**Dr Mohd Abu Zaid**

**8th Assignment for MSc Biochemistry Semester 4 subject Clinical Biochemistry**

**Fill ups**

1. In Respiratory alkalosis pCO2 is\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
2. The extreme ranges of pH, beyond which life is not possible \_\_\_\_\_ and \_\_\_\_\_\_.
3. The osmolality of plasma varies from \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ are secreted in response to the stimulation of atrial stretch receptors
5. When H+ > 42 nmol/L in body it results in\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
6. The hypovolemia stimulates ADH secretion, causing \_\_\_\_\_\_\_\_\_\_\_\_\_\_ and hyponatremia
7. Hypertonic Expansion is associated with \_\_\_\_\_\_\_\_\_\_\_ that often leads to metabolic alkalosis.
8. : Primary deficit of bicarbonate results in condition called\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Short notes**

1. Give the classification of Acid-Base Disturbances
2. Differentiate between metabolic and respiratory acidosis.
3. Give the Main causes of Metabolic acidosis and how it is corrected in body?
4. Describe the major factors controlling water balance
5. How Plasma osmolality can be measured with relation to effective osmole concentration of. Solutes?
6. Define the following terms
   1. Osmolar Gap
   2. Effective Osmolality
   3. Dilutional hyponatremia.
7. Differentiate between Angiotensin- I and Angiotensin- II .
8. Explain the role of Albumin in maintaining this osmotic pressure.

**Essay type questions**

1. Write a note on disturbances in acid-base balance.
2. Explain the various mechanisms rsponsible for regulation of sodium and water balance in the body fluids.
3. Discuss the different abnormalities due to fluid and electrolyte balance.