Total No. of Questions: 6 *Total No. of Printed Pages:2*

Enrollment No.....

Faculty of Pharmacy

End Sem (Odd) Examination Dec-2019

PY3CO04 Pharmaceutical Inorganic Chemistry

Programme: B. Pharma. Branch/Specialisation: Pharmacy

Duration: 3 Hrs. **Maximum Marks: 75**

Note: All questions are compulsory. Internal choices, if any, are indicated. Answers of Q.1 (MCQs) should be written in full instead of only a, b, c or d.

Q.1	i.	Thioglycolic acid is react with _____ in presence of ammoniacal solution gives chelate.	**2**
	ii.	Sources of impurity is present in final product is due to _____.	**2**
	iii.	Most abundant electrolytes present in the extracellular fluid is _____.	**2**
	iv.	Write the names of ingredients generally contain in dental products.	**2**
	v.	Give examples of soap clay.	**2**
	vi.	Lugol's Solution is _____.	**2**
	vii.	Sodium thiosulphate is used as _____.	**2**
	viii.	Ferrous sulphate is used as _____.	**2**
	ix.	Which particle is emitted in alpha decay?	**2**
	x.	Isotopes of the same element have a different number of what atomic particles is known as _____.	**2**

Q.2		Attempt any two:	
	i	Define impurity? Give various sources of impurity with suitable examples.	**10**
	ii.	What are the major intra and extra-cellular electrolytes and their functions? Discuss the electrolytes used in replacement therapy.	**10**
	iii.	(a) Discuss the principle involved in limit test for iron and chloride.	**5**
		(b) Write a note on dental products.	**5**

P.T.O.

Q.3		Attempt any seven: Two questions from each section is compulsory.	
		Section - A	
	i.	What are antacids and acidifiers? Explain ammonium chloride in detail.	**5**
	ii.	Write a note on cathartics with examples.	**5**
	iii.	Classify antimicrobials on basis of their mechanism of action.	**5**
		Section - B	
	iv.	What are haematinics? Discuss ferrous gluconate in detail.	**5**
	v.	Write a note on poison and antidote with examples.	**5**
	vi.	Write a note on astringents.	**5**
		Section - C	
	vii.	What are radioisotopes explain with examples? Give properties of alpha, beta and gamma particles.	**5**
	viii.	Discuss measurements of radioactivity with Geiger Muller counter	**5**
	ix.	Give pharmaceutical applications of radioactive substances	**5**

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Marking Scheme
PY3CO04 Pharmaceutical Inorganic Chemistry

Q.1
i. Thioglycolic acid is react with iron in presence of ammoniacal solution gives chelate. **2**
ii. Sources of impurity is present in final product is due to raw material, reagent and intermediates. **2**
iii. Most abundant electrolytes present in the extracellular fluid is sodium. **2**
iv. Names of ingredients generally contain in dental products. **2**
v. Examples of soap clay. **2**
vi. Lugol's Solution is aqueous iodine solution. **2**
vii. Sodium thiosulphate is used as antidote. **2**
viii. Ferrous sulphate is used as haematinics. **2**
ix. Particle is emitted in alpha decay **2**
x. Isotopes of the same element have a different number of what atomic particles is known as neutrons. **2**

Q.2 Attempt any two:

i Definition of impurity 2 marks **10**
Sources of impurity with examples.
1 mark for each source (1 mark * 8) 8 marks

ii. Major intra and extra-cellular electrolytes names 2 marks **10**
Their functions 3 marks
Define replacement therapy 0.5 mark
Three electrolyte 1.5 mark for each (1.5 mark * 3) 4.5 marks

iii. (a) Principle involved in limit test for iron 1.5 marks **5**
Reaction 1 mark
Principle involved in limit test for chloride 1.5 marks
Reaction 1 mark
(b) Write a note on dental products. **5**
Structure of tooth 1 mark
Dentifrices 2 marks
Cleaning agent 1 mark
Polishing agent 1 mark

Q.3 Attempt any seven: Two questions from each section is compulsory.

Section - A

i. Definition of antacids 1 mark **5**
Definition of acidifiers 1 mark
Ammonium chloride
Molecular weight, formula and preparation 1 mark
Assay 1 mark
Uses 1 mark

ii. Definition of cathartics 1 mark **5**
Classification 1 mark
Compounds (Mg. Al and I combination) 3 marks
(any one of these compounds)

iii. Classification of antimicrobials 3 marks **5**
Mechanism of action 2 marks

Section - B

iv. Definition of haematinics 1 mark **5**
Ferrous gluconate
Molecular weight, formula and preparation 2 marks
Assay 1 mark
Any two uses 0.5 mark for each (0.5 mark * 2) 1 mark

v. Poison and antidote with examples. **5**
Definition 1 mark
Classification 1 mark
Compounds (Sodium thiosulphate and sodium nitrite)
1.5 marks for each (1.5 mark * 2) 3 marks

vi. Astringents. **5**
Definition 1 mark
Compounds Molecular weight, formula and preparation
(Potash alum and zinc sulphate)
2 marks for each (2 mark * 2) 4 marks

Section - C

vii. Definition of radioisotopes 1 mark **5**
Examples 1 mark
Properties of alpha, beta and gamma particles
1 mark for each (1 mark * 3) 3 marks

viii. Measurements of radioactivity with Geiger Muller counter **5**
Definition 1 mark
Diagram 2 marks
Working of counter 2 marks

ix. Pharmaceutical applications of radioactive substances **5**
1 mark for each application (1 mark * 5)

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