Question Paper

Exam Date & Time: 29-Nov-2017 (09:30 AM - 12:30 PM)

S3

MANIPAL UNIVERSITY

MANIPAL COLLEGE OF PHARMACEUTICAL SCIENCES
END SEMESTER THEORY EXAMINATIONS - NOVEMBER 2017
PROGRAM : BPHARM SEMESTER I
DATE : 29-11-2017
TIME : 9:30AM - 12:30PM
Pharmaceutical Inorganic Chemistry [PCH-BP104T]

Marks: 75 **Duration: 180 mins.**

I Multiple Choice Questions (MCQs)

Answer all the questions. **Section Duration: 30 mins**

1) Neutral formaldehyde is added in the assay of: (1)
Zinc Oxide | sodium bicarbonate | ammonium chloride | aluminium hydroxide

2) The compound used in the treatment of achlorhydria is: (1)
Dilute Nitric Acid | Dilute Hydrochloric Acid | Dilute Sulphuric Acid | Dilute Acetic Acid

3) Zinc Oxide is used as: (1)
cements and fillers in dentistry | anti-caries agent | dentifrice | antidote

4) The electrolytes(in the form of ions) in human body are expressed by the unit (1)
milligrams/liter | nanograms/liter | mEq/liter | grams/liter

5) Magnesium Sulphate has the synonym of: (1)
rochelle salt | emetic tartar | gypsum salt | epsom salt

6) The following formulation is known as an antacid combination: (1)
gelusil MPS | milk of magnesia | aluminium hydroxide gel | simethicone

7) Sodium Bicarbonate can be assayed by: (1)
neutralization titration | non-aqueous titration | argentometric titration | precipitation titration

8) One of the following compound is used as an antidote: (1)
ammonium chloride | potash alum | sodium thiosulphate | zinc sulphate

9) Boric acid acts as anti-microbial by which of the following mechanism: (1)
by oxidation | by protein precipitation | by halogenation | by cellwall inhibition

10) The following compound is also known as double salt: (1)
potash alum | ferrous ammonium citrate | sodium potassium tartarate | sodium orthophosphate

11) The following formulation is called as life saving compound: (1)
aludrox mixture | ORS salt | milk of magnesia | epsom salt

12) The extracellular concentration of potassium is (1)
3.5-5.5 mEq/litre | 10-15 mEq/litre | 130-140 mEq/litre | 50-60 mEq/litre

13) Chlorinated lime can be assayed by: (1)
iodometric method | neutralization method | complexometric method | diazotization method

14) The following three electrolytes collectively responsible for the creation and conduction of action potential in human body: (1)
sodium, potassium, chloride | sodium, potassium, phosphate | sodium, potassium, calcium | calcium, potassium, chloride

5) Ammonium Chloride can be used as: (1)
expectorant anti-microbial antacid cathartic

16) Weak iodine solution is known as: (1)
iodine tincture aqueous iodine solution lugol's solution potassium polyiodide

17) One of the following compound is used as in the treatment of cyanide poisoning: (1)
potash alum antimony potassium tartarate sodium thiosulphate copper sulphate

18) One of the following radiation travels at the speed of the light. (1)
alpha radiation gamma radiation beta radiation positrons

19) One of the following compound is an example for double salt: (1)
sodium potassium tartarate antimony potassium tartarate potassium aluminium sulphate aluminium hydroxide gel

20) One of the following is used as an unit for the measurement of radioactivity: (1)
torr bacquerel cusecs moles

II Long Answers

Answer all the questions.

1) a) Define impurity. What are the possible sources of impurities? (10)
b) How do you carry out the limit test for sulphates in the following samples:
i) sodium bicarbonate ii) potassium permanganate

2) a) Give the normal values and physiological importance of phosphate and calcium ions in human body. (10)
b) Give the method of preparation, principle involved in the assay and uses of sodium chloride.

III Short Answers

Answer all the questions.

1) Give a method of preparation and principle involved in the assay and medicinal uses of ammonium chloride. (5)

2) Give the importance of combination therapy used in antacids. Name few antacid combination formulations along with their compositions. (5)

3) a) Classify antimicrobials based on their mechanism of action with examples. (5)
b) Give the principle involved in the assay of hydrogen peroxide.

4) Write a note on the following compounds in terms of their chemical nature, preparation and medicinal uses : (5)
a) Potash Alum b) Activated Charcoal

5) Give the preparation, principle involved in the assay and medicinal uses of copper sulphate. (5)

6) What are radiopharmaceuticals? Mention their therapeutic and diagnostic applications. (5)

7) How do you measure the radioactivity? Mention units for the measurement of radioactivity. (5)

-----End-----