explained by Rutherford's Model.
6. \_\_\_\_ model of the atom was more successful.
7. Neils Bohr proposed that electrons are distributed in \_\_\_\_.
8. If the atomic shells are complete, then the atom will be \_\_\_\_ and \_\_\_\_ reactive.
9. Cathodic rays are \_\_\_\_.
10. Anode rays are \_\_\_\_.
11. A \_\_\_\_ is a neutral particle.
12. \_\_\_\_ of an atom are designated as K,L,M,N,....
13. \_\_\_\_ is the combining capacity of an atom.
14. The \_\_\_\_ of an element is the same as the number of protons in the nucleus of its atom.
15. The \_\_\_\_ of an atom is equal to the number of nucleons in its nucleus.
16. \_\_\_\_ are atoms of the same element, which have different mass numbers.
17. \_\_\_\_ are atoms having the same mass number but different atomic numbers.
18. Elements are defined by the number of \_\_\_\_ they possess.
19. The outermost orbit cannot have more than \_\_\_\_ electrons.
20. According to \_\_\_\_ and \_\_\_\_ model, the number of electrons accommodated in different orbits or shells is fixed.
21. The fundamental organisational unit of life is \_\_\_\_.
22. Cells are enclosed by \_\_\_\_ membrane and are composed of \_\_\_\_ and \_\_\_\_.
23. The \_\_\_\_ is an active part of the cell.
24. Cell membrane regulates the movement of materials between the \_\_\_\_ of the cell and \_\_\_\_ .
25. In Plant, a cell wall is composed mainly of \_\_\_\_ and is located outside \_\_\_\_.
26. The presence of the cell wall enables the cells of\_\_\_\_ , \_\_\_\_ and \_\_\_\_ to exist in hypotonic media without bursting.
27. The nucleus in eukaryotes is separated from the \_\_\_\_ by double-layered membrane and it directs the life processes of the cell.
28. RNA stands for \_\_\_\_ and DNA stands for \_\_\_\_.
29. The Golgi apparatus consists of stacks of \_\_\_\_ that function in the \_\_\_\_ , \_\_\_\_ and \_\_\_\_ of substances manufactured in the cell.
30. Most plant cells have large membranous organelles called\_\_\_\_ , which are of \_\_\_\_ types.

31. Plastids are \_\_\_\_\_ and \_\_\_\_\_.
32. Chloroplasts contain \_\_\_\_\_ and they perform \_\_\_\_\_.
33. In Plant Cells, the primary function of \_\_\_\_\_ is storage.
34. \_\_\_\_\_ cells have no membrane-bound organelles.
35. In Prokaryotic cells, chromosomes are composed of only \_\_\_\_\_, and they have only very small ribosomes as organelles.
- 35(a) Prokaryotic cells, have \_\_\_\_\_ as organelles.
36. \_\_\_\_\_ in organisms divide for growth of body, for replacing dead cells, and for forming gametes for reproduction.
37. RNA is found in the \_\_\_\_\_.
38. A gene is the segment of \_\_\_\_\_.
39. \_\_\_\_\_ discovered the presence of neutrons in the \_\_\_\_\_ of an atom.
40. Three sub-atomic particles of an atom are \_\_\_\_\_, \_\_\_\_\_ and \_\_\_\_\_.
41. \_\_\_\_\_ and \_\_\_\_\_ are called nucleon.
42. Out of sub-atomic particles \_\_\_\_\_ are negatively charged, \_\_\_\_\_ are positively charged and \_\_\_\_\_ are neutral.
43. The mass of \_\_\_\_\_ and \_\_\_\_\_ are taken as one unit each.

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**SCIENCE QUESTION BANK – 9 (ANSWER)**

1. J.J. Thomson, E. Goldstein
2. positive sphere
3. alpha-particle
4. atom, electrons
5. atom
6. Neils Bohr
7. different shells with discrete energy around the nucleus
8. stable, less
9. moving charged particles
10. positively charged particles
11. Neutron
12. Energy Shells
13. Valency
14. atomic number
15. mass number
16. Isotopes
17. Isobars
18. Protons
19. 8
20. Bohr, Bury
21. cell
22. Plasma, lipids, proteins
23. cell membrane
24. interior, outer environment
25. cellulose, cell membrane
26. plants, fungi, bacteria
27. cytoplasm
28. Ribonucleic Acid, Deoxyribonucleic Acid
29. membrane-bound vesicles, storage, modification, packaging
30. Plastids, two
31. chromoplasts, leucoplasts
32. Chlorophyll, photosynthesis
33. leucoplasts
34. Prokaryotic
35. nucleic acid
- 35(a) Ribosomes
36. Cells
37. Nucleus of Cell
38. DNA
39. J Chadwick, nucleus
40. Electron, Proton, Neutron

- 41. Protons, Neutrons
- 42. Electrons, Protons, Neutrons
- 43. Proton, Neutron

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