Important Questions - Physics.

I. Two marks:

Physics:

1. Define inertia
2. Types of forces
3. State Newton's second law
4. Spanner with long handle
5. How does an astronaut float in a space shuttle.
6. Refractive index *
7. Ray Diagram
8. Snell's law
9. Rayleigh's law of scattering
10. Causes of Myopia. *
11. Sky appears blue in colour *
12. Traffic signals red in colour.
13. State Boyle's and Charle's law *
14. Why is tungsten used in bulbs ?
15. Role of earth wire in domestic * circuit.
16. State Ohm's law *
17. Connection used in domestic appliances
18. Why does sound travel faster on a rainy day ?
19. Ceilings of concert hall are curved ? *
20. Two cases for No Doppler effect *
21. State Soddy and Fajan's law
22. Uses of Isotopes in Agriculture
23. X-rays taken often.

Four marks

1. Differentiate Mass and Weight *
2. Types of inertia
3. Newton's law of motion
4. Deduce Newton's IInd law
5. Rocket propulsion
6. Applications of Universal law of gravitation
7. Differentiate concave and convex lens *
8. Properties of light. *
9. Rules for obtaining images formed by convex lens.
10. Distinguish linear and areal expansion
11. Distinguish real gas and ideal gas. *
12. Distinguish conductivity and resistivity.
13. Advantages of LED TV *
14. Merits of LED Bulb *
15. i) Electric current ii) Name and define its unit. iii) Instrument to measure.
16. Ultra sonic vibration and uses
17. Echo and its uses.
18. Natural and artificial radioactivity.
19. Cell phone towers placed far away from residential area.

Seven marks:

1. State and prove the law of conservation of linear momentum
2. State Universal law of gravitation
3. Differentiate Myopia and Hyper metropia *
4. Compound Microscope. *
5. Derive the Ideal gas equation *
6. a) Joules law of heating *
   b) Nickel and chromium alloy
   c) Fuse wire
7. Compare α, β and γ rays. *
8. Nuclear reactor and its essential parts.

Important Questions - Chemistry

Two marks

1. Relative atomic mass. *
2. Atomicity example. *
3. Examples for Hetero diatomic molecule *
4. Percentage of N in NH_3.
5. Calculation of Molecular mass
6. What is rust? *
7. Condition for rusting of iron. *
8. Amalgam *
9. Alloys and its types.
10. Binary solution
11. Hydrated salt
12. Classify hygroscopic, deliquescence
13. Solubility
14. Problem based on Mass percentage
15. Why does the reaction rate of a reaction increase on raising temperature?
16. Combination reaction. Example.
17. pH and pOH. problem.
18. Simplest Ketone. S.F
19. How is ethanoic acid prepared from ethanol? *

Four marks and Seven mark

1. Modern Atomic theory *
2. Relationship between Relative molecular mass and vapour density.
3. Methods for making Alloy.
4. Reason for alloying *
5. Methods to prevent corrosion. *
6. Aqueous solution and non aqueous solution
7. Saturated and unsaturated solution *
8. Factors affecting solubility *
9. What Happens when $MgSO_4.7H_2O$ heated? *
10. Hygroscopic and deliquescence * *
11. Reversible and irreversible reaction * *
12. Double displacement reaction
13. Importance of pH in daily life. *
14. Homologous series * *
15. Manufacture of Ethanol *
16. Soaps and Detergent - Difference *
17. Mechanism of cleansing action of soap. *

Important Questions - Biology

Two marks

1. Short note on mesophyll
2. structure of Oxysome
3. Three basic tissue system in flowering plants. *
4. What is photosynthesis and where in a cell does it occur?
5. Respiratory Quotient *
6. Reaction for photosynthesis
7. Diastema
8. Why are the ring of cartilages found in trachea of rabbit?
9. Importance of valves in heart. *
10. Rh factor *
11. Why sinoatrial node called pacemaker of heart? *
12. Guard cells are responsible for opening and closing stomata.
13. Name the parts of Hind brain
14. Structures involved in the protection of Brain.
15. Reflex arc.
16. Synthetic auxin
17. Bolting *
18. Physiological activities of Abscisic acid.
19. Role of parathormone *
20. Personality hormone

Four Marks

1. Differentiate Monocot and Dicot root. *
2. Aerobic and anaerobic respiration
3. Light dependent and Light independent reaction.
4. Parasitic adaptations in leech.
5. Locomotion in leech.
6. Artery and Vein
7. Transpiration and its importance *
8. Leucocytes - Classification
9. Functions of Blood *
10. Medullated and non-medullated Fibre
11. Structure of Neuron - Diagram *
12. Endocrine and Exocrine gland
13. Gaseous plant hormone
14. Physiological effects of Gibberellins. * *
15. Estrogen and its role
16. Why did mendel select pea plant for his experiment? *
17. A pure tall (TT) is crossed with pure dwarf plant (tt). Explain
18. Ethnobotany and write its importance *
19. How can you determine the age of fossils?
20. Homologous and analogous organs.

21. Stress Hormone in Plants.
22. Triple fusion
23. Characteristics of insect pollinated flowers.
24. Secondary sex organs in male
25. Colastrum
26. Pollination and its importance.
27. Pollen grain - Diagram
28. Structure of Human Sperm
29. Phenotype and Genotype *
30. Allosomes
31. Why is Archaeoptery considered to be a connecting link?
32. Improved Characteristics of Wheat.
33. Two maize hybrids rich in amino acid.
34. Applications ofDNAFingerprinting technique.
35. Somatic and germline gene therapy.
36. Factors for obesity
37. Metastasis
38. How does insulin deficiency occur?
39. What would happen if the habitat of wild animals disturbed.
40. Agents of Soil erosion
41. Why fossil fuels to be conserved?

21. Out breeding and inbreeding.
22. Biofortification.
23. Importance of Biotechnology in medicine. *
24. Tranmission of HIV *
25. Cancer cell and normal cell
26. Type 1 and Type 2 Diabetes mellitus.
27. Precautions of Heart Disease. *
28. How are e-wastes generated
29. Importance of Rain water harvesting. *
30. Advantages of Using Biogas
31. Importance of forest. * *

Seven marks :

1. Three stages of cellular respiration
2. Male reproductive system of rabbit
3. Structure of Neuron *
4. Functions of Brain
5. Went Experiment
6. Structure of Ovule with Diagram
7. Mendel's Difybrid Cross
8. Structure of Chromosome
9. Suggest measure to overcome alcoholic problem.
10. Prevention of Heart Disease *
11. Solid waste
12. Rain water harvesting.