

I. Answer the following questions:

1. Preliminary contracts are ----- 1
 - a) Binding on the company
 - b) Binding on the company, if ratified after incorporation
 - c) Binding on the company, after incorporation
 - d) Not binding on the company
2. State True or False: 1
Every company must file Articles of Association.
3. List the documents required for the incorporation of a 4
company?
4. Briefly explain the term “Return of Allotment”. 4
5. a) What is a prospectus? Is it necessary for every company to file a 4
prospectus? (OR)
b) What is the meaning of “certificate of Incorporation”?
6. Distinguish between ‘ Memorandum of Association’ and ‘Articles of 5
Association’.
7. a) What is a “Memorandum of Association”? Briefly explain its 6
clauses. (OR)
b) What does Articles of Association generally contains?

I. Answer the following:

5x1=5

1. State and explain Torricelli's law.
2. a) State Stoke's law
b) The terminal velocity of a copper ball of radius 2.0mm falling through a tank of oil at 20°C is 6.5cm s⁻¹. Compute the viscosity of the oil at 20°C. Density of oil is 1.5 X10³ kgm⁻³, density of copper is 8.9X10³ kgm⁻³.
3. Explain – Venturi –Meter
4. A fully loaded Boeing aircraft has a mass of 3.3X10⁵kg. Its total wing area is 500 m². It is in level flight with a speed of 960 km/h.
 - a) Estimate the pressure difference between the lower and upper surfaces of the wings.
 - b) Estimate the fractional increase in the speed of the air on upper surface of the wing relative to the lower surface. ($\gamma = 1.2 \text{ kgm}^{-3}$)
5. Explain Surface Energy and Surface Tension.