Answer Paper - Part I

01	4	02	3	03	3	04	1	5	2	06	2
07	3	08	4	09	3	10	4	11	4	12	3
13	4	14	2	15	1	16	2	17	4	18	3
19	3	20	1								

Part - II

01 (1) 5 (01m.) (2) 4 (01m.) (3) Fe (01m.) (4) Sodium Chloride (01m.)
(5) C, O, N, H (02) (6) (a) Heating - HCl + Mg (01m.) (b) Cooling - $CO(NH_2)_2 + H_2O$ (01m.)
(7) K, Zn, Fe, Au - Metals (for two metals) (01m.) / C - Non metals (01m.)
(8) H_2 (01m.) (9) Anthonie Lavoisier (01m.)

02 A (1) Volumetric Flask (2) Burette / Pipette
(3) Multi meter (4) Thistle funnel (½ x 4 = 02)
B (1) (a) Yeast (01m.) (b) Acitic acid / Vinegar (0m.1)
(2) The sweet sap that exudes out of the cut end of an unopened flower of a coconut tree. (01m.)
(3) Vinegar production (01m.) (4) Lactic acid (01m.)
(5) Penicillin / Ampicillin / Methicillin / Oxacillin (01m.)
(6) (a) Plasmodium (b) Entamoeba (01m.)
(7) Light microscope and electron microscope (01m.)
(8) 1500 / 2000 (01m.) (9) for correct basic steps written in order (01m.)

03 (1) Acceleration $= \frac{\text{Change of velocity}}{\text{time taken}} = \frac{12ms^{-1}}{4\ s} = 3ms^{-2}$ (01m.) (01m.)
(2) $\frac{\cancel{36} \times 1000\ m}{\cancel{3600}\ s} = 10ms^{-1}$ (01m.)
(3) Change in the position of an object. (01m.)
(4) Primary energy resources / secondary energy resources (02m.)
(5) Primary energy resources. (01m.)
(6) (a) Solar energy (01m.) (b) Bio mass/ Fire wood / Bramble (01m.)
(c) electrical energy (01m.)
(7) Solar energy / wind / Tidal power / Fuel / cells / Bio diesel etc., (for 4 correct answers) (02m.)

04 (1) Eric Drexler (01m.) (2) plant cell / animal cell / bio cell (01m.)
(3) (a) do not become dirty / do not scratch (01m.)
(b) producing super conductors / conductors / with minimum resistance (01m.)
(c) absorbing heat / do not remain dirt / particles / enduring cold condition (01m.)
(4) Manufacturing pooisonous chemicals and weapons / Pollution caused by nano particles enter into soil, water and atmosphere (02m.)
(5) Substances with metallic qualities which formed by mixing metals with other metal or non metals. (01m.)
(6) (a) Copper, Zinc (01m.) (b) Copper, Tin, Lead (01m.)
(c) Iron, Carbon (01m.) (d) Nikel , Chromium (01m.)

05 (1) 1 - electric cells / 2 - Dynamo / 3 - Solar cells (03m.)
(2) For the correct diagram. (01m.) For naming correctly. (02m.)
(3) electric cells can be used again and again by charging using electric current. (01m.)
(4) (a) Water + Carbon dioxide gas (01m.) (b) Water + Ethyl alcohol (01m.)
(c) Zinc + Copper (01m.) (5) (a) Water (01m.) (b) Sugar (01m.)

06 (1) Nicolas Copernicus (01m.)
(2) (a) Earth is spherical (b) presenting geo - centric mdoel (c) haleo - centric model (03m.)
(3) For correct constellation. (02m.) (4) Naming two stars. (02m.)
(5) 12 (01m.) (6) Aries, Taurus, Gemini, Cancer, Leo, Virgo (03m.)

Marks Part - I 2 x 20 = 40 Part - II 12 x 5 = 60 (100 Marks)