

**FACULTY OF PHARMACY**

**B. Pharmacy I - Semester (CBCS) (Backlog) Examination, October 2020**

**Subject: Basic Computer Applications - I**

**Time: 2 Hours**

**Max. Marks: 70**

**Note: Answer any four questions.**

**(4x17½=70 Marks)**

1. (a) What is a computer. Explain various input and output devices of a computer?  
(b) Write short notes on types of memory.
2. (a) Define Operating Systems. Explain functions of Operating Systems.  
(b) Write about different types of printers.
3. (a) Write the important features of MS WORD.  
(b) Explain lists and tables in MS WORD.
4. (a) Write the features of MS Excel.  
(b) Explain about charts and graphs in Excel.
5. Write short notes on views, transitions and animations in MS Power Point.
6. (a) Write about importing, exporting and linking in MS ACCESS.  
(b) Write short notes on Data Base concepts.
7. (a) Write about pharmaceutical resources in WWW.  
(b) Write types of indexing tools and search strategies.
8. Write short notes on  
(i) E-Mail (ii) Structure and organization of WWW (iii) Information search in WWW.
9. What is HTML? Explain about Frames and Forms, Text formatting, Hyperlinks in HTML.
10. Write short notes on  
(i) HTML heading tags.  
(ii) Images.  
(iii) Lists.  
(iv) Tables.

\*\*\*\*\*

**FACULTY OF PHARMACY****B. Pharmacy I-Semester (CBCS) (Backlog) Examination, October 2020****Subject: General Pharmacy****Time: 2 Hours****Max. Marks: 70****Note: Answer any four questions.****(4x17½=70 Marks)**

1. (a) Give a brief note on development of pharmaceutical industry in India.  
(b) Write a brief note on Martindale and Merck Index.
2. (a) Give brief explanation to USP and IP.  
(b) Explain each term of a pharmacopoeial monograph contents of an API.
3. (a) Give a brief note on minimum weighable amounts and calibration of weights.  
(b) Define Normality, Molarity and Molality.  
(c) How much quantity of 95% alcohol will be required to prepare 500ml of 35% alcohol?
4. (a) Define isotonicity and explain methods for adjustingtonicity.  
(b) How do you prepare 1000 ml of 4%w/v sodium chloride solution?  
(c) Inter convert 30°UP and 45°OP into %V/V alcohol.
5. (a) What are the factors influencing in calculating the dose of a drug.  
(b) Write the formulas for calculating the dose for infant and children based on age, surface area and body weight.  
(c) Mention about modern methods of prescribing of medicine.
6. (a) Define prescription. Explain parts of prescription.  
(b) Explain sources of errors and care required in handling prescription.
7. (a) What are the different materials used in the preparation of containers and closures. Explain in detail about any one material.  
(b) Write a note on child resistant containers.
8. (a) Define container and closure system. Mention Ideal properties and types of containers and closures.  
(b) Explain cautionary and advisory labels for various formulations.  
(c) Explain blister and strip packaging of formulations.
9. (a) Discuss in detail about various antioxidants and preservatives used in formulations.  
(b) Explain safety measures and precautions to be taken while handling medical gases.
10. (a) Give a note on (i) Surfactants (ii) Hydrocolloids.  
(b) Explain the preparatory methods and uses of any two radio pharmaceuticals.

\*\*\*\*\*

**FACULTY OF PHARMACY**

**B. Pharmacy I-Semester (CBCS) (Backlog) Examination, October 2020**

**Subject: Human Anatomy and Physiology - I**

**Time: 2 Hours**

**Max. Marks: 70**

**Note: Answer any four questions.**

**(4x17½=70 Marks)**

1. (a) Explain in detail about the structure and functions of plasma membrane with a neat labeled diagram.  
(b) Describe the structure and functions of muscle tissues.
2. Define tissue and explain in detail about connective tissues.
3. (a) Discuss the various types of movements of joints.  
(b) Explain the structure and functions of femur with diagram.
4. What is a Joint? Explain different types of synovial joints with examples.
5. (a) Explain the composition and functions of blood.  
(b) Write short note on blood grouping.
6. (a) Explain the structure and functions of spleen with a neat labeled diagram.  
(b) What are the different types of lymph trunks and ducts involved in draining of lymph?
7. (a) Define Blood pressure and its regulation.  
(b) Write a note on Cardiac cycle.
8. (a) Explain Anatomy of heart and blood vessels.  
(b) Write short note on portal circulation.
9. (a) Explain the structure of eye with a neat labeled diagram.  
(b) Write about different types of taste buds.
10. Write in detail about the structure and functions of skin.

\*\*\*\*\*

## FACULTY OF PHARMACY

### B. Pharmacy I - Semester (CBCS) (Backlog) Examination, October 2020

#### Subject: Mathematics

**Time: 2 Hours**

**Max. Marks: 70**  
**(4x17½=70 Marks)**

**Note: Answer any four questions.**

1. (a) Find the value of  $x$  satisfy in  $\log_{10}(2^x + x - 41) = X(1 - \log_{10}5)$

(b) If  $\tan(A - B) = \frac{7}{24}$  and  $\tan A = \frac{4}{3}$ . Show that  $A + B = \frac{\pi}{2}$ .

2. (a) If  $a^{3-x} \cdot b^{5x} = a^{x+5} \cdot b^{3x}$ , show that  $x \log(b/a) = \log a$ .

(b) If  $\tan \theta = \frac{a}{b}$  and  $\theta$  is acute, show that  $\frac{a \sin \theta - b \cos \theta}{a \sin \theta + b \cos \theta} = \frac{a^2 - b^2}{a^2 + b^2}$ .

3. (a) Use the first principles to find the  $\cot x$  derivative.

(b) Find maxima and minima of function  $f(x) = x^3 - 6x^2 + 9x + 15$ .

4. (a) If  $4 = \tan^{-1} \left( \frac{x^3 + y^3}{x - y} \right)$  Then show that  $x \frac{\partial 4}{\partial x} + y \frac{\partial 4}{\partial y} = \sin 24$ .

(b) If  $z = 3x \cdot e^{y^2} + 4y$  then find  $\frac{\partial z}{\partial x} \frac{\partial z}{\partial y}$ .

5. (a) Evaluate  $\int \frac{\cos x}{2 + 3 \sin x} dx$ .

(b) Evaluate  $\int x^2 \sin x dx$ .

6. (a) Evaluate  $\int e^x \cos^2 x dx$ .

(b) Find the area bounded by curves  $y = \sqrt{x}, y = x^2$ .

7. (a) Show that  $\begin{vmatrix} a & b & c \\ a^2 & b^2 & c^2 \\ a^3 & b^3 & c^3 \end{vmatrix} = (abc)(a-b)(b-c)(c-a)$ .

(b) Solve the system of equation in matrix Inverse method.

$$\begin{aligned} x - y + z &= 4 \\ 2x + y - 3z &= 0 \\ x + y + z &= 2 \end{aligned}$$

8. (a) Find the value of  $x$  if  $\begin{vmatrix} 15-x & 11 & 10 \\ 11-3x & 17 & 16 \\ 7-x & 14 & 13 \end{vmatrix} = 0$ .

(b) Show that the matrix  $A = \begin{bmatrix} 1 & 1 & 1 \\ 1 & 2 & -3 \\ 2 & -1 & 3 \end{bmatrix}$  satisfies the matrix equation

$$A^3 - 6A^2 + 5A + 11I = 0.$$

9. Define the degree and order and

Solve  $(e^x + 1)y dy = (y + 1)e^x dx$ .

10. Explain Linear and non-Linear graphs with examples.

**FACULTY OF PHARMACY**

**B. Pharmacy I-Semester (CBCS) (Backlog) Examination, October 2020**

**Subject: Biology**

**Time: 2 Hours**

**Max. Marks: 70**

**Note: Answer any four questions.**

**(4x17½=70 Marks)**

1. (a) Write a note on structure of plant cell with neat labeled diagram.  
(b) Write a note on parenchyma cells with their functions.
2. (a) Write a note on morphology and functions of stem.  
(b) Explain the T.S. of bark with neat labeled diagram.
3. (a) Explain in detail morphology of flower.  
(b) Discuss in detail morphology of leaf.
4. (a) Explain the internal structure of dicot leaf.  
(b) Write about root modification and their significance.
5. (a) Describe vegetative and floral characteristics of apocynaceae family.  
(b) Discuss the taxonomy of Umbellifera family.
6. Describe vegetative, floral and taxonomical characteristics of solanaceae family.
7. (a) Describe histology of rabbit liver.  
(b) Write about histology of rabbit skeletal muscle.
8. (a) Write a descriptive note on mitosis.  
(b) Write about histology of rabbit pancreases.
9. Describe the life history and disease caused by Entamoeba histolytica.
10. (a) Describe the role of mosquitoes as vector for spreading the diseases.  
(b) Describe the life history and disease caused by tapeworm.

\*\*\*\*\*

# ST PAULS COLLEGE OF PHARMACY



## FACULTY OF PHARMACY

**B. Pharmacy I – Semester (CBCS) (Backlog) Examination, December 2019 Subject:  
Pharmaceutical Inorganic Chemistry**

Time: 3 Hours

Max. Marks: 70

**Note: Answer all questions. All questions carry equal marks.**

1. a) List out various sources of impurities in Pharmaceutical substances. Explain any two of them with examples. 3+6
  - b) Explain the principle and procedure involved in the limit test for sulphates. 5
- OR**
- c) Describe the principle and procedure involved in the limit test for arsenic with a neat labeled diagram. 8
  - d) Explain the principle and procedure involved in the limit test for iron. 6
2. a) Explain the role of electrolytes in body fluids. 8
  - b) Define 'antacids' and 'laxatives'. Give the preparation, properties and tests for purity of (i) Calcium gluconate (ii) Magnesium sulphate 6
- OR**
- c) Give the composition, mode of supply and uses of haemo dialysis fluid. 3
  - d) Write the preparation, properties and uses of following:
    - i) Ammonium Chloride. 3
    - ii) Sodium Chloride 4
    - iii) Aluminum hydroxide gel 4
3. a) Define 'Haematinics'. Give the preparation, tests for purity and uses of ferric ammonium citrate and ferrous gluconate. 1+8
  - b) Write a note on silica gel. 5
- OR**
- d) Write the preparation, properties, assay and uses of
    - (i) Ferrous sulphate (ii) Magnesium stearate 2x5=10
4. a) Define 'astringents'. Explain the preparation, Tests for purity and properties of zinc sulphate. 1+4
  - b) Write the preparation, properties and uses of following: 3x3=9
    - (i) Silver nitrate (ii) Copper sulphate (iii) Sodium nitrate
- OR**
- c) What are anti-infective agents? Write the preparation, assay and uses of following: 1+8
    - (i) Boric acid (ii) Potassium Permanganate
  - d) What are expectorants? Give the preparation, properties and assay of potassium iodide. 5
5. a) What are surgical aids? Write a note on plaster of paris? 5
  - b) What are cements and fillers? Write the preparation and properties of zinc oxide? 5
  - c) Write a note on anti thyroid agents. 4
- OR**
- d) Explain the preparation, properties and uses of following: 3x3 = 9
    - i) Barium Sulphate ii) Calcium Carbonate
    - iii) Hydrogen Peroxide
  - e) Write the significance of fluorides in dental products. 5



## FACULTY OF PHARMACY

B. Pharmacy I – Semester (CBCS) (Backlog) Examination, January 2020

Subject: Mathematics

Time: 3 Hours

Max. Marks: 70

Note: Answer all questions. All questions carry equal marks.

1.a) If  $\log(x^2 y^3) = a$  and  $\log \frac{x}{y} = b$  find  $\log x$  and  $\log y$

b) Find the value of  $\sin 22 \frac{1}{2}^\circ$  and  $\cos 22 \frac{1}{2}^\circ$

OR

c) Find the value of  $x \log_5 x + \log_5 x = \frac{5}{2}$

d) If  $\cot \theta = \frac{5}{2}$  and  $\theta$  is acute show that  $\frac{5 \cos \theta + 2 \sin \theta}{5 \cos \theta - 2 \sin \theta} = \frac{29}{21}$

2. a) Use the first principles to find the  $\sin x$  derivative.

b) Find the Maximum and Minima of the function  $f(x) = 2x^3 - 15x^2 + 36x + 10$

OR

c) If  $u = \sin^{-1} \frac{x}{y} + \tan^{-1} \frac{y}{x}$  show that  $x \frac{\partial u}{\partial x} + y \frac{\partial u}{\partial y} = 0$

d) If  $z = x^2 + 3xy + y^2 - 2$  find  $\frac{\partial z}{\partial x}$  and  $\frac{\partial z}{\partial y}$

3. a) Evaluate  $\int \frac{x^2 - 1}{x^2 + 1} dx$

b) Evaluate  $\int \cos^3 x \sin^4 x dx$

OR

c) Evaluate  $\int \tan^{-1} x dx$

d) Find the area enclosed between the curves  $y = 8 - x^2$  and  $y = x^2$

4. a) Show that  $\begin{vmatrix} 1 & 1 & 1 \\ a & b & c \\ a^2 & b^2 & c^2 \end{vmatrix} = (a-b)(b-c)(c-a)$

b) Solve the system of equations

$$x_1 + x_2 - x_3 + x_4 = 2, x_1 + x_2 - x_3 + x_4 = -4, x_1 + x_2 + x_3 + x_4 = 0$$

OR

c) Find the value of  $x$  if  $\begin{vmatrix} 1 & -2 & x+3 \\ 1 & x-2 & 3 \\ x+1 & -2 & 3 \end{vmatrix} = 0$

d) If  $A = \begin{bmatrix} 3 & 1 \\ -1 & 2 \end{bmatrix}$  show that  $A^2 - 5A + 7I = 0$

5. a) Write about Linear and non-linear graphs and explain.

OR

b) Explain the equation of line  $y = mx + c$  and its importance in programming.

\*\*\*\*\*

**FACULTY OF PHARMACY**

**B. Pharmacy I – Semester (CBCS) (Backlog) Examination, January 2020**

**Subject: Biology**

**Time: 3 Hours**

**Max. Marks: 70**

**Note: Answer all questions. All questions carry equal marks.**

- 1 a) (i) Give the brief classification of plant kingdom.  
(ii) Discuss in detail mitosis
- OR**
- b) (i) Discuss the structure and function of xylem and phloem cells.  
(ii) Describe in detail about underground stem modification.
2. a) Describe in detail morphology and histology of fruit.
- OR**
- b) (i) Discuss the morphology of leaf.  
(ii) Describe in detail about root modification.
3. a) (i) Write a floral characteristics of solanaceae family.  
(ii) Give economical importance of Umbelliferae family.
- OR**
- b) (i) Explain the floral characteristics of scrophulariaceae family.  
(ii) Describe taxonomy of leguminoceace family.
4. a) (i) Differentiate between plant and animal cell.  
(ii) Write a note on histology of rabbit liver.
- b) (i) What are the hormones secreted by pituitary glands? Give their clinical significance?  
(ii) Describe structure and function of smooth muscle.
5. a) (i) Give the external morphology of tapeworm.  
(ii) Discuss the life history of housefly.
- b) Describe the life cycle of Plasmodium vivax.

\*\*\*\*\*

## FACULTY OF PHARMACY

### B. Pharmacy I – Semester (CBCS) (Backlog) Examination, January 2020 Subject: Human Anatomy and Physiology – I

Time: 3 Hours

Max. Marks: 70

**Note: Answer all questions. All questions carry equal marks.**

- |    |  |    |
|----|--|----|
| 1  | a) Explain in detail about the structure and functions of plasma membrane with a neat labeled diagram. | 7  |
|    | b) Describe the structure and functions of nervous tissue.   | 7  |
|    | <b>OR</b>  |    |
|    | c) Describe tissue and explain in detail about epithelial tissues.                                     | 10 |
|    | d) Explain different types of body cavities.   | 4  |
| 2. | a) What is a Joint? Explain different types of synovial joints with examples.                          | 10 |
|    | b) Explain the structure and functions of scapula with diagram.  | 4  |
|    | <b>OR</b>  |    |
|    | c) Discuss various types of movements of joints.   | 9  |
|    | d) Write short notes on neuromuscular junction.  | 5  |
| 3. | a) Define homeostasis and explain in detail about homeostasis.   | 9  |
|    | b) Write about structure and functions of white blood cells.   | 5  |
|    | <b>OR</b>  |    |
|    | c) Explain the structure and functions of thymus gland with a neat labeled diagram.                    | 8  |
|    | d) What are different types of lymph trunks and ducts involved in draining of lymph?                   | 6  |
| 4. | a) Define and explain the events of cardiac cycle.   | 10 |
|    | b) Explain about the hepatic circulation of blood.   | 4  |
|    | <b>OR</b>  |    |
|    | c) What is meant by blood pressure and write about the factors affecting blood pressure?               | 8  |
|    | d) Define and explain in details about ECG.  | 6  |
| 5. | a) Explain the structure of ear with a neat labeled diagram.   | 9  |
|    | b) Write short notes on anatomy of taste buds.   | 5  |
|    | <b>OR</b>  |    |
|    | c) Write in detail about the structure and functions of skin.  | 8  |
|    | d) Explain the physiology of olfaction.  | 6  |

\*\*\*\*\*

## FACULTY OF PHARMACY

## B. Pharmacy I – Semester (CBCS) (Backlog) Examination, January

## 2020 Subject: General Pharmacy

Time: 3 Hours

Max. Marks: 70

**Note: Answer all questions. All questions carry equal marks.**

1. a) Write a note on affiliating bodies for pharmaceutical education in India. 7  
 b) Explain Indian Pharmacopoeia and Merck Index 7  
**OR**  
 c) Describe each term of monograph by providing an example of drug. 10  
 d) Discuss about the development of Pharmaceutical education in India. 4
2. a) Explain in detail about the selection and care of weights and balances. 5  
 b) Convert 80° OP and 40° UP to percentage V/V alcohol. 4  
 c) What are isotonic solutions and explain the methods of adjusting tonicity? 5  
**OR**  
 d) Define Normality, Molarity, Molality and isotonic solution. 5  
 e) Write a short note on minimum weighable amounts and calibration of weights. 5  
 f) How much quantity of 90% alcohol will be required to prepare 700 ml of 20% alcohol. 4
3. a) Define prescription. Explain modern methods of prescribing medicines and discuss about the care required in handling prescriptions. 7  
 b) Calculate the dose for  
 i) 8 Months old infant      ii) 6 years child      iii) Boy of 13 years  
 Adult dose of the drug in 500 mg. 7  
**OR**  
 c) Write a notes on  
 (i) Responding to prescription    (ii) Pricing of prescription 7  
 d) Explain parts of prescription. Explain various types of dose calculations for infants and children. 7
4. a) Classify containers with respect to method of closures. 4  
 b) Write about various cautionary and advisory labels for different formulations. 4  
 c) Write in detail about blister, strip and bubble packing. 7  
**OR**  
 d) Give storage conditions for various medicinal products. 6  
 e) Explain in detail about the container closure system for semisolid preparations meant for application to the skin or mucosa. 8
5. a) Discuss in detail about the preparation and various therapeutic and diagnostic uses of radiopharmaceuticals. 9  
 b) Write about i) Sweetening agents    ii) Colouring agents  
**OR**  
 c) Discuss in brief about the uses, containers, handling and storage of official medical gases.  
 d) Explain in detail about Hydrocolloids and Surfactants.

\*\*\*\*\*

**FACULTY OF PHARMACY**

**B. Pharmacy I-Sem (CBCS) (Backlog) Examination, August 2019 Subject:  
Basic Computer Application - I**

**Time: 3 Hours**

**Max. Marks: 70**

**Note: Answer ALL questions. All questions carry equal marks.**

1. (a) Draw block diagram of a computer and explain its components.  
(b) Write about types of Printers.

**OR**

- (c) Define OS (operating system). Explain the functions of OS.  
(d) Write about MICR, OCR & CDROM.

2. (a) Write the features of MS WORD.  
(b) Explain working with files and spelling and grammar in MS WORD.

**OR**

- (c) Explain the concept of charts and Graphs in Ms Excel.  
(d) Write about different types of formulas and functions in Ms Excel.

3. (a) Explain Transitions and Animations in Ms Powerpoint. (b) Write short notes on :  
i) Views      ii) Slide control      iii) Master slide

**OR**

- (c) Write short notes on :  
i) Data types      ii) Queries  
iii) Sorting & filtering      iv) Forms

4. (a) Explain about Pharmaceutical Resources in WWW, Types of Indexing tools & Search strategies.

**OR**

- (b) Write short note on  
i) Information search in WWW      ii) Search Engines  
iii) Email      iv) Browsers

5. (a) Explain the basic structure of HTML.  
(b) Write short notes on i) Forms      ii) Images

**OR**

- (c) Explain about different types of list tags in HTML.  
(d) Write about text formatting & tables in HTML.

\*\*\*\*\*

## FACULTY OF PHARMACY

## B. Pharmacy I-Semester (CBCS) (Backlog) Examination, August 2019

## Subject: Pharmaceutical Inorganic Chemistry

Time: 3 Hours

Max. Marks: 70

Note: Answer ALL questions. All questions carry equal marks.

1. (a) What are limit tests? Explain the principle & procedure involved in the limit test for arsenic with a neat labeled diagram. 9
- (b) Explain the principle and procedure involved in the limit test for chlorides 5
- OR
- (c) Classify pharmaceutical inorganic compounds based on their therapeutic applications with examples. 10
- (d) Explain the following with respect to limit tests. 2+2
- i. Role of citric acid and ammonia in limit test for iron.
- ii. Role of barium sulphate reagent in limit test for sulphates.
2. (a) What are antacids? Give the preparation and assay of magnesium hydroxide mixture and aluminium hydroxide gel. 1+8
- (b) Write the following. 2+3
- i. Preparation and uses of magnesium sulphate
- ii. Assay of ammonium chloride
- OR
- (c) Explain the preparation, properties, official preparations and uses of calcium gluconate. 6
- (d) Describe the significance of dialysis fluids. 3
- (e) What are electrolyte replenishers? Write the preparation and assay of sodium chloride. 5
3. (a) What are antioxidants? Give the preparation, properties, tests for purity and uses of sodium metabisulphite. 1+5
- (b) List out the official iron compounds used as haematinics. Write the preparation, properties and assay of ferrous sulphate. 1+4
- (c) Write a note on activated charcoal. 3
- OR
- (d) Write the preparation, properties and uses of following: 3+3+3
- (i) Magnesium stearate (ii) Ferric ammonium citrate (iii) Silica gel
- (e) Give a note on suspending agents. 5
4. (a) Give the preparation, properties and uses of the following: 3+3+3
- i. Zinc Sulphate ii. Silver nitrate iii. Copper sulphate
- (b) What is Cyanide poisoning? Give the preparation and mechanism of any one inorganic compound used in the treatment of cyanide poisoning. 1+4
- OR
- (c) Define the terms 'emetics' and 'antidotes' with examples. 2
- (d) What are expectorants? Write the preparation, properties, assay and uses of potassium iodide. 1+5
- (e) Give the preparation, tests for purity and uses of boric acid. ....2

5. (a) Write the preparation, properties and uses of 5+4+5  
i. Hydrogen peroxide    ii. Plaster of paris    iii. Zinc oxide  
OR
- (b) Define the terms with examples 1+1+1+1  
i. Antiothyrid agents    iii. Surgical acids  
ii. Dentifrices    iv. Cements & fillers
- (c) What are diagnostic agents? Discuss the preparation, properties, tests for purity and assay of barium sulphate. 2+8

\*\*\*\*\*

ST. PAULS COLLEGE OF PHARMACY, TURKAYAMJAL

## FACULTY OF PHARMACY

**B. Pharmacy I-Sem (CBCS) (Backlog) Examination, August 2019 Subject:  
General Pharmacy**

Time: 3 Hours

Max. Marks: 70

**Note: Answer ALL questions. All questions carry equal marks.**

1. (a) Explain the detailed pharmacopoeial monograph contents with an example of API. 9  
 (b) Explain in detail about various career opportunities in pharmacy. 5  
 OR  
 (c) Give brief explanation to USP and BP. 7  
 (d) Discuss about the affiliating bodies of Pharmaceutical education. 7
2. (a) Define Normality, Molarity and Molality. 4  
 (b) Write short note on minimum weighable amounts and calibration of weights. 6  
 (c) How much quantity of 95% alcohol will be required to prepare 400 ml of 45% alcohol. 4  
 OR  
 (d) Explain in detail about the selection and care of weights and balances. 5  
 (e) Convert 80<sup>U</sup> OP and 40<sup>U</sup> UP to percentage V/V alcohol. 4  
 (f) What are isotonic solutions and explain different methods for adjusting tonicity. 5
3. (a) Define prescription. Explain in detail about the Parts of prescription. 7  
 (b) Calculate the dose if the adult dose of the drug is 500mg for:  
 i) 8 months old infant ii) 6 years child iii) Boy of 13 years 7  
 OR  
 (c) Explain parts of prescription. Explain various types of dose calculations for infants and children. 7  
 (d) Write a note on i) Responding to prescription ii) Pricing of prescription. 7
4. (a) Classify containers with respect to method of closures. 4  
 (b) Write about various cautionary and advisory labels for different formulations. 6  
 (c) What are the ideal properties of the container closure system? 4  
 OR  
 (d) Write a note on child resistant containers. 6  
 (e) Explain in detail about the container closure system for semisolid preparations meant for application to the skin or mucosa. 8
5. (a) Write a note on Hydrocolloids. 7  
 (b) Discuss in brief about the uses, safety measures and precautions while handling medical gases. 7  
 OR  
 (c) Write a note on i) Antioxidants ii) Surfactants 4+4  
 (d) Discuss in detail about the preparation and uses of any two radiopharmaceuticals. 6

\*\*\*\*\*



## FACULTY OF PHARMACY

## B. Pharmacy I – Semester (CBCS) (Backlog) Examination, January 2019

## Subject: Human Anatomy and Physiology – I

Time: 3 Hours

Max.Marks: 70

**Note: Answer all questions. All questions carry equal marks.**

- 1 a) Explain in detail about the structure and functions of plasma membrane with a neat labeled diagram. 9  
 b) Define and explain different types of active transport mechanism with examples. 5  
**OR**
- 2 a) Define tissue and explain in detail about muscular tissues. 10  
 b) Explain different types of body cavities. 4
- 3 a) What is a Joint? Explain different types of synovial joints with examples. 8  
 b) How many bones are there in face and explain them briefly. 6
- 4 a) Write about the process of muscle contraction in detail. 9  
 b) Write short notes on Neuromuscular junction. 5
- 5 a) Define haemopoiesis and explain in detail about haemopoiesis. 9  
 blood cells. 5  
 b) Classify the types of blood cells and write about structure and functions of white blood cells. 5  
**OR**
- 6 a) Explain the structure and functions of lymph nodes with a neat labeled diagram. 8  
 b) What are the different types of lymph trunks and ducts involved in draining of lymph. 6  
 G 7 a) \_\_\_\_\_ 10  
 b) Explain about the pulmonary circulation of blood. 4  
**OR**
- 8 a) What is meant by blood pressure and write about neuronal regulation of blood pressure. 9  
 b) Define and explain in detail about ECG. 5
- 9 a) Explain the structure of eye with a neat labeled diagram. 9  
 b) Write short notes on physiology of taste buds. 5  
**OR**
- 10 a) Write in detail about the structure and functions of skin. 8  
 b) Explain the physiology of olfaction. 6

**FACULTY OF PHARMACY****B. Pharmacy I – Semester (CBCS) (Backlog) Examination, January 2019****Subject: General Pharmacy****Time: 3 Hours****Max.Marks: 70****Note: Answer all questions. All questions carry equal marks.**

- 1 a) Write in detail about Pharmaceutical Education in India. 7  
Write a note on the following: 7  
b) Indian Pharmacopia (IP)  
c) United States Pharmacopia (USP)
- OR**
- 2 a) Write in detail about Evolution of Pharmacy. 7  
b) Write a note on Pharmacy as a career. 7
- 3 Write a note on the following: 14  
a) Alligation method  
b) Proof spirit  
c) Write the calculation for preparation of 500 ml 50% alcohol from 90% alcohol and water by allegation method.
- OR**
- 4 Write a note on the following: 14  
a) Alcohol dilution  
b) Isotonic solution  
c) Calculate the real strength of 30<sup>v</sup> O.P. and 40<sup>v</sup> U.P.  
b) Write a note on calculations College of dose for infants and children. 4
- 5 a) Define Posology? Write in detail about factors influencing dose. 10
- OR**
- 6 a) Define prescription? Write various parts, sources of errors and its handling. 8  
Write note on the following: 6  
a) Modern methods of prescription  
b) Responding to prescription
- 7 a) Classify different types of containers and closures and describe them. 8  
b) Write a note on the cautionary and Advisory Labels. 6
- OR**
- 8 a) Write a note on different materials used in the preparation of containers and closures. 10  
b) Write a note on modern unit dose packaging. 4
- 9 Write a note on the following: 14  
a) Flavouring agents  
b) Colouring agents  
c) Write a note on medical gases and its uses.
- OR**
- 10 Write a note on the following: 14  
a) Vehicles  
b) Surfactants  
c) Write a note on radio pharmaceuticals and its therapeutic and diagnostic uses.

## FACULTY OF PHARMACY

## B. Pharmacy I – Semester (CBCS) (Backlog) Examination, January 2019

## Subject: Pharmaceutical Inorganic Chemistry

Time: 3 Hours

Max.Marks: 70

**Note: Answer all questions. All questions carry equal marks.**

- 1 a) Define limit test. Explain the principle and procedure involved in the limit test for arsenic with a neat labeled diagram. 8  
 b) Discuss about sources of impurities in pharmaceuticals. 6  
**OR**
- 2 a) Classify inorganic pharmaceuticals based on their therapeutic applications with examples. 8  
 b) Explain the principle and procedure involved in the limit test for iron and sulphates. 3+3
- 3 a) What are antacids? Give the method of preparation and assay of aluminium hydroxide gel and magnesium hydroxide mixture. 1+4+4  
 b) Write the significance of acid-base regulators. 5  
**OR**
- 4 a) What are electrolyte replenishers? Write the method of preparation, assay and uses 8
- 5 a) What are haematinics? Mention the preparation, properties and uses of ferrous sulphate and ferrous gluconate. 7  
 Classify pharmaceutical aids with examples. Write note on activated  
 b) charcoal. 3+4
- 6 a) What are suspending agents? Write the preparation and uses of bentonite. 5  
 b) Give the method of preparation, properties and uses of  
 (i) Sodium bisulphate  
 (ii) Magnesium stearate
- 7 a) Define the term expectorant and emetic. Give the method of preparation and uses of potassium iodide and copper sulphate. 8  
 b) What are anti infectives? Write a note on iodine solutions. 6  
**OR**
- 8 a) Give the method of preparation, properties and uses of the following: 5+5  
 (i) Zinc oxide  
 (ii) Calcium hydroxide  
 b) Write a note on silicone polymers. 4
- 9 a) What are anticaries agents? Explain the role of fluorides in preventing dental caries. 1+5  
 b) Define oral antiseptic and astringent. Mention the preparation, test for purity and assay of hydrogen peroxide. 8  
**OR**
- 10 a) What are diagnostic agents. Give the method of preparation and assay of barium sulphate. 8  
 b) Mention the properties and uses of the following: 6  
 (i) Calcium carbonate (ii) Potassium perchlorate.

ST. PAULS COLLEGE OF PHARMACY, TURKAYAMJAL

## FACULTY OF PHARMACY

B. Pharmacy I – Semester (CBCS) (Backlog) Examination, February 2019

Subject: Mathematics

Time: 3 Hours

Max.Marks: 70

Note: Answer all questions. All questions carry equal marks.

1 a) Find the value of  $\log_{\frac{2}{7}} 2^6$ .

b) If  $\tan 20^\circ = K$ , prove that  $\frac{\tan 250^\circ + \tan 340^\circ}{\tan 200^\circ - \tan 110^\circ} = \frac{1-K^2}{1+K^2}$ .

OR

2 a) Prove that  $\frac{1}{\log_a^{abc}} + \frac{1}{\log_b^{abc}} + \frac{1}{\log_c^{abc}} = 1$ .

b) If  $\tan \theta = a/b$ , find  $\frac{a \sin \theta + b \cos \theta}{a \sin \theta - b \cos \theta}$ .

3 a) Find  $\int \frac{\sin x - \tan x}{x} dx$ .

b) If  $y = ae^{2x} + be^{-x}$ , find  $\frac{dy}{dx}$  and  $\frac{d^2y}{dx^2}$ .

OR

4 a) Find the derivative of  $\cos x$  using first principle.

b) Find the maximum value of  $2x^2 - 3x - 10$ .

b) Evaluate  $\int \frac{dx}{1+x^2}$ .

5 a) Evaluate  $\int \frac{dx}{1+x^2}$ .

OR

6 a) Evaluate  $\int \cos^3 x \sin x dx$ .

b) Evaluate  $\int \frac{2x+1}{x^2+x+1} dx$ .

7 a) If  $A = \begin{bmatrix} 1 & 2 & 2 \\ 2 & 1 & 2 \\ 2 & 2 & 1 \end{bmatrix}$ , then show that

$$A^2 - 4A - 5I = 0$$

b) If  $A = \begin{bmatrix} 0 & 1 & 2 \\ 1 & 2 & 3 \\ 1 & 1 & 1 \end{bmatrix}$ , find  $A^{-1}$ .

ST.PAULS COLLEGE OF PHARMACY, TURKAYAMJAL

-2-

OR

8 a) If  $A = \begin{bmatrix} 3 & -3 & 4 \\ 2 & -3 & 4 \\ 0 & -1 & 1 \end{bmatrix}$  then show that  $A^{-1} = A^3$ .

b) Solve the equations  $3x + 4y + 5z = 18$ ,  $2x - y + 8z = 13$  and  $5x - 2y + 7z = 20$ , by matrix inversion method.

9 a) Find the distance between the points  $(-1, 1)$  and  $(2, 3)$ .

b) Find the equation of the straight line passing through the point  $(-2, 1)$  and parallel to  $4x - 7y + 3 = 0$ .

OR

10 a) Explain about linear and non-linear graphs and their importance in biological data representation and comparison.

b) Find the centre and radius of the circle  $x^2 + y^2 + 4x + 6y + 1 = 0$ .

\*\*\*\*

ST. PAULS COLLEGE OF PHARMACY, TURKAYAMJAL

**FACULTY OF PHARMACY**

**B. Pharmacy I – Semester (CBCS) (Backlog) Examination, February 2019**

**Subject: Biology**

**Time: 3 Hours**

**Max.Marks: 70**

**Note: Answer all questions. All questions carry equal marks.**

- 1 a) Draw neat labelled diagram of ultra structure of plant cell.  
b) Define tissue. Describe the structure and function of Xylem tissues.  
**OR**
- 2 a) Describe the histology of dicot stem with the help of a neat labelled diagram.  
b) Write a note on waste products in a plant cell.
- 3 a) Discuss various storage roots.  
b) Discuss various types of venation in leaf.  
**OR**
- 4 a) Describe the types of simple dry dehiscent fruit.  
b) Discuss aerial stem modifications.
- 5 a) Write a note on medicinal and economic importance of Leguminosae.  
b) Discuss the floral characters of Umbelliferae.  
**OR** of
- 6 a) Draw the floral diagrams and write the floral formula of Apocynaceae and Scrophulariaceae.  
b) Classify *Datura innoxia* in its family with the help of its floral characters.
- 7 a) Draw neat and labelled diagram of histology of Rabbit kidney.  
b) Discuss the histology of rabbit kidney in detail.  
**OR**
- 8 a) List out the difference between plant and animal cell.  
b) Draw neat and labelled diagram of histology of Pancreas of Rabbit.
- 9 a) Discuss the life-cycle and pathogenicity of tapeworm *Taenia solium*.  
b) Discuss the life-cycle of Housefly.  
**OR**
- 10 a) Describe the life-history of Plasmodium in man.  
b) Describe the life-history of Entamoeba.

\*\*\*\*



## FACULTY OF PHARMACY

B. Pharmacy I – Semester (CBCS) (Backlog) Examination, February 2019

Subject: Mathematics

Time: 3 Hours

Max.Marks: 70

Note: Answer all questions. All questions carry equal marks.

1 a) Find the value of  $\log_{\sqrt{2}} 64$ .

b) If  $\tan 20^\circ = K$ , prove that  $\frac{\tan 250^\circ + \tan 340^\circ}{\tan 200^\circ - \tan 110^\circ} = \frac{1-K^2}{1+K^2}$ .

OR

2 a) Prove that  $\frac{1}{\log_a^{abc}} + \frac{1}{\log_b^{abc}} + \frac{1}{\log_c^{abc}} = 1$ .

b) If  $\tan \theta = a/b$ , find  $\frac{a \sin \theta + b \cos \theta}{a \sin \theta - b \cos \theta}$ .

3 a) Find  $\int \frac{\sin x - \tan x}{x} dx$ .

b) If  $y = ae^{2x} + be^{-x}$ , find  $\frac{dy}{dx}$  and  $\frac{d^2y}{dx^2}$ .

OR

4 a) Find the derivative of  $\cos x$  using first principle.

b) Find the maximum value of  $2x^2 - 3x - 10$ .

b) Evaluate  $\int \frac{dx}{1+x^2}$ .

5 a) Evaluate  $\int \frac{dx}{1+x^2}$ .

OR

6 a) Evaluate  $\int \cos^3 x \sin x dx$ .

b) Evaluate  $\int \frac{2x+1}{x^2+x+1} dx$ .

7 a) If  $A = \begin{bmatrix} 1 & 2 & 2 \\ 2 & 1 & 2 \\ 2 & 2 & 1 \end{bmatrix}$ , then show that

$$A^2 - 4A - 5I = 0$$

b) If  $A = \begin{bmatrix} 0 & 1 & 2 \\ 1 & 2 & 3 \\ 1 & 1 & 1 \end{bmatrix}$ , find  $A^{-1}$ .

ST. PAULS COLLEGE OF PHARMACY, TURKAYAMJAL

-2-

**OR**

8 a) If  $A = \begin{bmatrix} 3 & -3 & 4 \\ 2 & -3 & 4 \\ 0 & -1 & 1 \end{bmatrix}$  then show that  $A^{-1} = A^3$ .

b) Solve the equations  $3x + 4y + 5z = 18$ ,  $2x - y + 8z = 13$  and  $5x - 2y + 7z = 20$ , by matrix inversion method.

9 a) Find the distance between the points  $(-1, 1)$  and  $(2, 3)$ .

b) Find the equation of the straight line passing through the point  $(-2, 1)$  and parallel to  $4x - 7y + 3 = 0$ .

**OR**

10 a) Explain about linear and non-linear graphs and their importance in biological data representation and comparison.

b) Find the centre and radius of the circle  $x^2 + y^2 + 4x + 6y + 1 = 0$ .

\*\*\*\*

ST. PAULS COLLEGE OF PHARMACY, TURKAYAMJAL

**FACULTY OF PHARMACY**

**B. Pharmacy I – Semester (CBCS) (Backlog) Examination, February 2019**

**Subject: Biology**

**Time: 3 Hours**

**Max.Marks: 70**

**Note: Answer all questions. All questions carry equal marks.**

- 1 a) Draw neat labelled diagram of ultra structure of plant cell.  
b) Define tissue. Describe the structure and function of Xylem tissues.  
**OR**
- 2 a) Describe the histology of dicot stem with the help of a neat labelled diagram.  
b) Write a note on waste products in a plant cell.
- 3 a) Discuss various storage roots.  
b) Discuss various types of venation in leaf.  
**OR**
- 4 a) Describe the types of simple dry dehiscent fruit.  
b) Discuss aerial stem modifications.
- 5 a) Write a note on medicinal and economic importance of Leguminosae.  
b) Discuss the floral characters of Umbelliferae.  
**OR** of
- 6 a) Draw the floral diagrams and write the floral formula of Apocynaceae and Scrophulariaceae.  
b) Classify Datura innoxia in its family with the help of its floral characters.
- 7 a) Draw neat and labelled diagram of histology of Rabbit kidney.  
b) Discuss the histology of Rabbit kidney.  
**OR**
- 8 a) List out the difference between plant and animal cell.  
b) Draw neat and labelled diagram of histology of Pancreas of Rabbit.
- 9 a) Discuss the life-cycle and pathogenicity of tapeworm Taenia solium.  
b) Discuss the life-cycle of Housefly.  
**OR**
- 10 a) Describe the life-history of Plasmodium in man.  
b) Describe the life-history of Entamoeba.

\*\*\*\*

## FACULTY OF PHARMACY

B. Pharmacy I – Semester (CBCS) (Backlog) Examination, January 2019

Subject: Basic Computer Applications – I

Time: 3 Hours

Max.Marks: 70

**Note: Answer all questions. All questions carry equal marks.**

- 1 a) Describe the basic structure of a computer. Explain the functions and components of computer. 7  
 b) Write the principles of flow charting. List commonly used symbols in flow charts. 7  
**OR**
- 2 a) What is operating system? Explain importance and features of OS. 7  
 b) What is VIRUS? How it will affect the computer and how can we protect computer from viruses? 7
- 3 a) Discuss about tables in MS-WORD. 7  
 b) Discuss about creating, editing and formatting document in MS-WORD. 7  
**OR**
- 4 a) Write about important features of MS-EXCEL. 7  
 b) Explain chart and graphs in Excel. 7
- b) Explain about templates and wizards. 7  
**OR**
- 6 Explain about 14  
 a) Table Relationships  
 b) Queries  
 c) Data types in MS Access  
 d) Databases
- 7 Explain the following: 14  
 a) Structure and organization of WWW  
 b) E-Mail  
 d) Pharmaceutical resources in WWW **OR**
- 8 a) Explain about different types of indexing tools and search strategies. 14  
 b) Internet browsers  
 c) Information search in WWW  
 d) Text formatting with examples.
- 9 Explain the following: 14  
 a) HTML  
 b) Structure of HTML  
 c) Text formatting with examples.  
**OR**
- 10 Explain the following: 14  
 a) HTML  
 b) Hyperlinks  
 c) Frames and forms in HTML  
 d) List tags with examples.

## FACULTY OF PHARMACY

**B. Pharmacy - I Semester (Backlog) (CBCS) Examination, August 2018**

**Subject: General Pharmacy**

**Time: 3 Hours**

**Max.Marks: 70**

**Note: Answer all questions. All Questions carry equal marks.**

- 1 a) Write a note on affiliating bodies for pharmaceutical education in India. 7  
 b) Explain in detail about various career opportunities in pharmacy. 7  
 (OR)  
 c) Discuss about the historical development of pharmaceutical industry in India. 4  
 d) Explain each term of monograph by taking an example of a drug. 10
- 2 a) Explain in detail about the selection and care of weights and balances. 4  
 b) What are isotonic solutions? Write about different methods of adjusting isotonicity. 6  
 c) Calculate 50% V/V and 25% V/V alcohol required to prepare 150 ml of 40% V/V alcohol by allegation method. 4  
 (OR)  
 d) Define Normality, Molarity and Molality. 4  
 e) Write a note on minimum weighable amounts 5  
 f) Find the proportion of dextrose required to produce a solution isosmotic with blood plasma (Molecular weight of dextrose – 180)of. 5
- 3 a) Discuss about the care required in handling prescriptions. 4  
 b) Give a note on factors influencing in dose calculations. 4  
 c) Define prescription. Explain Parts of prescription. 6  
 (OR)  
 d) Explain various types of dose calculations for infants and children. 5  
 e) What are the probable sources of errors in prescription? 5
- f) Explain modern methods of prescribing medicines. 4
- 4 a) Give storage conditions for various medicinal products. 4  
 b) Write a note on various types of materials used in preparation of containers and closures in detail. 10  
 (OR)  
 c) Write in detail about blister, strip and bubble packing. 7  
 d) Write a note on : 3+4  
 (i) Ideal properties of the container closure system.  
 (ii) Child resistant containers.
- 5 a) What are surfactants ? Enlist different classes of surfactants and their Pharmaceutical applications. 7  
 b) Explain various therapeutic and diagnostic uses of radiopharmaceuticals. 7  
 (OR)  
 c) Write about containers used in medical gases. Explain handling and storage of medical gases. 6  
 d) Give a note on : 3+3+2  
 i) Colouring agents  
 ii) Vehicles  
 iii) Sweetening agents

\*\*\*\*

ST.PAULS COLLEGE OF PHARMACY, TURKAYAMJAL

## FACULTY OF PHARMACY

## B. Pharmacy - I Semester Main (Backlog) Examination, August 2018

## Subject: Human Anatomy &amp; Physiology-I

Time: 3 Hours

Max.Marks: 70

Note: Answer all questions, All Questions carry equal marks.

- 1 a) Discuss the properties and functions of epithelial tissue. 7 m  
 b) Discuss the active and passive transport of substances across cell membrane. 7 m  
 (OR)  
 c) Describe the structure and functions of Nervous tissue. 7 m  
 d) Explain the structure and functions of cell and components with a neat labeled diagram. 7 m
- 2 a) Explain the structure and functions of following bones with neat Labeled diagram. 14  
 b) Discuss the various types and movement of joints. 8  
 (i) Axis (ii) Scapula (iii) Femur (iv) Rib  
 (OR)  
 c) Write a note on neuromuscular junction. of 6 m  
 b) Write the functions of Lymph. 6 m
- 3 a) Explain the composition and functions of blood. 8 m  
 (OR)  
 c) Explain the ABO and Rh blood Groups. 8 m  
 d) Write note on thymus gland. 6 m
- 4 a) Explain structure of heart with a neat labeled diagram. 10 m  
 b) Write about ECG. 4 m  
 (OR)  
 c) Describe the factors affecting blood pressure. 8 m  
 d) Explain the conducting system of heart. 6 m
- 5 a) Discuss the anatomy of ear with a neat labeled diagram. 10 m  
 b) Write the functions of Skin. 4 m  
 (OR)  
 c) Explain the physiology of eye. 10 m  
 d) Describe the anatomy of taste bud. 4 m



**FACULTY OF PHARMACY**  
**B. Pharmacy I-Semester (CBCS) (Backlog) Examination, July 2018**

**Subject: Basic Computer Applications-I**

**Time: 3 Hours**

**Max.Marks: 70**

**Note: Answer all questions, All Questions carry equal marks.**

- 1 a) What is Memory ? Explain different types of Memory.  
b) Explain characteristics of Computer.  
**OR**  
c) Draw block diagram of Computer and write different input and output devices.
- 2 a) Explain the process of Spelling and Grammar Checking.  
b) Explain concept of Charts and graphs.  
**OR**  
c) Write short note on  
(i) Auto format (ii) Merging and Centering text (iii) Wrapping text.
- 3 a) Illustrate about Animation and Apply design .  
b) Explain about concept of graphics in MS Power Point.  
**OR**  
c) Create table with primary key in MS Access.  
d) How to make relationship between two tables.
- 4 a) How to search information in WWW?  
**OR**  
b) Explain concept of E-Mail.
- 5 a) What is a frame ? Explain frameset tag attribute and frame tag attribute.  
b) Explain concept of form and form controls with examples.  
Reddy  
Hyderabad  
**OR**  
c) Write short note on  
(i) Paragraph Tag with alignments.  
(ii) Font Tags with color, size.  
(iii) Image Tag.

\*

## FACULTY OF PHARMACY

B. Pharmacy I–Semester (CBCS) (Backlog) Examination, August 2018

Subject: Mathematics

Time: 3 Hours

Max. Marks: 70

Note: Answer all questions. All questions carry equal marks.

1. (a) If  $\log_a abc = x + 1$ ,  $\log_b abc = y + 1$ , and  $\log abc = z + 1$  Then show that  $xyz = x + y + z + 2$ .

(b) If  $\sin a = 4/5$  and  $\sin B = 5/13$  find the value of  $\sin(A + B)$ ,  $\cos(A + B)$

(OR)

(c) Find the Value of  $x$ ,  $\log_5 x + \log_x 5 = \frac{5}{2}$

(d) If  $\tan(A-B) = \frac{7}{24}$  and  $\tan A = 4/3$ , show that  $A + B = \frac{\pi}{2}$ .

2. (a) Use first principles to find the  $\tan x$  derivative

(b) Find the maxima and minima of the function  $f(x) = 4x - 3x^2 + 4$

(OR)

$$\left( \frac{3}{x+y} \right)$$

$$\frac{\partial \mu}{\partial x} \quad \frac{\partial \mu}{\partial y}$$

(c) If  $\mu = \log \left| \frac{x+y}{x-y} \right|$  prove that  $x \frac{\partial \mu}{\partial x} - y \frac{\partial \mu}{\partial y} = 2$ .

(d) If  $z = x - xy + y$ . Find  $\frac{\partial z}{\partial x}$  and  $\frac{\partial z}{\partial y}$ .

G

3. (a) Evaluate  $\int \frac{1}{1 + \sin x} dx$

(b) Evaluate  $\int \frac{1}{\cos x \cos 2x \cos 3x} dx$

(OR)

$$\frac{\tan x}{1 + \cos x}$$

(d) Find the area bounded by the parabolas  $Y = 4ax$  and  $x = 4by$

4. (a) Show that  $\begin{vmatrix} 1 & 1 & 1 \\ a & b & c \\ a^3 & b^3 & c^3 \end{vmatrix} = (a-b)(b-c)(c-a)(a+b+c)$

(b) Solve the system of equations  $x + y + z = 1$ ,  $x + 2y + 3z = 6$ ,  $x + 3y + 4z = 6$ , by matrix Inversion method.

(OR)

(c) Find the value of  $x$  if  $\begin{vmatrix} x+1 & 2 & 3 \\ 1 & x+2 & 3 \\ 1 & 2 & x+3 \end{vmatrix} = 0$

(d) If  $A = \begin{vmatrix} 3 & -5 \end{vmatrix}$  show that  $A^2 - 5A = 14I$ .

| – ||4 2|

5. (a) Write about linear and non – linear graphs.

(OR)

(b) Define degree, order of a differential equation and solve  $(x + 1) \frac{dy}{dx} - y = e^{3x} (x + 1)^2$   
\*\*\*\*\*

ST. PAULS COLLEGE OF PHARMACY, TURKAYAMJAL

**FACULTY OF PHARMACY**

**B. Pharmacy - I Semester (CBCS) (Backlog) Examination, August 2018**

**Subject : Biology**

**Time: 3 Hours**

**Max.Marks: 70**

**Note: Answer all questions, All Questions carry equal marks.**

- 1 a) Discuss about living cell inclusions of plant cell.  
b) Describe a detailed note on simple permanent tissues.  
(OR)  
(OR)  
c) With neat labeled diagram explain in detail internal structure of root and stem.
- 2 a) Explain inflorescence in detail.  
b) Describe various morphological characters of leaf.  
c) Discuss various types of leaf modification with their significance.  
(OR)
- 3 a) Discuss the taxonomy of solanaceae family.  
b) Describe vegetative and floral characters of Umbelliferae of family.  
c) Describe vegetative, floral characters and taxonomy of leguminosae family.
- 4 a) Describe in detail meiosis with neat labeled diagram.  
b) Write note on histology of rabbit kidney.  
c) Differentiate between plant and animal cell.  
d) Write a note on histology of rabbit pancreas.
- 5 a) Describe the life history of plasmodium with neat labeled diagram.  
(OR)  
b) Describe the morphology and life history of trypanosoma with neat labeled diagram.

**Pulla**

**G**

## FACULTY OF PHARMACY

## B. Pharmacy I-Semester (CBCS) (Backlog) Examination, July 2018

## Subject: Pharmaceutical Inorganic Chemistry

Time: 3 Hours

Max.Marks: 70

**Note: Answer all questions, All Questions carries equal marks.**

- 1 a) Write the classification of inorganic pharmaceuticals based on their therapeutic uses with examples. 10
- b) Explain the principle and procedure involved in the limit test for iron. 4
- OR**
- c) List out various sources of impurities in Pharmaceutical substances. Explain any two of them with suitable examples. 6
- d) Describe the principle and procedure involved in the limit test for arsenic with a neat labeled diagram. 8
- 2 a) Define 'Antacids' and Laxatives'. Give the preparation and tests for Purity of (i) Aluminium hydroxide gel (ii) Magnesium sulphate. 2+6
- b) Give the composition, mode of supply and uses of (i) Haemodialysis fluid (ii) Peritoneal dialysis fluid. 6
- c) Explain the role of electrolytes in body fluids. 3
- d) Write the preparation, properties, uses and official preparations of following: (i) Sodium Chloride (ii) Calcium gluconate 4+4
- e) Describe the principle and procedure involved in the assay of ammonium Chloride. 3
- 3 a) What are Haematinics ? Give the preparation, tests for purity and uses of ferric ammonium Citrate and ferrous sulphate. 1+6
- b) Define absorbent, adsorbent and suspending agents with examples. 3
- Write a note on
- c) desiccants. **OR** 4
- d) Write the preparation, properties and uses of following: 3x3
- (i) Ferric ammonium Citrate.
- (ii) Magnesium Stearate.
- (iii) Sodium metabisulphite.
- e) Write a note on suspending agents. 5
- 4 a) What are expectorants ? Give the preparation, properties and assay of potassium iodide. 5
- b) Write the preparation, properties and uses of following compounds: 3x3
- (i) Sodium nitrite
- (ii) Copper sulphate
- (iii) Boric acid.

**OR**

-2 -

- c) What are anti-infective agents ? Write the preparation, assay and uses of following: 1+8  
(i) Potassium permanganate  
(ii) Silver nitrate.
- d) Define 'astringents'? Explain the preparation, tests for purity and properties of Zinc sulphate. 1+4
- 5 a) Write the significance of fluorides in dental products. 5  
b) Explain the preparation, properties and uses of following: 3x3  
(i) Hydrogen peroxide  
(ii) Zinc Oxide  
(iii) Calcium Carbonate
- OR**
- c) What are diagnostic agents ? Discuss the preparation, properties, tests for purity and assay of Barium sulphate. 1+5  
d) Write a note on plaster of Paris. 4  
e) What are Cements and fillers ? Write the preparation, and properties of  
Zinc Oxide. 1+3

ST. PAULS COLLEGE OF PHARMACY, TURKAYAMJAL

**FACULTY OF PHARMACY**  
**B. Pharmacy I-Semester (CBCS) (Suppl.) Examination, January 2018**

**Subject : Pharmaceutical Inorganic Chemistry**

**Time : 3 Hours**

**Max. Marks: 70**

**Note: Answer all questions. All questions carry equal marks.**

- 1 (a) What is an impurity? Explain how impurities get incorporated in the official pharmaceutical substances. (1+9)
- (b) Explain the principle and procedure involved in the limit test for sulphates. (4)
- OR**
- (c) Classify pharmaceutical inorganic compounds based on their therapeutic applications with examples. (8)
- (d) Explain the following with respect to limit tests. (2+1+3)
- (i) Role of citric acid and ammonia in limit test for iron.
- (ii) Use of dil HNO<sub>3</sub> in limit test for chlorides.
- (iii) Principle involved in limit test for arsenic
- 2 (a) What are electrolyte replenishes? Write the preparation and assay of sodium chloride. (1+4)
- (b) Explain the preparation, properties and uses of calcium gluconate. (4)
- (c) Write a note on haemodialysis fluids. of (2)
- OR**
- (d) What are antacids? Give the preparation and assay of magnesium hydroxide mixture and aluminium hydroxide gel. (1+8)
- (e) Write the following :
- (i) Preparation and uses of magnesium sulphate (2)
- (ii) Assay of ammonium chloride (3)
- properties and assay of ferrous sulphate. (1+4)
- (b) Write a note on following: (5+4)
- (i) Activated charcoal-
- (ii) Bentonite
- OR**
- (c) What are antioxidants? Give the preparation, properties, tests for purity and uses of sodium metabisulphite. (1+5)
- (d) Write the preparation, assay and uses of following: (4+4)
- (i) Ferrous sulphate (ii) Magnesium stearate
- 4 (a) Explain the mechanism of cyanide poisoning. Give the preparation, assay and mechanism of any one inorganic compound used in the treatment of cyanide poisoning. (2+4)
- (b) Define the terms 'emetics' and 'expectorants' with examples. (2)
- (c) Write the preparation, properties and uses of following compounds. (3+3)
- (i) Copper sulphate (ii) Potassium iodide
- OR**
- (d) Give the preparation, tests for purity and uses of following: (3x3)
- (i) Zinc sulphate (ii) Boric acid (iii) Potassium permanganate
- (e) Write a note on Activated Dimeticone. (5)

..2..

5 (a) Explain the preparation, properties and uses of following : (4+4)  
(i) Plaster of Paris (ii) Zinc oxide

(b) Write a brief note on diagnostic agents. (6)

OR

(c) Define the following terms with examples. (3)  
(i) Diagnostic agents  
(ii) Dentifrices  
(iii) Cements and fillers

(d) Write the preparation, properties and uses of following compounds. (4+4+3)  
(i) Zinc oxide  
(ii) Hydrogen peroxide  
(iii) Sodium fluoride

ST. PAULS COLLEGE OF PHARMACY, TURKAYAMJAL



**FACULTY OF PHARMACY****B. Pharmacy I-Semester (CBCS) (Suppl.) Examination, January 2018****Subject : Human Anatomy and Physiology - I****Time : 3 Hours****Max. Marks: 70****Note: Answer all questions. All questions carry equal marks.**

- 1 (a) Define, classify tissues and explain in detail about epithelial tissues. (10)  
 (b) Define the following terms: (4)  
 (i) Anterior (ii) Superior (iii) Proximal (iv) Lateral  
**OR**  
 (c) Classify connective tissues and write about cartilage in detail. (8)  
 (d) Draw a neat labeled diagram of cell and explain the structure and functions of mitochondria. (6)
- 2 (a) What is a Joint? Explain different types of synovial joints with examples. (8)  
 (b) Write about the structure of a bone and add a note on its functions. (6)  
**OR**  
 (c) Explain the microscopic structure of a skeletal muscle in detail with a neat labeled diagram. (9)  
 (d) Write short notes on Neuromuscular junction. (5)
- 3 (a) Define haemostasis and explain the process of haemostasis. (9)  
 (b) Write about the composition and functions of plasma. (5)
- 4 (a) Define and explain the functions of spleen. (7)  
 (b) Write about the structure and functions of spleen with a neat labeled diagram. (7)  
 (c) Explain the structure and functions of spleen with a neat labeled diagram. (7)  
 (d) What are the different types of lymph trunks and ducts involved in draining of lymph? (7)
- 5 (a) Explain about the coronary circulation of blood. (4)  
 (b) Explain about the coronary circulation of blood. (4)  
 (c) What is meant by blood pressure and write about hormonal regulation of blood pressure. (9)  
 (d) Explain the phases of action potential. (5)
- 6 (a) Explain the structure of ear with a neat labeled diagram. (9)  
 (b) Write short notes on physiology of taste buds. (5)  
**OR**  
 (c) Write in detail about the physiology of audition. (9)  
 (d) Write about the different types of photoreceptor cells present in the retina of eye. (5)

\*\*\*\*\*

## FACULTY OF PHARMACY

B. Pharmacy I-Semester (CBCS) (Suppl.) Examination, January 2018

Subject : General Pharmacy

Time : 3 Hours

Max. Marks: 70

**Note: Answer all questions. All questions carry equal marks.**

- 1 (a) Write in detail about pharmaceutical industry and its development in India. (7)  
 (b) Write a note on the following: (7)  
 (i) British Pharmacopia (B.P).  
 (ii) Indian Pharmacopia (I.P.)  
 (iii) Martindale
- OR**
- (c) Write a note on the following: (14)  
 (i) Pharmaceutical education in India  
 (ii) Evolution of pharmacy
- 2 (a) Write a note on the following : (7)  
 (i) Alcohol dilution  
 (ii) Isotonic solutions
- (c) Write a note on the following: (7)  
 (b) Calculate the amount of 70% and 30% alcohol to be mixed to get 50% alcohol by using allegation method. (7)
- OR**
- (i) Proof spirit  
 (ii) Alligation method
- (d) Calculate the volume of 95 percent alcohol required to prepare 600ml of 60% alcohol by alcohol dilution method. (7)
- 3 (a) Define Prescription. Write various parts of prescription and modern methods of prescription. (8)
- (b) Discuss the sources of errors during handling and dispensing of prescription. (6)
- (c) Write a note on the following : **OR**  
 (i) Calculation of dose for infants and children (7)  
 (ii) Factors influencing dose (7)
- 4 (a) Define container and closure. Write a note on different materials used in the preparation of containers and closures. (14)
- (b) Classify different containers and closures and discuss them? Write a note on Blister and strip packaging.
- 5 (a) Write a note on medical gases and their uses. (7)  
 (b) Write a note on the following: (7)  
 (i) Preservatives (ii) Antioxidants
- OR**
- (c) Write a note on radio pharmaceuticals and their therapeutic and diagnostic uses. (7)  
 (d) Write a note on the following: (7)  
 (i) Colouring agents  
 (ii) Flavouring agents

## FACULTY OF PHARMACY

B. Pharmacy I-Semester (CBCS) (Suppl.) Examination, January 2018

Subject : Basic Computer Applications – I

Time : 3 Hours

Max. Marks: 70

**Note: Answer all questions. All questions carry equal marks.**

- 1 (a) What is operating system? Explain functions of OS.  
(b) Explain viruses and different types of viruses.

(c) Write about different types of printers.

- 2 (a) Illustrate about Macro's.  
(b) Explain about working with graphics in MS Word.

OR

- (c) Write about features of MS Excel.  
(d) Explain about data types in MS Excel.

OR

- 3 (a) Describe the working process of Text in MS Power Point.  
Library of  
(b) Explain about concept of templates with examples.

(i) Query (b) Forms (c) Reports from MS Access

(c) Write short notes on :

1701

Hydrabad

- 4 (a) What is WWW? Write its functions.

OR

- (b) What is Search Engine? Explain how search engine works and components of search engine.

- 5 (a) What is List? Explain different types of List tags with example program.  
(b) Write short note on :

(i) Achor Tag (ii) Marque Tag (iii) Heading Tag

- (c) Write a HTML program for creating a table which contains name, roll number, marks, grade as heading and enter 5 students information into table and also apply table width, cell podding, cell spacing, border as table.

\*\*\*\*\*

## FACULTY OF PHARMACY

B. Pharmacy I-Semester (CBCS) (Suppl.) Examination, January 2018

Subject : Mathematics

Time : 3 Hours

Max. Marks: 70

**Note: Answer all questions. All questions carry equal marks.**

- 1 (a) Prove that  $\log_x (a/b) = \log_x a - \log_x b$ , for  $a > 0, b > 0$ .
- (b) If  $\tan A = \frac{1}{2}$  and  $\tan B = \frac{1}{3}$ , where A and B are acute angles then find A + B.
- OR**
- (c) Find the value of  $\frac{1}{\log_x xy} + \log_{xy} y$ .
- (d) Show that  $\cos A + \cos (240^\circ - A) + \cos (240^\circ + A) = 0$ .
- 2 (a) Find the derivative of  $\tan x$  using first principle.

(b) Show that  $\lim_{x \rightarrow 0} \frac{\tan x}{x^2} = 1$  of

**OR**

(c) Prove that  $\lim_{x \rightarrow 3} \frac{x^3 - 6x - 9}{x^2 - 81} = \frac{7}{36}$  ..

(d) If  $z = 3x^2 - 2xy + 7y^2$ . Find  $\frac{\partial z}{\partial x}, \frac{\partial z}{\partial y}$ , — Pulla

3 (a) Find  $\int \frac{x^3 - 3x^2 + 2}{x} dx$ .

(b) Evaluate  $\int \frac{2x + 6}{x^2 + 6x + 11} dx$ .

**OR**

(c) Evaluate  $\int \frac{1}{5 + 4 \cos x} dx$ .

(d) Evaluate  $\int \frac{1 - \sin x}{x + \cos x} dx$

..2..

4 (a) If  $A = \begin{bmatrix} 3 & -2 \\ 1 & 6 \end{bmatrix}$  and  $B = \begin{bmatrix} 4 & -1 \\ 2 & 5 \end{bmatrix}$  then find AB and BA.

(b) Find the value of x if  $\begin{vmatrix} 3x-8 & 3 & 3 \\ 3 & 3x-8 & 3 \\ 3 & 3 & 3x-8 \end{vmatrix} = 0$

OR

(c) Show that  $\begin{vmatrix} a & b & c \\ a^2 & b^2 & c^2 \\ a^3 & b^3 & c^3 \end{vmatrix} = (abc)(a-b)(b-c)$ .

(d) If  $A = \begin{bmatrix} 2 & 0 \\ 3 & -5 \end{bmatrix}$  show that  $A^2 + 3A - 10I = 0$ .

5 (a) Find the equation of line passing through the points (2, -3), (-4, 3).

(b) Define linear and non-linear graphs with an example to each.

OR

(c) Show that the points (-1, 7), (3, -5), (4, -8) are collinear.

(d) Solve the differential equation  $x \frac{dy}{dx} = 3y$ .

\*\*\*\*\*

G

ST. PAULS COLLEGE OF PHARMACY, TURKAYAMJAL

**FACULTY OF PHARMACY**

**B. Pharmacy I-Semester (CBCS) (Suppl.) Examination, January 2018**

**Subject : Biology**

**Time : 3 Hours**

**Max. Marks: 70**

**Note: Answer all questions. All questions carry equal marks.**

- 1 (a) Describe the structure of plant cell.  
(b) Define tissue. Describe the different types of simple permanent tissue.  
**OR**  
(c) Describe the biology of dicot root with the help of a neat and labeled diagram.  
(d) Write a note on non-living cell inclusions.
- 2 (a) Define inflorescence. Describe types of cymose inflorescence.  
(b) Discuss various leaf modifications.  
**OR**  
(c) What is pericarp? Describe the types of simple fleshy fruit.  
(d) Discuss underground stem modifications.
- 3 (a) Write a note on medicinal and economic importance of Solanaceae.  
(b) Discuss the floral characters of Apocynaceae.  
**OR**  
(c) Draw the floral diagrams and give floral formula of any two sub-families of Leguminosae.  
(d) Describe the floral characters of umbeliferae.
- 4 (a) Draw neat and labeled diagram of the ultra structure of animal cell.  
(b) Discuss the mitotic cell division in animals.  
**OR**  
(d) Draw neat and labeled diagram of histology of liver of Rabbit and a note on its functions.
- 5 (a) Discuss the life -cycle and pathogenicity of Entamoeba histolytica.  
(b) Discuss the role of Housefly and Mosquito as agents for spreading diseases.  
**OR**  
(c) Describe the life-history of trypanosoma.  
(d) Describe the life-history of Ascaris.

\*\*\*\*\*