



AP-003-047101 Seat No. _____
BVOC (PHAR ANA) (Sem. I) (CBCS) Examination
March/April - 2016
BVPAQA-101 : Core Pharmaceutical
Inorganic Chemistry

Faculty Code : 003
Subject Code : 047101

Time : 3 Hours]

[Total Marks : 70

- Instructions :** (1) All questions are compulsory and carry equal marks.
(2) Draw diagram and/or scheme wherever necessary.

- 1 (a) Answer the following multiple choice questions : 10
- (1) According to I.P., sodium fluoride (NaF) is assayed by _____.
(a) Redox titration
(b) Complexometric titration
(c) Zeta potential titration
(d) Gas phase titration
- (2) Which of the following is not used as filler aid ?
(a) Kaolin
(b) Fuller's Earth
(c) Activated Charcoal
(d) Kieselguhr
- (3) Methyl paraben is added to pharmaceutical dosages as _____.
(a) Antioxidant
(b) Preservative
(c) Filler aid
(d) Adsorbent

- (4) Which of the following methods is not used for limit tests in pharmaceuticals ?
- (a) Tests in which there is no visible reaction
 - (b) Comparison Method
 - (c) Quantitative Analysis
 - (d) Qualitative Analysis
- (5) Which of the following is also known as Martindale ?
- (a) Indian Pharmacopoeia
 - (b) Extra Pharmacopoeia
 - (c) British Pharmacopoeia
 - (d) US Pharmacopoeia
- (6) Bisacodyl is an example of _____.
- (a) Bulk purgatives
 - (b) Saline cathartics
 - (c) Lubricants
 - (d) Stimulants
- (7) Potassium Chloride is assayed by _____.
- (a) Volhard's Method
 - (b) Mohr's Method
 - (c) Gravimetric Method
 - (d) Complexometric Method
- (8) Deficiency of iron in the body can cause _____.
- (a) Anaemia
 - (b) Night blindness
 - (c) Falling hair
 - (d) Osteoporosis
- (9) If 100 ml sample contains 5% of H_2O_2 solution, then its volume strength is _____.
- (a) 16460 ml of O_2
 - (b) 16 ml of O_2
 - (c) 164 ml of O_2
 - (d) 1646 ml of O_2

(10) Carbon dioxide is assayed by _____.

- (a) Gasometric method
- (b) Gravimetric method
- (c) Acid base titration
- (d) Complexometric titration

(b) Answer the following multiple choice questions : **20**

(1) The drugs which are able to bring about defecation are known as _____; while _____ act similarly but are mild in their nature of action.

- (a) Protectives; Adsorbents
- (b) Cathartics; Laxatives
- (c) Cathartics; Purgatives
- (d) Laxatives; Purgatives

(2) Generally, pH value of human blood is _____ and gastric juice is _____.

- (a) 1.5 to 3.5; 7.4 to 7.5
- (b) 7.4 to 7.5; 1.5 to 3.5
- (c) 4.5 to 8.0; 5.4 to 7.4
- (d) 5.4 to 6.5; 0.5 to 1.2

(3) Calcium carbonate is assayed by _____ method by using _____ indicator.

- (a) Complexometric titration, Murexide
- (b) Acid base titration, Phenolphthalein
- (c) Redox titration, Methyl red
- (d) Oxidation titration, Mordant Black.

(4) Sodium chloride is assayed by _____ method by using _____ indicator.

- (a) Complexometric titration, Murexide
- (b) Volumetric precipitation titration, Ferric alum
- (c) Redox titration, Methyl red
- (d) Oxidation titration, Mordant Black

(5) _____ is essential for Manufacture of breast milk in females and _____ is necessary for a healthy immune system.

- (a) Manganese, Zinc
- (b) Sulphur, Zinc
- (c) Sulphur, Manganese
- (d) Zinc, Manganese

(6) Match the Following :

Topical Agents	Example
(1) Caustics	(A) Waxes
(2) Astringents	(B) KOH
(3) Emollients	(C) Talc
(4) Demulcents	(D) Alum

- (a) (1)-(B), (2)-(D), (3)-(A), (4)-(C)
- (b) (1)-(D), (2)-(C), (3)-(B), (4)-(A)
- (c) (1)-(B), (2)-(A), (3)-(D), (4)-(C)
- (d) (1)-(A), (2)-(C), (3)-(B), (4)-(D)

(7) Ammonium carbonate is also known as _____ while precipitated chalk is also known as _____.

- (a) Epsom Salt, Sodium metaphosphate
- (b) Rock Salt, Stannous fluoride
- (c) Preston's Salt, Calcium carbonate
- (d) Nitrous Salt, Pumice powder

(8) Complete the reaction: $2\text{AgNO}_3 + \text{K}_2\text{CrO}_4 \rightarrow$

- (a) $\text{KNO}_3 + 2\text{AgCrO}_4$
- (b) $\text{KNO}_2 + \text{Ag}_2\text{Cr}_2\text{O}_7$
- (c) $\text{Ag}_2\text{CrO}_4 + 2\text{KNO}_3$
- (d) $\text{H}_2\text{CrO}_4 + \text{Ag} + \text{KNO}_3$

- (9) $\text{Na}_2\text{S}_2\text{O}_5$ is known as _____ and $\text{Na}_2\text{S}_2\text{O}_3 \cdot 5\text{H}_2\text{O}$ is known as _____.
- (a) Sodium Thiosulphate , Sodium Metabisulphate
 - (b) Sodium Metabisulphate, Sodium Thiosulphate
 - (c) Sodium Thiosulphate, Sodium Thiosulphate Pentahydrate
 - (d) Sodium Sulfoxide, Disodium Metabisulphate
- (10) The intracellular fluid does not contain _____ and Oral Rehydration Salts (ORS) does not contain _____.
- (a) Potassium, Sodium citrate
 - (b) Magnesium, Sodium bicarbonate
 - (c) Bicarbonate, Magnesium carbonate
 - (d) Phosphate, Potassium chloride

2 Answer any **four** out of the following **six** questions : **20**

- (1) Explain the term 'monographs' with details of its components.
- (2) Explain limit tests for iron and lead for pharmaceutical substances.
- (3) Give the requirements for an ideal antacid. Explain preparation, assay and use of Calcium carbonate.
- (4) Write a note on protectives.
- (5) Define following terms with illustration :
 - (i) Inhalants
 - (ii) Respiratory stimulants
 - (iii) Anaesthetics.
- (6) Discuss the physiological role of oxygen and describe its method of preparation, properties, storage conditions and uses.

3 Answer any **four** out of the following **six** questions : **20**

- (1) Discuss the role of buffers in pharmaceutical chemistry with suitable example.
 - (2) Describe preparation, properties and pharmaceutical applications of (i) H_2O_2 (H) KMnO_4
 - (3) Describe physiological significance of calcium, iron and iodine.
 - (4) What do you mean by Transition elements and give their pharmaceutical importance.
 - (5) Explain the term dentifrices. Discuss preparation, properties and pharmaceutical applications of any one dentifrice.
 - (6) Explain Pharmaceutical Preservatives with suitable examples.
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