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B.PHARM.

(1st YEAR, II SEM.) EXAMINATION

PHARMACEUTICAL CHEMISTRY - II

Time : 3 Hours] *[Max. Marks : 70*

Note: ***Attempt all question as per Instructions. Draw labeled diagram wherever required.***

1. Attempt *All* questions : **[1×14=14**

(i) Nitrous oxide is

(a) Analgesic (b) anaesthetic

(c) both (d) none of the above

(ii) Impurities in impurities in pharmaceutical preparation may be due to following sources:

(a) Raw material (b) Manufacturing process

(c) Chemical instability (d) All of the above

(iii) Povidone iodine is used as

(a) antiseptic (b) acidifying agent

(c) protective (d) antioxidant

(iv) the acid neutralizing capacity of an antacid plane at least

(a) 5 meq. Of HCl per dosage unit (b) 7 meq. Of HCl per dosage unit

(c) 8 meq. Of HCl per dosage unit (d) 10 meq. Of HCl per dosage unit

(v) Saline catharitcs should not be given to

(a) Patients with cardiovascular disorders (b) patient with history of convulsions

(c) patients with low sodium diet (d) patient with muscular disorders.

(vi) In physiological acid-base imbalance K excretion will be decreased

(a) the amount ot Na reaching distal tubule is low
(b) the proton secretion by kidney tubule is increased
(c) both a and b
(d) none of the above

(vii) In metabolic acidosis
(a) HCO_3 excess
(b) CO_2 decreased
(c) HCO_3 deficit
(d) all of the above

(viii) Calcium lactate is used for
(a) pharmaceutical aid
(b) toxicity agents
(c) fluid and electrolyte replenisher
(d) all of the above

(ix) Which element is biochemically associated with certain metalloenzymes.
(a) Cu
(b) Zn
(c) Fe
(d) Cr

(x) _____ is needed for the healthy immune system
(a) Cu
(b) Zn
(c) Fe
(d) Cr

(xi) 1 Roentgen is equivalent to
(a) $2.58 \times 10_{-5}$ CKg_{-1}
(b) $2.58 \times 10_{-3}$ CKg_{-1}
(c) $2.58 \times 10_{-8}$ CKg_{-1}
(d) $2.58 \times 10_{-4}$ CKg_{-1}

(xii) Which of the following is not a type of gas filled detector ?
(a) Proportional counter
(b) G.M counter
(c) Semiconductor detector
(d) Ionization chamber

(xiii) Which statement is correct regarding the handling and storage of radioactive materials?
(a) Radioactive materials never be touched with hand
(b) Sufficient protective clothing must be used while handling the materials
(c) Kept in suitable container
(d) all of the above

(xiv) Chemical formulae of calcium levulinate is
(a) $(CH_2COCH_2COO.)_2Ca^{2+}\,4H_2O$
(b) $(CH_2COCH_2COO.)_2Ca^{2+}\,2H_2O$
(c) $(CH_2COCH_2COO.)_2Ca^{2+}\,3H_2O$
(d) $(CH_2COCH_2COO.)_2Ca^{2+}\,H_2O$

2. Give method of preparation, identification test and uses of the following: (any four) **[3.5×4=14**

(i) Calamine
(ii) Bismuth subcarbonate
(iii) Ferrous sulphate
(iv) Kaolin
(v) Oxygen

3. Attempt any *Two* of the following. **[7×2=14**

(i) Discuss mechanism of actions of anti-infective. Explain the terms purified water, water for injection and sterile water for injection.
(ii) What is the need and advantages of combination antacids? Write down the differences between light and heavy magnesium oxide.
(iii) Write down the test for pharmaceutical glasses. Discuss the limit test for chloride.

4. Attempt any *Two* of the following. **[7×2=14**

(i) name the electrolytes used for physiological acid base balance. What do you mean by major and minor physiolocal ions. What are the uses of calcium and potassium chloride.
(ii) What are poison antidotes? Enlist the postulates of Werner theory of co-ordination compounds. What is the biological role of sulphur in human body?
(iii) What are the possible hazards of radiopharmaceuticals? What precautions are required during handling and storage of radiopharmaceuticals?

5. **Attempt any *One*.** [14×1=14

(i) Write notes on :

(a) Units of radioactivity

(b) Clinical uses of radiopharmaceuticals

(c) Combination therapy

(d) Cationic components of inorganic drugs fur systemic effects

(ii) Write method of preparation, identification test and uses of the following:

(a) Sodium thiosulphate

(b) Calcium gluconate

(c) Sodium metabisulfite

(d) Boric acid