B.Pharm Ist SEMESTER EXAMINATION 2008-09

Subject Code: BPB-101   **Paper ID: 0671102**

Remedial Biology

Time: 3 Hours   **Max. Marks: 75**

Note: Attempt six questions in all. Q. No. 1 is compulsory.

1. Write short notes on any five of the following (limit your answer in 50 words).   (3x5=15)
   a) Ascaris
   b) Housefly
   c) Aggregate fruits
   d) Sclerenchyma
   e) Aestivation
   f) Gymnosperm
   g) Animal cell
   h) Cytokinensis

2. Describe general structure and life history of silk worm.   (12)

3. Write notes on: (6+6)
   a) Different types of veination
   b) Different types of simple fruits

4. Write difference between the following: (3+3+3)
   a) Tracheids and Vessels
   b) Sucker and Rhizome
   c) Stem and Root

5. What is Mitosis? Write down various stages with diagrams.   (12)

6.
   a) Draw a well labeled diagram of transverse section of dicot and monocot, roots.   (6)
   b) Explain complex permanent tissues and its various types with diagrams.   (6)

7.
   a) Describe life history of plasmodium.   (6)
   b) Modifications of tap root with diagrams.   (6)

8. Explain with diagrams: (6+6)
   a) Underground or subterranean stem.
   b) Classification of plant kingdom.

Subject Code: BPM101   **Paper ID: 0671101**

Remedial Mathematics

Time: 3 Hours   **Max. Marks: 75**

Note: Attempt six questions in all. Q. No. 1 is compulsory.

1. Answer any five of the following (limit your answer in 50 words).
                                                              (3x5=15)

  a) Solve:
      $x^{2/3} + x^{1/3} - 2 = 0$

  b) if $A = \begin{vmatrix} 1 & -3 & 2 \\ 2 & 0 & 2 \end{vmatrix}$ and $B = \begin{vmatrix} 2 & -1 & -1 \\ 1 & 0 & -1 \end{vmatrix}$,
      then find the matrix C such that A+B+C is a Zero matrix
.

  c) Find the mean from the data:

Marks	No. of students	Marks	No of Students
Below 10	5	Below 60	60
Below 20	9	Below 70	70
Below 30	17	Below 80	78
Below 40	29	Below 90	83
Below 50	45	Below 100	85

  d) The scores of a cricket player are
      38, 70, 48, 34, 42, 55, 63, 46, 54, 54
      find the standard deviation.
  e) Define correlation & standard error of means.
  f) Evaluate:
      Cos 1050° + tan(-1575°).
  g) Find the value of K in order that the points (K,1), (5,5), (10,7) may
      be collinear.
  h) If $y = \sin x + \tan x \cot x + ex + \log ax$
      Find   dy/dx

2.
  a) Solve the equation: (2x6 =12)
      $(x + 1/x)2 - 2(x - 1/x) - 19 = 0$
  b) Solve by Cramer's rule:
      $x + y + z + 1 = 0$
      $x + 2y + 3z + 4 = 0$
      $x + 3y + 4z + 6 = 0$
3.
  a) Solve with the help of matrices,   (6)
      the simultaneous equations:
      $x + 2y + 3z = 1$; $3x - y + z = 2$ and $4x + 2y + z = 3$
  b) Find mean by shortcut step deviation for the following data: (6)

Class:	0-10	10-20	20-30	30-40	40-50
Frequency:	07	08	20	10	05

4.
  a) Calculate mode of the following series: (6)

Class:	0-10	10-20	20-30	30-40	40-50
No of students:	14	23	27	21	15

  b) Calculate standard deviation for the data: (6)

Class	6	7	8	9	10	11	12
Frequency	3	6	9	13	8	5	4

5.
  a) Find x from the equation: (6)
      $\csc(90° + \Phi) + x \cos\Phi.\cot(90° + \Phi) = \sin(90° + \Phi)$
  b) The point (x,y) is equidistant from the points (a+b,b-a) and
      (a-b,a+b), prove that bx = ay.   (6)
6.
  a) Define straight line and find the equation of a straight line which
      passes through (22,-6) and intercept on x-axis exceeds the intercept
      on y-axis by 5.   (6)
  b) Find the equation of the line joining the points (3, -1) and (2,3). Also
      find the equation of the other line which is perpendicular to this line
      and passing through the point (5,2).   (6)

B.Pharm Ist SEMESTER EXAMINATION 2008-09

Subject Code:BPH102   **Paper ID:0671103**

Pharmaceutical Analysis-I

Time: 3 Hours   **Max. Marks: 75**

Note: Attempt six questions in all. Q. No. 1 is compulsory.

1. Answer any five of the following (limit your answer in 50 words).

    (3x5=15)

    a) Define precision and accuracy.
    b) Define molarity and normality.
    c) What are primary standards? Give two examples?
    d) Give three examples of acid base indicators.
    e) Write a note on common iron effect.
    f) Define redox indicators. Give examples.
    g) How will you calculate equivalent weight in case of redox titrations?
    h) Define solubility product. Give KSp values of AgCl and AgBr.

2. Attempt any three.   (3x4=12)
    a) Classify different techniques used in analysis.
    b) Explain theory of acid base indicators with examples.
    c) Explain iodimetric titrations with examples.
    d) Write a note on indicators used in precipitation titrations.

3. Attempt any three.   (3x4=12)
    a) Discuss Henderson-Hasselbach equation.
    b) What do you mean by neutralization curves? Explain neutralization curve of weak acid with strong base.
    c) What do you mean by iodometric titrations? Explain with example.
    d) How will you titrate 0.1M NaCl with 0.1M AgNO3 by Mohr's method.

7. Kdkfdf
    a) Evaluate the limit   (6)

    $$\lim_{x \to 0} \frac{\sin x}{x}$$

    b) Differentiate wrt x: (6)

    $$y = \frac{\sqrt{a+x} - \sqrt{a-x}}{\sqrt{a+x} + \sqrt{a-x}}$$

8. Evaluate the following integrals: (2x6=12)

    a) $\int \dfrac{1}{(x-1)(x+2)(x-3)} \, dx$

    b) $\int x^2 e^x \, dx$

4. Attempt any three. (3x4=12)
   a) How will you prepare 1000ml each of the following solutions?
      i) 0.1N HCl
      ii) 0.1N NaOH
      iii) 0.1N H2SO4
   b) Write a note on hydrolysis of salts.
   c) What do you mean by mixed indicators? Give suitable examples.
   d) Explain any one assay method involving use of ceric sulphate.

5. Attempt any Three. (3x4=12)
   a) Buffer solutions
   b) Ionic product of water
   c) Potassium iodate titrations
   d) Effect of temperature upon solubility of precipitates

6. Attempt any two. (2x6=12)
   a) How will you calculate normality of KMnO4 in strong acidic condtions?

   Explain standardization of 0.1N KMnO4 solution.

   b) Explain the role of Quality Control Department in pharmaceutical industry.
   c) Explain titration of 0.1M NaCl with 0.1M AgNO3 by Volhard method.

7. Attempt any Two. (2x6=12)
   a) What are different methods of expressing concentrations? Explain.
   b) How will you standardize following solutions?
      i) 0.1N Iodine solution
      ii) 0.1N ceric sulphate solution
   c) Explain Gay Lussac and Fajan's method

8. Attempt any Two. (2x6=12)
   a) What do you mean by acid error and alkaline error? Explain with respect to phenophthelein and methyl orange.
   b) What is Nernst equation? Give its derivation.
   c) Explain titrations involving use of Sodium thiosulphate.

B.Pharm Ist SEMESTER EXAMINATION 2008-09

Subject Code: BPH103   Paper ID: 0101104

Pharmaceutical Chemistry-I

Time: 3 Hours   Max. Marks: 75

Note: Attempt six questions in all. Q. No. 1 is compulsory.

1. Answer any five of the following (limit your answer in 50 words).
   (3x5=15)
   a) Citric acid is added in limit test of Iron. Why?
   b) Define antacids. Classify with examples.
   c) Give identification test for Zinc Sulphate.
   d) What do you mean by decay constant?
   e) Define inhalants. Give two examples.
   f) Compare Light and Heavy Magnesium carbonate.
   g) Define Intracellular and Extracellular fluids.
   h) Define Antidote. Give two examples.

2. Attempt any Three. (3x4=12)
   a) Write a note on combination antacids.
   b) What are the major physiological ions? Discuss any one in detail.
   c) Give the method of preparation and uses of boric acid and nitrous oxide.
   d) Write a note on pharmaceutically acceptable glass.

3. Attempt any Three. (3x4=12)
   a) Discuss limit test for chlorides.
   b) Give method of preparation and uses of Ammonium chloride.
   c) Give method of preparation and uses of Sodium metabisulphite.
   d) Discuss role of fluorides in dental care.

4. Attempt any Three. (3x4=12)
   a) Give the method of preparation of Sodium chloride and Calcium gluconate.
   b) Write a note on electrolytes used for replacement therapy.

c) Write a note on adsorbents and protectives.\
d) Write a note on pharmaceutical buffers.

5. Attempt any Two.   (2x6=12)
   a) What are Hematinics? Explain the role of iron in body.
   b) Discuss the importance of essential and trace elements in Pharmacy.
   c) Write a note on measurement of radioactivity.

6. Attempt any Two.   (2x6=12)
   a) What are radiophrmaceuticals? Discuss any three clinical applications.
   b) Explain the terms co-ordination and complexation.
   c) Discuss water for injection and sterile water for injection.

7. Attempt any Two.   (2x6=12)
   a) What are the sources of impurities in pharmaceutical substances? Illustrate your answer giving suitable examples.
   b) Discuss limit test for arsenic.
   c) Discuss physiological acid base balance.

8. Attempt any Two.   (2x6=12)
   a) Discuss various hazards and precautions to be taken in handling of radiopharmaceuticals.
   b) Explain preparation and uses of following
      i)   Dried aluminium hydroxide gel
      ii) Potassium permanganate
   c) Discuss ORS therapy.

B.Pharm Ist SEMESTER EXAMINATION 2008-09

Subject Code: BPH104   **Paper ID: 0671105**

Pharmaceutics (G. Pharmacy)

Time: 3 Hours   **Max. Marks: 75**

Note: Attempt six questions in all. Q. No. 1 is compulsory.

1. Answer any five of the following (limit your answer in 50 words).
                                                            (3x5=15)
   a) The fist edition of USP was published in the year……………
   b) Differentiate between solvents & cosolvents.
   c) Write the mechanisms of size-reduction.
   d) Bell mill works on the principle of …. and ……
   e) Define proof spirit.
   f) Convert 90% v/v of alcohol into Proof Spirit.
   g) Define percolation.
   h) Write young's formula for calculation of children dose.

2. Write briefly the history of Indian Pharmacopoeia.   (12)

3. Classify preservatives and explain their role in pharmacy. (12)

4. Explain the factors affecting size reduction. Describe the construction and working of a ball mill. (12)

5. Define Posology. Describe various formulae used for the calculation of pediatric dose. (12)

6. What is percolation? Describe various percolation methods of drug extraction. (12)

7. Write notes on any two: (6+6)
   a) Solid Liquid Mixing.
   b) Theory of Syrups.

c) Enlarging and reducing recipes.

8.
   a) Describe a method for the preparation of a Lotion.   (6)
   b) Explain maceration technique of drug extraction.   (6)

Note: Attempt six questions in all. Q. No. 1 is compulsory.

1. Answer any five of the following (limit your answer in 50 words).
                                               (3x5=15)

   a) Write two functions of mitochondria.
   b) Name bones of skull.
   c) Define physiology.
   d) Give important properties of skeletal muscle.
   e) What do you understand by erythropoesis.
   f) Explain composition of blood.
   g) Name two disease causing agents.
   h) How spread of disease can be stopped? Discuss two ways.

2. Describe functions and structure of connective tissue in detail.   (12)

3. Discuss composition of human skeleton with a neat diagram.   (12)

4. Write types of movements of joints with suitable diagram.   (12)

5. Give differences in smooth and skeletal muscle. Describe process of neurotransmission.   (12)

6. Explain importance of blood groups. Write a note on Rh factor.   (12)

7. Write note on following: (6+6)
   a) Transport process through cell membrane.
   b) Functions of cell.

8. Give note on following disease.   (6+6)
   a) HIV
   b) AIDS

B.Pharm Ist SEMESTER EXAMINATION 2008-09

Subject Code: BPH106   **Paper ID: 0671107**

Professional Communication

Time: 3 Hours   **Max. Marks: 75**

Note: Attempt six questions in all. Q. No. 1 is compulsory.

1. Attempt any five of the following (limit your answer in 50 words).
                                                                        (3x5=15)

   a) Scanning & Swimming.
   b) Voice Modulation.
   c) Role of Presentation in Profession.
   d) Parts of Speech.
   e) Role of empathy in Communication
   f) Significance of job enrichment and job enlargement in Motivation.
   g) Fill in the blanks with suitable articles:
      i)   He returned after ……. hour.
      ii) You are …….fool to say that.
      iii) Let us discuss…….. matter seriously.
   h) Pick out the verbs in the following sentences and name their tenses:
      i)   The river flows under the bridge.
      ii) I shall answer the letter tonight.
      iii) It has been raining all night.

2. Define communication as a process. Explain various elements of communization process specifically highlighting the importance of feedback.   (12)

3. Define group decision-making. Under what circumstance it is superior to individual decision making? Also state briefly at least three group decision making techniques.   (3+6+3)

4.
   a) Convert the following sentences from passive to active voice.   (6)
      i)   by whom was this done?
      ii) The wounded man was being helped by some boys
      iii) The wall is being built by the mason.
      iv) The work will be finished by him in a fortnight.
      v)   Why was such a letter written by your brother?
      vi) The gate was opened by the peon.
   b) Fill in the blank with correct prepositions.   (6)
      i)   He is working …. his desk.
      ii) He is ……opinion that we should not go
      iii) He died …… Typhoid.
      iv) She is the leader …….. the dacoits.
      v)   He agrees ……. me on that question.
      vi) I am not envious ……… his success.

5. Define the term 'Personality'. Explain major factors in shaping the personality of an individual   (4+8)

6. Write a letter approximately in 200 words to the Municipal Commissioner of Mumbai for early resolution of fastly deteriorating and pathetic sanitation condition of your locality. Please sign yourself as Ajit Gokhale of 105, Mulund East, Mumbai-18.   (12)

7. Explain the relevance of eye contact in communication with small and large groups. Support your answer with appropriate eye contact styles.
                                                                        (12)

8. Describe the tips to make a presentation effective.   (12)

B.Pharm II SEMESTER EXAMINATION 2008-09

Subject Code: BPH201   **Paper ID: 0672101**

Pharmaceutical Physical Chemistry

Time: 3 Hours   **Max. Marks: 75**

Note: Attempt six questions in all. Q. No. 1 is compulsory.

1. Answer any five of the following (limit your answer in 50 words).
                                                                  3x5=15)
   a) Explain the surface tension.
   b) Describe the first law of thermodynamics.
   c) Write short notes on chemical adsorption.
   d) Explain the law of electrolysis.
   e) Write notes on first and second order reaction.
   f) What is degree of freedom?
   g) Discuss the degree of Ionization.
   h) Write notes on Refractive index.

2.
   a) Discuss all properties of liquid with example.   (8)
   b) Explain the theory of Phase Rule?   (4)

3.
   a) Explain crystal diffraction with examples.   (6)
   b) Write notes on colligative properties.   (6)

4.
   a) Explain the Hess Law of constant summation.   (8)
   b) Define and elaborate the heat of reaction and heat of solution.   (4)

5. Define the Langmuir theory of adsorption in detail.   (12)

6. Explain the Debye Huckle theory and Give its measurement. (12)

7. Discuss the Faraday's Laws of Electrolysis in detail?   (12)

8. Write notes on: (6+6)
   a) Joule - Thomson's effect
   b) Gibbs adsorption isotherm

B.Pharm II SEMESTER EXAMINATION 2008-09

Subject Code: BPH202   **Paper ID: 0672102**

Pharmaceutical Organic Chemistry-I

Time: 3 Hours   **Max. Marks: 75**

Note: Attempt six questions in all. Q. No. 1 is compulsory.

1. Answer any five of the following (limit your answer in 50 words).
                                                          (3x5=15)
   a) What do you mean by resonance? Illustrate your answer with suitable examples.
   b) Explain the terms D,L and d,l.
   c) Differentiate 1°, 2° and 3° amines.
   d) Discuss the formation of carbanions.
   e) Differentiate between geometric and optical isomerism.
   f) Write a note on Aldol condensation.
   g) Give two methods of preparation for oxalic acid & succinic acid.
   h) What is "Markonikov's rule"?

2. Explain atomic orbitals, molecular orbital and hybrid orbital. Explain why sigma bonds are less reactive than pie(π) bonds.   (12)

3. Describe methods used for resolving racemic mixtures into optically active forms.   (12)

4. Give the method of preparation and synthetic applications of Grignard reagents.   (12)

5. Discuss the formation of carbocations and reactions involving them. Illustrate your answer with suitable examples.   (12)

6. Explain malonic ester synthesis of carboxylic acid and give two method of preparation for tartaric and citric acid.   (12)

7. Differentiate 1°, 2° and 3° Alcohol and give general method of preparation of Alcohol.   (12)

8. Give general method of preparation and important reactions of Arcnes.   (12)

B.Pharm II SEMESTER EXAMINATION 2008-09

Subject Code: BPH203   **Paper ID: 0672103**

Human Anatomy, Physiology and Pathophisiology-II

Time: 3 Hours   **Max. Marks: 75**

Note: Attempt six questions in all. Q. No. 1 is compulsory.

1. Answer any five of the following (limit your answer in 50 words).
(3x5=15)
   a) What are the effects of sympathetic nerve stimulation particularly on salivary glands?
   b) Define cone cells and give their functions.
   c) Mention causative factors and different types of tuberculosis.
   d) Write the main functions of spleen.
   e) Give composition of lymph.
   f) Write functions of spinal cord.
   g) What is blind spot? Mention its functions.
   h) What is reflex action?

2. What is Rhodopsin? Elaborate the "Physiology of vision" both in the case of dark and bright light.   (12)

3. Brief outline the causative agents and modes of transmission and prevention of malaria.   (12)

4. Define family planning. Discuss the various contraceptive methods for women.   (12)

5. Discuss structure and functions of retina with the help of proper diagram. Give an idea about "visual pathway".   (12)

6. Write in details about neurohumoral transmission through synapses in brain with the help of proper diagram.   (12)

7. Describe the formation and circulation of lymph in lymphatic vessel.
(12)

8. Write short note any three of the following: (4x3=12)
   a) AIDS
   b) MTP
   c) Syphilis
   d) Tetanus

B.Pharm II SEMESTER EXAMINATION 2008-09

Subject Code: BPH204   **Paper ID: 0672104**

Computer Fundamental & Programming

Time: 3 Hours   **Max. Marks: 75**

Note: Attempt six questions in all. Q. No. 1 is compulsory.

1. Answer any five of the following (limit your answer in 50 words).
                                                        (3x5=15)
   i)   What do you mean by Computer Organization? Name and explain all functional units of a computer system.
   ii) Differentiate between Wide Area Network and Local Area Network.
   iii) What do you understand by a program? Write down the steps for planning to write a successful program.
   iv) What are basic flowcharting symbols? What function does each represent?
   v)   Differentiate between the following wih suitable examples:
        i) Break and Continue Statements
        j) printf( ) and scanf( ) functions.
   vi) What is a Database? Discuss the various operations that can be performed in a database.
   vii) What is MS-Office and why is it used? Discuss any three important features of MS-Word.
   viii)   What do you understand by www in reference to internet? Discuss the features of internet in brief?

2. What is the function of the storage unit of a computer system? How many types of storage are there in each storage unit? Justify the need of each storage?   (12)

3. What do you understand by hardware and software? Define system software and application software.   (12)

4. What is the difference between Algorithm and a Program? Draw a flowchart to print sum of first ten even numbers.   (12)

5. Define the following with example in 'C' language: (12)
   a) Keyword
   b) Unary Operator
   c) Break Statement
   d) Double Constant

6.
   a) Give the general format of Input and Output statements in 'C'. Give example for each.   (6)
   b) Write a 'C' program to print all Fibonacci numbers less than 50. (Hint: 0, 1, 1, 2, 3, 5, 8, 13……..is Fibonacci series)   (6)

7.
   a) How do you create a table in MS-Access?   (6)
   b) Discuss the following with reference to MS-Access: (6)
      i)   MDB files
      ii) Sorting of records
      iii) Insertion of records in table
      iv) Primary key

8. Explain the various application of computer in Pharmaceutical and Clinical studies.   (12)

B.Pharm II SEMESTER EXAMINATION 2008-09

Subject Code: BPH205   **Paper ID: 0672105**

Advance Mathematics

Time: 3 Hours   **Max. Marks: 75**

Note: Attempt six questions in all. Q. No. 1 is compulsory.

1. Answer any five of the following (limit your answer in 50 words).
                                                         (3x5=15)

   a) Solve: $(dy/dx) = e^{x-y} + x^2 e^{-y}$.
   b) Solve: $\cos^2 x (dy/dx) + y = \tan x$
   c) What are the disadvantages of systematic sampling?
   d) Solve the differential equation.
      $(d^2y/dx^2) - 3(dy/dx) - 4y = 0$
   e) Solve the differential equation
      $(D^2 - 3D + 2)y = e^{2x}$
   f) What are the various method used for representing a frequency distribution graphically.
   g) The first four moments of a distribution about x = 2 are 1,2.5, 5.5, and 16. Calculate the four moments about mean.
   h) Write down the first four moments of Poisson's distribution i.e. H1, H2, H3 and H4.

2. Solve: (12)

   $$3 \frac{dy}{dx} + \frac{2}{x+1} y = \frac{x^3}{y^2}$$

3. Solve $(x^2 - 4xy - 2y^2)dx + (y^2 - 4xy - 2x^2)dy = 0$ (12)

4. Define the following term as used in statistics.   (6+6)
   a) Population and Sample
   b) Finite and infinite population

5. Solve the differential equation.   (12)
   $(D^2 - 1)y = e^x \sin 2x$

6. Solve the simultaneous differential equation.   (12)
   $(dx/dt) + 2(dy/dt) - 2x + 3y = 3e^t$
   $3(dx/dt) + (dy/dt) + 2x + y = 4e^{2t}$

7. Determine the A.M and median for the following distribution.   (12)

Income group	0-100	100-200	200-300	300-400	400-500	500-600
No. of persons	5	10	18	30	20	18

8. Five coins are tossed 3,200 times; find the expected frequencies of the distributions of heads and tails and tabulate the result.   (12)

B.Pharm III SEMESTER EXAMINATION 2009-10

Subject Code: BPH301   Paper ID: 0673101

Pharmaceutics II (Unit Operation-I)

Time: 3 Hours   Max. Marks: 75

Note: Attempt six questions in all. Q. No. 1 is compulsory.

1. Define any five of the following terms (limit your answer in 50 words). (3x5=15)
   a) Reynold's Number.
   b) Water for injection.
   c) Crystallization.
   d) Adiabatic saturation temperature.
   e) Absolute Humidity.
   f) Filter Aids.
   g) Filter Media.
   h) Nucleation.

2. Give the diagram and working principle of orifice meter. Discuss fluid heads. (12)

3. What is super-saturation theory? Give its limitations. (12)

4. What is the significance of humidity measurement in Pharmacy? (12)

5. Discuss various factors affecting rate of filtration. (12)

6. Give diagram, principle, working and application of Swenson walker crystallizer. (12)

7. What are different mechanisms involved in filtration. Give example of each. (12)

8. Discuss the principles of air-conditioning. (12)

B.Pharm III SEMESTER EXAMINATION 2009-10

Subject Code: BPH302   Paper ID: 0673102

Pharmaceutical Jurisprudence and Ethics

Time: 3 Hours   Max. Marks: 75

Note: Attempt six questions in all. Q. No. 1 is compulsory.

1. Answer any five of the following (limit your answer in 50 words). (3x5=15)
   a) Define the term "coca leaf" and "opium".
   b) Differentiate between misbranded drugs and spurious drugs.
   c) Write a note on Pharmacist oath.
   d) Write a note on restricted licenses.
   e) Define "drugs" and "loan license".
   f) What do you mean by central register?
   g) Write a note on offences and penalties in the contravention of the provisions of Drugs and Magic Remedies Act.
   h) What do you mean by schedule G and schedule J of Drugs and Cosmetics Act?

2. Describe the constitution of Pharmacy council of India. What are education regulations and how are they implemented by PCI? (12)

3. Describe the constitution and functions of (i) Drug Technical Advisory Board (ii) Drug Consultative Committee. (12)

4. What are the qualifications for appointment as a drug inspector? Explain their duties and procedures. (12)

5. Define narcotic drugs. Briefly explain the procedure for entry, seizure and arrest under the act and name the authorities which are empowered to do so. (12)

6. Discuss the provisions relating to manufacture of Ayurvedic and Homeopathic preparations containing alcohol. Can an Ayurvedic practitioner manufacture alcoholic preparations for his own patients?

(12)

7. Discuss the provisions of Medical Termination of Pregnancy act 1971 relating to the approval of a place for the termination of pregnancy.

(12)

8. Discuss the essential requirements of building, space, equipments outlined in schedule M for the manufacture of drugs. (12)

B.Pharm III SEMESTER EXAMINATION 2009-10

Subject Code: BPH303   Paper ID: 0673103

Pharmacognosy - I

Time: 3 Hours   Max. Marks: 75

Note: Attempt six questions in all. Q. No. 1 is compulsory.

1. Answer any five of the following (limit your answer in 50 words).

(3x5=15)

   a) Define the term "Pharmacognosy".
   b) Enumerate the parameters used for the quantitative Microscopy of leafy drugs.
   c) What do you mean by the term adulteration?
   d) Write the main functions of Auxins, Cytokinins and Ethylene Oxide.
   e) Give an account of future prospects of plant tissue culture.
   f) What is the source of Honey?
   g) Give a short note on Polyploidy.
   h) Discuss the principle of taxonomical classification of drugs.

2. Define and discuss various resources of crude drugs. (12)

3. Discuss in detail chemical classification of drugs. (12)

4. Write a short note on- (4x3=12)
   a) Mutation
   b) Hybridization
   c) Gibberelic acid

5. What do you mean by evaluation of crude drugs? Discuss various methods of their evaluation used in Pharmaceutical industry. (12)

6. Give a brief note on any three of the following: (4x3=12)
   a) Storage of crude drugs
   b) Collection of crude drugs

c) Lycopodium spores method
d) Historical development of pharmacognosy

7. Discuss the systematic Pharmacognosy of -   (3x4=12)
   a) Starch
   b) Isabgol
   c) Acacia
   d) Agar

8. Write the source, major constituents and uses of -   (3x4=12)
   a) Cod liver oil
   b) Castor oil
   c) Bees wax
   d) Wool fat

B.Pharm III SEMESTER EXAMINATION 2009-10

Subject Code: BPH304   **Paper ID: 0673104**

Pharmaceutical Organic Chemistry-II

Time: 3 Hours   **Max. Marks: 75**
                        Max Marks: 75

Note: Attempt six questions in all. Q. No. 1 is compulsory.

1. Answer any five of the following (limit your answer in 50 words).
                                                              (3x5=15)
   a) Define cycloaddition reaction.
   b) On basis of which two chemical properties Malonic ester is used as
      a synthetic reagent.
   c) Draw structure of Adenine.
   d) Define Fischer's indole synthesis.
   e) Define Michael condensation.
   f) Define oppneaur oxidation.
   g) Classify amino acids with examples.
   h) Name any three α,β-unsaturated carbonyl compounds.

2. Write general methods for synthesis of amino acids with one example in
   each method. Write various reactions of amino acids due to carboxyl
   group.   (12)

3. Define Bechmann rearrangement and Cannizaro reaction along with
   their mechanism.   (12)

4. Write synthetic applications of Meerwin Pondorff Verley reduction and
   Oppeneaur oxidation with examples.   (12)

5. Write methods of preparation and reactions of Acraldehyde. Write
   synthetic applications of Acetoacetic ester.   (12)

6. Classify proteins with example. Describe various identification tests for proteins. (12)

7. Write definition, mechanism and applications of Mannich reaction. (12)

8. Write methods of preparation and properties of Pyrazole and Indole. (12)

B.Pharm III SEMESTER EXAMINATION 2009-10

Subject Code: BPH305   **Paper ID: 0673105**

Community Pharmacy

Time: 3 Hours   **Max. Marks: 75**

Note: Attempt six questions in all. Q. No. 1 is compulsory.

1. Answer any five of the following (limit your answer in 50 words). (3x5=15)
   a) Define and classify Drug Interaction.
   b) What are the legal requirements for opening a new Community Pharmacy?
   c) Write a note on various methods of coding of Pharmaceutical Products.
   d) Give the ABC method of inventory control.
   e) Give the VED method of inventory control.
   f) Enlist key communication skills.
   g) Define health as per W.H.O.
   h) Define Rational Drug Therapy.

2. Explain various roles and responsibilities of a Community Pharmacist. (12)

3. What are the various factors that need to be considered for the selection of site for opening a new Community Pharmacy? (12)

4. Explain the various parts of a Prescription (12)

5. Explain the principles of Pharmaceutical Care. (12)

6. Explain the various factors affecting patient compliance. (12)

7. Define Community Pharmacy and explain it's scope in India. (12)

8. Discuss the role of Community Pharmacist in prevention of communicable diseases. (12)

B.Pharm III SEMESTER EXAMINATION 2009-10

Subject Code: BPH306   **Paper ID: 0673106**

Human Anatomy Physiology and Pathophysiology III

Time: 3 Hours   **Max. Marks: 75**

Note: Attempt six questions in all. Q. No. 1 is compulsory.

1. Answer any five of the following (limit your answer in 50 words).
                                        (3x5=15)
    a) Write the composition and function of gastric juice.
    b) Describe various accessory organs for digestion.
    c) Discuss the function of large intestine.
    d) Explain peptic ulcer and give the etiology of peptic ulcer.
    e) What is Ulcerative Colitis? Discuss its clinical features.
    f) Describe the location with a neat and labeled diagram of stomach.
    g) Describe the structure of nephron.
    h) Nucleation.

2. Describe the location, anatomy and function of liver and pancreas   (12)

3. Discuss the various phases of gastric secretion and factors affecting gastric secretion.   (12)

4. Write the causative agent, mode of transmission and prevention of any two of the following: (6+6)
    a) Hepatitis
    b) Typhoid
    c) Amoebiasis

5. Write notes on any two of the following: (6+6)
    a) Structure and functions of kidney.
    b) Glomerulonephritis.
    c) Physiology of urine formation

6. Write notes on any two of the following: (6+6)
    a) Describe the steps involved in spermatogenesis.
    b) Discuss the hormonal regulation of spermatogenesis and abnormal spermatogenesis.

7. Discuss the causative agent, mode of transmission and prevention of AIDS.   (12)

8. Discuss the pathophysiology of syphilis.   (12)

B.Pharm IV SEMESTER EXAMINATION 2010-11

Course Code: BPH401   **Paper ID: 0674101**

Pharmaceutics

Time: 3 Hours   **Max. Marks: 75**

Note: Attempt six questions in all. Q. No. 1 is compulsory.

1. Answer any five of the following (limit your answer in 50 words). (3x5=15)
   a) Give classification of dryers.
   b) What are process variables?
   c) Explain dimensional analysis.
   d) Discuss Raoult's law.
   e) Define stoichiometric coeffiecient.
   f) Differentiate between evaporation and other heat processes.
   g) Briefly explain mechanism of drying.
   h) Classify evaporators.

2.
   a) Describe relative volatility.   (4)
   b) Discuss principle, application and equipment of steam distillation.
                                                                            (8)

3.
   a) Describe the factors affecting evaporation.   (4)
   b) Write principle, construction and working of climbing film evaporator.   (8)

4.
   a) Discuss general equipment for distillation in detail.   (8)
   b) What is simple distillation?   (4)

5. Discuss automated process control in detail.   (12)

6.
   a) What are unit operations and unit processes?   (8)
   b) Discuss material balances.   (4)

7.
   a) Explain construction and working of vacuum dryer.   (6)
   b) Discuss construction and working of freeze dryer.   (6)

8. Discuss principle, construction and working of horizontal and vertical tube evaporators.   (12)

B.Pharm IV SEMESTER EXAMINATION 2010-11

Course Code: BPH402   **Paper ID: 0674102**

Pharmaceutical Microbiology

Time: 3 Hours   **Max. Marks: 75**

Note: Attempt six questions in all. Q. No. 1 is compulsory.

1. Answer any five of the following (limit your answer in 50 words). (3x5=15)
   a) Write a note on scope of microbiology.
   b) Draw a neat, labelled diagram of bacterial cell.
   c) Describe bacteriophage.
   d) Write a note on viruses.
   e) Write a note on acid fast staining
   f) Distinguish between disinfectants and antiseptics
   g) Write a note on any one culture media used for sterility testing.
   h) Write a note on aquatic microbiology.

2. Give the differnece between eukaryotic and prokaryotic cells.   (12)

3. Describe the plate pour method for isolation of bacteria of pure culture.   (12)

4. Differentiate between gram positive and gram negative bacteria.   (12)

5. Explain the advantages, limitations and working principle of electron microscopy.   (12)

6. What are the factors affecting rate of antimicrobial action?   (12)

7. Define sterilization. Explain autoclave and radiation sterilization.   (12)

8. Explain microbial assay of vitamin B12.   (12)

B.Pharm IV SEMESTER EXAMINATION 2010-11

Course Code: BPH403   **Paper ID: 0674102**

Pharmacognosy - II

Time: 3 Hours   **Max. Marks: 75**

Note: Attempt six questions in all. Q. No. 1 is compulsory.

1. Answer any five of the following (limit your answer in 50 words). (3x5=15)
   a) Why Indian podophyllum is superior then American podophyllum?
   b) What are the active constituents of capsicum?
   c) Give medicinal uses and main phytoconstituents of black pepper.
   d) Write classification of alkaloids?
   e) Enumerate biological source and uses of wool.
   f) How is Bentonite prepared? Write its industrial application.
   g) Give biological sources and uses of black catechu.
   h) Mention identification tests of benzoin.

2.
   a) Write commercial products and main phytoconstituents of cannabis.   (6)

   b) Give biological source, chemical constituents and uses of Turmeric or Ginger.   (6)

3.
   a) How will you differentiate between balsam of totu and balsam of peru? Write their biological sources and medicinal uses.   (6)
   b) Discuss biological sources and chemical constituents of Asfoetida or shellac.   (6)

4.
   a) Define volatile oils. How is a volatile oil separated? Give different chemical compounds present in volatile oils.   (6)

b) Explain biological sources, chemical constituents and uses of any Two of the following: (3+3)
   i) Mentha
   j) Cinnamon
   k) Caraway

5.
   a) Draw macroscopic diagrams of fennel and clove? Write their biological sources, chemical constituents and medicinal uses? (6)
   b) Give biological source, chemical and uses of Dill and cardamom. (6)

6.
   a) Which active constituents are present in herbal drugs? Discuss chemical nature of three potent phytoconstituents. (6)
   b) Give general properties, isolation and chemical tests of glycosides or alkaloids. (6)

7.
   a) Write biological source, preparation and uses of cotton or glass wool. (6)
   b) How is silk prepared? Write its chemical nature and uses. (6)

8. Dfdf
   a) What are tannins? Write biological source, chemical constituents and identification test of a tannin containing drug. (6)
   b) Write preparation, chemical nature and uses of any two of the following: (3+3)
      i) Gelatin
      ii) Kaolin
      iii) Talc

B.Pharm IV SEMESTER EXAMINATION 2010-11

Course Code: BPH404   **Paper ID: 0674101**

Pharmaceutical Analysis - II

Time: 3 Hours   **Max. Marks: 75**

Note: Attempt six questions in all. Q. No. 1 is compulsory.

1. Answer any five of the following (limit your answer in 50 words). (3x5=15)
   a) Define protogenic and protophilic solvents.
   b) Define leveling and differentiating effects.
   c) Give primary standards used for standardization of EDTA solution.
   d) Define chelating agents and sequestering agents.
   e) Define metallochrome indicators.
   f) Write a note on kjeldahl method.
   g) Define normal phase and reverse phase chromatography.
   h) Define retention time and retention volume.

2.
   a) How will you prepare and standardize 0.1N Perchloric acid solution. (4)
   b) What do you understand by EDTA titrations? Explain with at least one example. (4)
   c) Give applications of EDTA titrations. (4)

3.
   a) Write a note on titrants used in determination of weak acids in non aqueous titrimetry. (4)
   b) Write a note on determination of Calcium gluconate in complexometry titrations. (4)
   c) Write a note on determination of Sulfamethoxazole by Sodium nitrite titrations. (4)

4.
   a) Acetic anhydride is added in preparation of Perchloric acid solution. Why? (4)
   b) Magnesium sulphate solution is added in determination of Calcium gluconate injection in complexometry titrations. Why? (4)
   c) Write a note on adsorbents used in TLC. (4)

5.
   a) How will you determine Ephedrine Hydrochloride by non aqueous titrations? (4)
   b) Write a note on factors affecting stability constant value in complexometric titrations. (4)
   c) How will you estimate alcohol in galenicals? Explain. (4)

6.
   a) Write a note on indicators used in non aqueous titrations. (4)
   b) Explain masking and demasking with examples. (4)
   c) Write a note on Karl-Fischer reagent. (4)

7. dfdf
   a) Explain various types of EDTA titrations. (4)
   b) Write a note on determination of end point in diazotization titrations. (4)
   c) Write a note on sample application system in HPLC. (4)

8. Dfdf
   a) Give use of Mercuric acetate solution in non aqueous titrimetry (4)
   b) Write a note on assay of Aluminium Hydroxide gel. (4)
   c) Write a note on radioassays. (4)

B.Pharm IV SEMESTER EXAMINATION 2010-11

Course Code: BPH405   **Paper ID: 0674105**

Human Anatomy, Physiology and Pathophysiolgy-IV

Time: 3 Hours   **Max. Marks: 75**

Note: Attempt six questions in all. Q. No. 1 is compulsory.

1. Write short notes on any five of the following (limit your answer in 50 words). (3x5=15)
   a) Psychosis
   b) Myasthenia gravis
   c) Classification of Pneumonia
   d) Apoptosis
   e) O2 – Hb dissociation Curve
   f) All or None law
   g) Define necrosis with its type.
   h) Hyperplasia

2. Describe the whole physiology & anatomy of respiration including nerve supply. (12)

3. Dfdf
   a) Describe the functional anatomy of heart. (8)
   b) Write about pressure changes in left ventricle during cardiac cycle. (4)

4.
   a) What is cell injury. (2)
   b) Define gangrene and mention the differences between dry gangrene and wet gangrene. (10)

5.
   a) Define inflammation with causes. (2)
   b) What are the different types of inflammation? (5)

c) Describe vascular changes and chemical mediators of acute inflammation. (5)

6.
   a) Define Anaemia with its classification. (3)
   b) Describe the pathophysiology and treatment of Iron-deficiency anaemia. (9)

7. Define systemic hypertension with classification, etiology and its pathogenesis. (12)

8. Write definition, symptoms and pathogenesis of any four. (3x4=12)
   a) Arthiritis
   b) Gout
   c) AIDS
   d) Parkinson Disease
   e) Ashtma

Note: Attempt six questions in all. Q. No. 1 is compulsory.

1. Answer any five of the following (limit your answer in 50 words). (3x5=15)
   a) Define Active voice and Passive voice. Give two examples.
   b) What is concord? Give two examples.
   c) What do you understand by conditional sentence? Give two examples.
   d) What is the difference between inductive order and deductive order?
   e) What is chronological order?
   f) What are the basic requirements of a good paragraph?
   g) Fill in the blanks with must appropriate word:
      i) A sentence which contains the main idea of the paragraph is called………..
      ii) The word coherence literally means……….
      iii) The reversal of the inductive order is………..
   h) What do you understand by 'Précis'?

2. What is the significance of the 'Rocking Horse' in this story? (12)

3. What is the story, 'The Lament' about? (12)

4. Write a précis of the following passage and also give a suitable title: (12)

   Who is not afraid of heart attacks and stroke? Heart diseases account for a quarter of the total number of death each year, taking an estimated 12 million hives annually. Across the world, they kill more people than any other single disease. To add to the misery of many families, most people

are disabled for life. It is quite clearly established that cigarette smokers have a 70 percent greater chance of developing coronary heart disease than persona who don't smoke. Smoking is one of the important risk factors for such a heart attack. It reduces the amount of available oxygen in the blood, causing the heart to work harder. Carbon monoxide in cigarette smoke damages the vessel wall from inside, making it rough and therefore, ready for fatty deposits to lodge there. The cigarette's poisons also increase the heart beat. The degree of risk to the heart and circulatory system is related to the number of cigarettes smoked daily and for how many years. Moreover, the smoke's poisons cause the red blood cells to stick together, forming chumps that are unable to pass through the smallest blood vessels, again reducing the blood and oxygen supply.

5. Write a brief note on the reasons for poor comprehension.   (12)

6. Correct the following sentences: (2x6=12)
   a) They know to sell.
   b) Six times six are thirty six.
   c) She was prevented to marry you.
   d) I prefer creating our own programme than borrowing theirs.
   e) Each of them want to go.
   f) I and she are friends.

7. Write a note on the theme of J.B.S. Haldane's 'Science and Human Life'.   (12)

8. Write a paragraph on any one of the following topics (word lime 150):
                                                             (12)
   a) Man does not live by bread alone.
   b) Knowledge is power