

Question Paper

Exam Date & Time: 27-Nov-2023 (10:00 AM - 01:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

Pharmaceutical Inorganic Chemistry [PCH-BP104T]

Marks: 75

Duration: 180 mins.

I Multiple Choice Questions (MCQs)

Answer all the questions.

Section Duration: 30 mins

- 1) Electrolytes replacement therapy is needed when (1)
- [Diarrhoea](#)
[Prolonged fever and vomiting](#)
[Heavy loss of water](#)
[All the above](#)
- 2) The difference between unmeasured anion and unmeasured cation is known as (1)
- [Anionic gap](#)
[Cationic gap](#)
[Trace ionic gap](#)
[Extra electrolytes](#)
- 3) Major extracellular cation is (1)
- [Calcium](#)
[Potassium](#)
[Ammonium](#)
[Sodium](#)
- 4) ORS does not have (1)
- [Glucose](#)
[Sodium citrate](#)
[Sodium chloride](#)
[Sodium bicarbonate](#)
- 5) One of the following is used as dental cement (1)
- [Zinc chloride](#)
[Zinc oxide](#)
[Sodium chloride](#)
[Potassium chloride](#)
- 6) Astringents show which type of mechanism of action (1)
- [Styptic](#)
[Antiperspirant](#)
[Anti-irritant](#)
[All the above](#)
- 7) About 65% of Iron in human body is present in (1)

[Myoglobin](#)

[Enzyme](#)

[RBC](#)

[Ferritin](#)

8) Beta particle is (1)

[With zero mass](#)

[Negatively charged](#)

[Identical to electron](#)

[All the above](#)

9) Which of the following is most penetrating radiation (1)

[Alpha rays](#)

[Beta rays](#)

[Gama rays](#)

[Sound waves](#)

10) In the treatment of arthritis following radiopharmaceutical is used (1)

[Nitrogen-13](#)

[Samrium-153](#)

[Erbium-169](#)

[Strontium-89](#)

11) The first Indian Pharmacopoeia's publishing started in the year 1944 under the Chairmanship of (1)

[BR Chopra](#)

[TB Chopra](#)

[RN Chopra](#)

[B.N Ghosh](#)

12) One of the solvent below is of low toxicity (1)

[Cyclohexane](#)

[Acetic acid](#)

[Carbon tetrachloride](#)

[Acetonitrile](#)

13) In method A for limit test of heavy metals IP the pH of solutions is adjusted to (1)

[2-3](#)

[3-4](#)

[4-5](#)

[5-6](#)

14) The chemical formula of the substance which is filtered off in the limit tests for chloride and sulphate in potassium permanganate is (1)

[MnO](#)

[MnO₂](#)

[Mn₂O₃](#)

[Mn₂O₅](#)

15) Yellow colour stain formed in arsenic limit test is due to the formation of (1)

[Mercury arsenate](#)

[Mercury arsenide](#)

[Mercury arsenic acid](#)

- 16) [Mercury Arsenous acid](#) solution is isotonic with serum. (1)
- 17) The synonym of aqueous iodine is (1)
- 18) Hydrogen peroxide is used as (1)
- 19) Agents that act by increasing the osmotic load of gastro intestinal tract by absorbing large quantity of water and thereby stimulate peristalsis are called as (1)
- 20) An inorganic agent act by irritating gastric mucosa & then stimulate respiratory tract secretion. (1)

II Long Answers

Answer all the questions.

- 1) Explain the methods to measure the tonicity of a solution. Explain the different classes of buffers based on the basis of their uses. (6+4) (10)
- 2) Explain the terms antiseptics, disinfectants, and germicides. Explain the preparation and assay principle of boric acid and Iodine. (10) (10)

III Short Answers

Answer all the questions.

- 1) How do you prepare Potash alum? Write the mechanism of action and uses of Potash alum. (5)
- 2) Explain Gas filled tube counters as a device to measure radioactivity. (5)
- 3) Highlight the important properties of Alpha radiations. What are the uses of I-131? (5)
- 4) Write a note on preparation of activated charcoal. (5)
- 5) What modification is done in the limit test for chloride for potassium permanganate and sodium salicylate? Why? (5)
- 6) How do the impurities get incorporated into the pharmaceutical preparations during the (5)

manufacturing process? Explain

7) Give the method of preparation, physical property, assay and uses of Epson salt.

(5)

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