Dr. B.C. Roy College of Pharmacy and Allied Health Sciences

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2.5.1: Sample Internal Answer Sheet

DR. B. C. ROY COLLEGE OF PHARMACY AND ALLIED HEALTH SCIENCES

M. Pharm / B. Pharm. / D. Pharm. 1st Year 1st Semester / Part, 2024

CA / IA No. CA-III Date 18/01/24

Name Arijit Mondal Exam. Cell Sl. No. 1890592301 12

Paper Pharmaceutical Inorganic Chemistry Paper Code PT-103

Sl. No. IE/T/ 13451

18/01/24
Signature of Invigilator

FOR EVALUATION ONLY
(Marks Obtained) [Full Marks 25]

Question Number	1.	2.	3	4.	5.	6.	7.						Total Marks	Evaluator's Signature
Marks Obtained	4½	4	5	5	0	0	5						23½	Shrikant 20/1/24

[START ANSWERING FROM THE SPACE BELOW]

1) a) Cathartics: Cathartics are the drugs which are used to bring out defecation (emptying of the stomach) by increasing the osmotic load of the intestine by absorbing a large amount of water, thus stimulating peristalsis.

Example: Bentonite, Kaoline

b) Calcium Bentonite is called fuller's earth. It is a cathartics. (4½)

c) The molecular formula of Chlorinated lime is $CaOCl_2$.

d) Fluorine is an inorganic compound that prevents tooth decay or carries.

f)

Expectorants	Anti-tussive
• These are the drugs which are used to help in removal	• These are drugs which ~~are~~ suppresses the brain areas

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of sputum from the respiratory tract	referred to as cough reflex area, it reduces the urge to cough.
• ~~and~~ Mainly used for the treatment of wet cough.	• Mainly used in the treatment of ~~we~~ dry cough.
• It is a productive cough.	• It is a non-productive cough

2) Ideal characteristic of antacids:

1) It should be water insoluble.
2) It should have fine particle sizes.
3) It should not be easily absorbable.
4) It should not cause constipation.
5) It should not act as a laxative.
6) It should have rapid onset of action.
7) It should have long term impact.
8) It should also inhibit the pepsin.
9) It should be non-toxic.
10) It should be easily available.

3) Antimicrobials : • Antimicrobials are the chemicals & their preparations which are used to treat and prevent infections due to microbes.

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• They either kill or inhibit the growth of microorganism.

Classification:

a) Antiseptic:
• These are the antimicrobials which are mainly used in the living cell / surfaces.
• They either kill or inhibit the growth of microorganism.
• An ideal antiseptic should destroy bacteria, fungi, spores, viruses and any infective agents without causing harm to the tissue of the host.

Example: Hydrogen peroxides, ~~silver nitro~~

b) Disinfectant: • These are used in the non living surfaces.
• They either kill or inhibit the growth of microorganism
• They are mainly used in the hospital environment such as linen, utensil and also used in home clea

Example: Sulphur dioxide.

c) Germicides: These are the antimicrobials which kill ~~bacte~~ microorganism.
• They can be used in living & non living surfaces.
• They are classified in 3 categories:

Bacteriocide: Against Bacteria
Fungicide: Against Fungi
Virucide: Against Viruses

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d) Bacteriostatic : These are the antimicrobials which do not kill bacteria. They only prevent the growth of bacteria.
- They can be used in living & non living surfaces.

Example : Chloramphenical.

e) Sanitizers : These are the disinfectants which are used to maintain general public health standard.
- It is concerned with cleaning & washing away organic matter.

Example : Soap, alcohol.

6) Sterilization : It is the process in which microorganism are either kill or prevent their growth in presence of excess amount of heat.

4) Iodine preparation:

a) Aqueous iodine :

Synonym : Lugal's solution.

Preparation : 5% of w/v iodine & 10% w/v Potassium iodine is used.

Iodine ..... 50 gm
Potassium iodide ..... 100 gm
Purified water (v/v) 1000 ml

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b) weak iodine :

Synonym : Tincture of iodine

Preparation : 2% w/v of iodine & 2.5% w/v of potassium iodide.

Iodine 20gm
potassium iodide ..... 25gm.
Alcohol (~~w/v~~)(50%) 1000ml

c) strong iodine :

(4)

~~Synonym~~

Preparation : 2% w/v of iodine & 6% w/v of potassium iodide.

Iodine 20gm
potassium iodide 60gm
Alcohol (v/v)(50%) 1000ml

d) Povidone-iodine :

It is an aqueous solution of povidone ~~&~~-iodine. povidone-iodine is a complex ~~between~~ formed by the alteration of povidone & iodine. This complex has 10% of available iodine.

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Properties : • The complex occurs as yellowish-brown amorphous powder.
• It is soluble in water & alcohol.
• The solution is transparent in nature and it has reddish brown colour.

7) **Ammonium chloride** :

a) Physical properties :

• Colour : white crystaline powder
• Odour : odourless
• Taste : lime / bitter taste
• Solubility : soluble in water.

b) Chemical preparation :

It is prepared by the reaction of ammonia & hydrochloric acid.

$$NH_3 + HCl \rightleftharpoons NH_4Cl$$

(3)

c) Test for purity :

• Presence of ~~heavy~~ metals & non-metals are tested.
• Loss on drying.

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d) Identification ~~test~~ assay : Identification of Ammonium chloride is done by volhard's method or precipitation titration.

~~The~~ In this method excess amount of chlorine is determined.

$NH_4Cl + AgNO_3 \rightarrow AgCl + NH_4NO_3$
(white precipitate)

e) use :

i) It is used as saline diuretics.
ii) It is used as expectorant.
iii) It is used as Acidifiers.
iv) It is used as Fertilizers.
v) It is used as glue.

... processes the brown areas

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Evaluated answer script has been explained to me and it was found to be satisfactory / unsatisfactory.

Arijit Mondal
18/01/24
Signature of Student

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