

Subhash Kumar Code : 091103

B.Pharm. 1st Semester Exam., 2017

PHARMACEUTICAL CHEMISTRY—I

(Organic Chemistry)

Time : 3 hours

Full Marks : 70

Instructions :

- (i) The marks are indicated in the right-hand margin.
- (ii) There are **NINE** questions in this paper.
- (iii) Attempt **FIVE** questions in all.
- (iv) Question No. 1 is compulsory.

1. Answer as directed any seven of the following : 2×7=14

(a) Write the principle of the limit test for sulphates.

(b) Hard acids are electron acceptors with high positive charge relatively small sizes and unfilled valence shell orbitals.

(Write True/False)

(c) Define the terms achlorhydria and antacids with at least one example of each term.

(d) Define the terms cathartics and astringents with at least one example of each term.

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(e) Write the uses of Povidone iodine and BAL.

(f) The unit of radio activity is _____ and its symbol is _____.

(Fill in the blanks)

(g) Write the WHO recommended composition for the Oral Rehydration Salts (ORS) powders/solutions.

(h) Write at least one use of the following :

Ferrous sulphate, Sodium acetate, Sodium fluoride, Boric acid

(i) Which one of the following is antidote?

(i) Ammonium carbonate

(ii) Sodium nitrite

(iii) Antimony potassium tartrate

(iv) Sodium citrate

(j) Which one of the following is systemic antacid?

(i) Sodium bicarbonate

(ii) Calcium carbonate

(iii) Magnesium carbonate

(iv) Dihydroxyaluminium sodium carbonate

2. (a) Discuss in detail about the different sources of impurities in pharmaceuticals. 7

(b) Write a short note on buffers. 7

3. (a) What are radio pharmaceuticals? Write about the gas filled detectors which are commonly used for radiation detection and measurements. 2+7
- (b) Write the preparation and uses of barium sulphate. 5
4. (a) What are antacids? Classify the antacids with examples. 7
- (b) Write about the synonym, preparation and uses of sodium bicarbonate and aluminium hydroxide gel. 7
5. (a) Write the synonym, properties, uses and applications of stannous fluoride and dicalcium phosphate. 7
- (b) What are complexing and chelating agents? Discuss it in detail. 7
6. (a) Write about electrolytes used for replacement therapy in brief. 8
- (b) Explain the physiological ions with examples in detail. 6
7. Discuss the principle, apparatus and method of limit test for the arsenic in detail. 4+4+6

8. Write short notes on any two of the following : 7+7

- (a) Iron and haematinics
- (b) Mineral supplements
- (c) Excipients

9. Write short notes on any two of the following : 7+7

- (a) Acids and bases
- (b) Gases and vapours
- (c) Diluents
