

Code No. R/S 21045



26/11/24

[Time : 3 hours

(Maximum marks : 80)

- [Note :- 1. Answer any *eight* questions  
2. All questions carry equal marks.  
3. Draw diagram wherever necessary]

Marks

1. (a) Name the following :
  - (i) Largest component of hip bone
  - (ii) The photo pigment present in rods
  - (iii) The master endocrine gland of human body
  - (iv) Salivary enzyme initiating the breakdown of starch
  - (v) The powerhouse of a cell
- (b) With the help of a neat labelled diagram, describe the parts of urinary system. (5+5=10)
2. (a) Name any 5 organelles of animal cell and write one function of each.
- (b) Enumerate the bones of vertebral column. Write on first and second vertebrae. (5+5=10)
3. (a) What is CSF ? Explain its formation and functions.
- (b) Describe adrenal glands. Name the hormones secreted by it and their functions. (5+5=10)
4. (a) Describe anatomy of digestive system.
- (b) Write on the disorders of thyroid gland. (5+5=10)
5. (a) Name the parts of the brain. Enumerate the functions of cerebrum.
- (b) Compare and contrast sympathetic and parasympathetic nervous system. (5+5=10)
6. (a) Name the parts of male reproductive system and explain the process of spermatogenesis.
- (b) Classify the different types of WBC. Mention the functions of each type (5+5=10)
7. (a) Describe the structure of human heart. Write on the functions of heart valves.
- (b) What are the functions of liver ? (5+5=10)

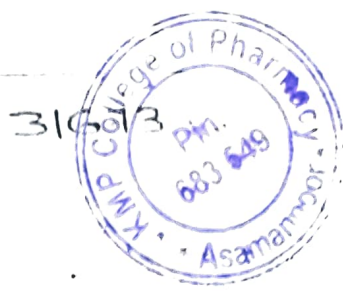
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2

Marks

8. (a) With a neat labelled diagram, describe the parts of respiratory system.
- (b) Explain the process of muscle contraction. (5+5=10)
9. (a) Describe the anatomy of human ear. Write the functions of various parts.
- (b) Classify joints with examples. (5+5=10)
10. Write notes on :
- (a) Cardiovascular disorders
- (b) Reflex arc and reflex action (5+5=10)
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26/10/22

Code No. R/S 21044

[Time : 3 hours]

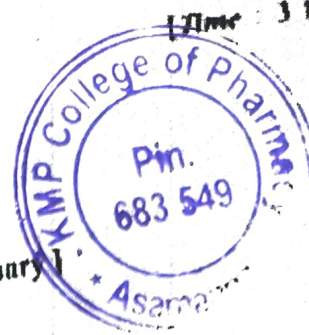
(Maximum marks : 80)

- [Note :- 1. Answer any eight questions.  
2. All questions carry equal marks.  
3. Write equations wherever necessary.]

	Marks
1. (a) Define and Classify carbohydrates. Explain the different chemical tests for carbohydrates.	
(b) Write a note on polysaccharides.	(5+5=10)
2. (a) Explain the factors affecting the rate of an enzyme catalyzed reaction.	
(b) Explain the different types of enzyme inhibition.	(5+5=10)
3. Write short notes on :	
(a) Protein deficiency diseases	
(b) Structure of proteins	(5+5=10)
4. (a) Describe the reactions of glycolysis	
(b) Explain Glycogen storage diseases	(5+5=10)
5. (a) Write notes on :	
(i) Significance of polyunsaturated fatty acid (ii) Phospholipids	
(b) Classify Vitamins. Explain the biochemical role of Vitamin A.	(5+5=10)
6. (a) Explain beta oxidation of fatty acid.	
(b) List the abnormal constituents of urine and explain the significance of their detection.	(5+5=10)
7. (a) Explain the reactions of Citric acid cycle.	
(b) What is Anaemia ? Explain the different types.	(5+5=10)
8. Write short notes on :	
(a) Abnormal erythrocytes and their significance	
(b) Atherosclerosis and fatty liver	(5+5=10)
9. (a) Explain the following chemical tests	
(i) Rothera's test (ii) Seliwanos test	
(iii) Gmelins test (iv) Salkowski test	
(b) Explain the role of lymphocytes in our body.	(5+5=10)
10. (a) Explain the biochemical functions of sodium and potassium ions in our body.	
(b) What are the inborn errors of amino acid metabolism ?	(5+5=10)

(Maximum marks : 80)

- [Note :— 1. Answer any eight questions.  
2. All questions carry equal marks.  
3. Draw diagrams wherever necessary.]



Marks

1. (a) Define and classify solid dosage forms? Write briefly on effervescent granules. (5 + 5 = 10)  
(b) Write the properties of an ideal ointment base.
2. (a) Define the term "Pharmacopoeia". Name the various pharmacopoeias commonly used in India.  
(b) Write the metric conversions of :  
(i) one pound                      (ii) one grain                      (iii) one ounce  
(iv) one fluid drachm              (v) one pint (5 + 5 = 10)
3. Write on :  
(a) Advantages and disadvantages of plastic containers. (5 + 5 = 10)  
(b) Aerosol packaging
4. (a) Define "Size Reduction". Explain the principle, construction, working and uses of a disintegrator.  
(b) What are the different methods used for size separation? Write the advantages of elutriation method. (5 + 5 = 10)
5. (a) Define the terms "Mixing" and "Homogenisation". Write the principle of homogenisation. Explain hand homogeniser.  
(b) Name the various filtering devices used in a pharmaceutical industry. Write the qualities of an ideal filter aid. (5 + 5 = 10)
6. (a) Define the term "Extraction". Explain simple maceration process for extraction.  
(b) Name the common ayurvedic dosage forms. Explain 'kshirpaka' and 'churna'. (5 + 5 = 10)
7. (a) Write in detail about various factors which affect the rate of evaporation of a liquid.  
(b) Name different types of distillation processes. Write in detail about simple distillation process. (5 + 5 = 10)

8. (a) Classify the different methods of sterilisation. Describe dry heat method of sterilisation. (5 + 5 = 10)
- (b) Write the advantages and disadvantages of vacuum dryers.
9. (a). Explain the various types of excipients which are generally required in the formulation of tablets. (5 + 5 = 10)
- (b) Classify Immunological products with suitable examples. Give the storage conditions of Immunological products.
10. (a) Explain the construction and working of a hand operated hard gelatin capsule filling machine. (5 + 5 = 10)
- (b) Write the method of preparation, uses and storage of any one vaccine.



51674  
26/12/2021

Time : 3 hours

(Maximum marks 80)

[Note :—1. Answer any eight questions.  
2. All questions carry equal marks.]

Marks

1. (a) Define Health. Explain the indicators of health. (5+5=10)  
(b) Explain the levels of prevention of diseases.
2. (a) Define family planning, explain the hormonal contraceptive method of family planning. (5+5=10)  
(b) Enumerate essential amino acids and their role.
3. (a) Write on fat-soluble vitamins and their deficiency diseases. (5+5=10)  
(b) What are the various sources of water pollution ?
4. (a) Define epidemiology. Explain the dynamics of disease transmission. (5+5=10)  
(b) Describe cause, prevention and control of coronary artery disease.
5. (a) Explain disinfection procedure for dead-bodies. (5+5=10)  
(b) Write on the agents causing food poisoning, its prevention and control.
6. (a) Describe the various arthropod borne diseases and their control. (5+5=10)  
(b) Write the causative agent, mode of transmission and prevention of malaria.
7. Write the causative agent, mode of transmission and prevention of (5+5=10)  
(a) Typhoid *Salmonella* (b) AIDS
8. (a) Explain the methods of water purification. (5+5=10)  
(b) What are the first aid measures for the management of snake bite.
9. Write notes on : (5+5=10)  
(a) Water soluble vitamins  
(b) Cardiac pulmonary resuscitation
10. (a) Define Immunity, Classify the various types of immunity. (5+5=10)  
(b) Write short notes on Grams staining.

Code No. R/S 21042



31674

[Time : 3 hours

(Maximum marks : 80)

- [Note :—1. Answer any *eight* questions.  
2. All questions carry equal marks.  
3. Draw diagrams and write equations wherever necessary.]

Marks

1. (a) What are Antacids ? Give the name and chemical formula of any four.  
(b) Write the principle and procedure involved in the assay of Boric acid. (5 + 5 = 10)
2. (a) Write the chemical formula of :  
(i) Bleaching powder (ii) Borax (iii) Kaolin  
(iv) Strontium chloride (v) Magnesium sulphate  
(b) What are Inhalants ? Write the storage and uses of any two. (5 + 5 = 10)
3. (a) Explain any five sources of impurities in pharmaceuticals.  
(b) What is the importance of Quality control of drugs and pharmaceuticals ? (5 + 5 = 10)
4. (a) Explain the principle and procedure involved in the limit test for chloride.  
(b) Write the reactions taking place in the limit test for arsenic. (5 + 5 = 10)
5. (a) Define Antioxidants. Add a note on Sulphur dioxide.  
(b) Explain the composition and use of ORS. (5 + 5 = 10)
6. (a) Define with two examples each  
(i) Expectorants (ii) Astringents  
(b) Explain the theories of acids and bases. (5 + 5 = 10)
7. (a) Write the physical properties, storage and uses of any two Iron compounds.  
(b) Write a note on anticaries agents. (5 + 5 = 10)

8. (a) Write the chemical formula and two uses each of :

- (i) Dicalcium phosphate  $\text{Ca}_2\text{P}_2\text{O}_7$  (ii) Silver nitrate

(b) Give the storage conditions and uses of :

- (i) Hydrogen peroxide (ii) Sodium thiosulphate (5 + 5 = 10)

9. (a) Write one example each for :

- (i) Emetic (ii) Antimicrobial (iii) Protective  
(iv) Adsorbent (v) Respiratory stimulant

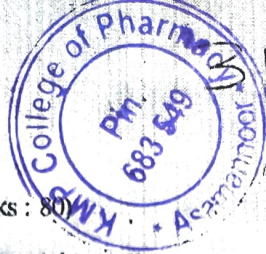
(b) Write a note on :

- (i) Yellow mercuric oxide (ii) Iodine (5 + 5 = 10)

10. (a) Explain the precautions to be taken in storage and handling of radioactive materials.

(b) With a neat diagram, explain the working of Geiger Muller counter. (5 + 5 = 10)





1674  
Time: 3 hours

(Maximum marks : 80)

- [Note :—1. Answer any eight questions.  
2. All questions carry equal marks.  
3. Draw diagram wherever necessary.]

Marks

1. (a) What are alkaloids ? Classify giving examples.  
(b) Give the biological source, chemical constituents and uses of two anthraquinone glycoside containing drugs. (5+5=10)
2. (a) Write the chemical tests for Agar and Cinchona.  
(b) Differentiate Pale catechu and Black catechu. (5+5=10)
3. (a) Describe : (i) Bontragers test (ii) Keller killiani test  
(b) Give the preparation and tests for identification of raw cotton. (5+5=10)
4. Write notes on :  
(a) Umbelliferous fruits  
(b) Life cycle of Ergot (5+5=10)
5. (a) Write source, chemical constituents and use of digitalis.  
(b) Write notes on evaluation of crude drugs. (5+5=10)
6. (a) Describe the morphology and use of clove.  
(b) Write the source and uses of beeswax and gelatin. (5+5=10)
7. Write on :  
(a) Tannins and fixed oils  
(b) Antihypertensive drugs (5+5=10)
8. Write on :  
(a) Enzymes  
(b) Sources of drug adulteration (5+5=10)
9. (a) What are the constituents and uses of Chalmooogra oil and Shark liver oil ?  
(b) Describe the microscopy of Senna. (5+5=10)
10. Write on :  
(a) Belladonna alkaloids  
(b) Morphology, constituents and use of Nutmeg (5+5=10)