17/5/23
SUM-2023

Seat Number | | | | | | |

PANKH-55

BP-104-T

Pharmaceutical Inorganic Chemistry-I

(711104)

Total Pages : 5]

Time : 3 Hours **Max Marks : 75**

Note : (1) Do not write anything on question paper except Seat No.

(2) *All* questions are compulsory.

(3) No supplement will be provided.

(4) Draw the labelled diagram wherever necessary.

10

1. (A) Multiple choice questions :

(*i*) The lead acetate cotton plug is used in limit test of arsenic to trap :

(*a*) Arsine gas (*b*) H_2S gas

(*c*) H_2 gas (*d*) Halogens

(*ii*) Alcohol is used in barium sulphate reagent to prevent :

(*a*) Saturation

(*b*) Supersaturation

(*c*) Turbidity

(*d*) Opallescence

P.T.O.

(iii) Which of the following is additional component of Sorenson's buffer solution ?

(a) NaOH (b) NaCl

(c) KCl (d) KOH

(iv) Acidic buffer consists of weak acid and :

(a) Strong acid

(b) Weak base

(c) Salt of weak acid

(d) Salt of weak base

(v) The body fluid found within the cells is called :

(a) Plasma

(b) Intracellular fluid

(c) Extracellular fluid

(d) Water

(vi) Hyperkalemia is the :

(a) Decreased Ca level

(b) Increased Ca level

(c) Decreased K level

(d) Increased K level

(*vii*) Dental cement consists of :

(*a*) Zn + Eugenol (*b*) Na + Mannitol

(*c*) Al + Cresol (*d*) None of these

(*viii*) Antacids are used in combination with :

(*a*) Alginic acid

(*b*) Mg trisillicate

(*c*) Semithicone

(*d*) All of the above

(*ix*) Mechanism of action of buffer is based on :

(*a*) Henderson Hasselbalch equation

(*b*) Crompton's equation

(*c*) Sorrenson's equation

(*d*) Ilkovic's equation

(*x*) Patient of type I achlorhydria is able secrete HCl upon stimulation with :

(*a*) Dil. HCl (*b*) NH_4Cl

(*c*) Histamine (*d*) All of these

(B) Answer the following in short : 10

(a) Why antacid preparations are always used in combination ?

(b) Why thioglycolic acid is used in limit test for Iron ?

(c) What is the difference between water for injection and sterile water for injection ?

(d) Define protectives and adsorbents with examples.

(e) Define cations and anions with examples.

2. Attempt any *two* : 20

(a) Explain the role of iron in body. Write in detail the preparation, properties and uses od ferrous sulphate.

(b) Define antacid. Give its characteristics. Explain preparation, properties, assay and uses of any *one* aluminium containing compound used as antacid.

(c) Define purity and impurity. Explain in detail the different sources of impurities in pharmaceutical substances.

3. Attempt any *seven* questions : 35

(a) Explain limit test for lead.

(b) Explain the electrolytes uses for replacement therapy.

(c) Give the official procedure for limit test for sulphate.

(*d*) What are the uses of protectives and adsorbents ? Give properties and uses of Bismuth subcarbonate.

(*e*) Enlist buffer systems of body. Explain any *two*.

(*f*) Write a short note on anticaries agents.

(*g*) What is Cyanide poisoning ? Explain its treatment.

(*h*) Define and exemplify with mechanism the astringents.

(*i*) Write a note on half life and measurement of radioactivity.