(PHD 10110)

I Pharm. D DEGREE EXAMINATION,
AUGUST/SEPTEMBER 2016.

(Regular)

(Examination at the end of First Year of 6 Years Course)

Paper I — HUMAN ANATOMY AND PHYSIOLOGY

(Regulation 2010-11)

Time : Three hours Maximum : 70 marks

Answer any FIVE questions.

All questions carry equal marks.

1. Discuss about :
   (a) Structure of female reproductive system
   (b) Spermatogenesis and Oogenesis.

2. Explain about anatomy of ear. Physiology of hearing.

3. Write about the following :
   (a) Anterior pituitary hormones
   (b) Thyroid disorders.

4. Explain the anatomy and functions of cerebrum.

5. Discuss about regulation of blood pressure.

6. Discuss about mechanism of clotting Add note on thrombocytopenia.

7. Discuss about :
   (a) Lymphatic system
   (b) Exchange and transport of respiratory gases.

8. Discuss about :
   (a) Classification of tissues
   (b) Classification of joints.

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(Regular)

(Examination at the end of First Year of 6 Years Course)

Paper II — PHARMACEUTICS

(Regulation 2010-11)

Time : Three hours Maximum : 70 marks

Answer any FIVE questions.

All questions carry equal marks.

1. (a) What is a Pharmacopoeia? Give the salient features of Indian Pharmacopoeia in comparison with British Pharmacopoeia. (7)

(b) Define proof spirit. What is the proof strength of 95% v/v alcohol? (4)

(c) Calculate the quantity of 90% v/v alcohol required to make 500 ml of 60% v/v alcohol. (3)

2. (a) What is psology? Write about the calculation of children dose using different formula and mention their relative merits. (7)

(b) Explain the formulation of turpentine liniment. (7)

3. (a) Define the following and mention their importance: (6)

(i) Syrups

(ii) Gargles

(iii) Douches

(iv) Enemas.

(b) Write about the formulation additives used in the preparation of liquid orals. (8)

4. (a) Give the classification, advantages and disadvantages of suppository bases. Explain the method of preparation of suppositories. (9)

(b) Define displacement value. How do you dispense six suppositories each containing 120 mg of boric acid with cocoa butter as base using 1 g mould (displacement value of boric acid is 1.5) (5)

5. (a) What are the salient differences between maceration percolation and hot continuous percolation? Mention their advantages with suitable examples. (7)

(b) Describe the process of Soxhelet extraction with suitable example. (7)

6. Explain the formulation of the following :

(a) Surgical dressings (5)

(b) Insufflations (4)

(c) Sutures and Ligatures (5)

7. (a) Give the classification of suspending agents. Mention their advantages and give suitable examples. (7)

(b) Explain the methods for preparation of emulsions. (7)

8. (a) What is an incompatibility? Write about chemical and therapeutic incompatibilities with suitable examples. (9)

(b) Write about the dispensing of explosive and eutectic powders. (5)

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I Pharm. D (Regular) DEGREE EXAMINATION,
AUGUST/SEPTEMBER 2016.

(Examination at the end of First Year of Six years course)

Paper III — MEDICINAL BIOCHEMISTRY

(Regulation 2010-2011)

Time : Three hours Maximum : 70 marks

Answer any FIVE questions.

All questions carry equal marks.

1. Give an account of cell and its biochemical organization. (14)

2. Define and classify enzymes. Discuss the various factors affecting enzyme activity. (14)

3. Give an account of

   (a) Glycolysis

   (b) Gluconeogenesis (8 + 6)

4. (a) Define Lipids and explain β-oxidation of fatty acids with its energetics.

   (b) Write briefly on Atheroslerosis. (8 + 6)

5. Explain urea cycle in detail with its metabolic disorders. (14)

6. How do you carry out the following tests? (5+5+4)

   (a) Total cholesterol

   (b) Urine concentration test

   (c) Blood creatinine.

7. Write short notes on (7 + 7)

   (a) Radio Immuno Assay

   (b) D.N.A. repair mechanism.

8. Discuss the importance of biochemical role of (5 + 4 + 5)

   (a) Sodium

   (b) Potassium

   (c) Calcium.

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I Pharm. D. DEGREE EXAMINATION,
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(Regular)

(Examination at the end of First Year of Six Years Course)

Paper IV — PHARMACEUTICAL ORGANIC CHEMISTRY

(Regulation 2010–11)

Time : Three hours Maximum : 70 marks

Answer any FIVE questions.

All questions carry equal marks.

1. Explain the preparation, test for purity, assay and medicinal uses of (4 × 3.5)
   (a) Salicylic acids
   (b) Sodium laryl Sulphate
   (c) Vanillin
   (d) Benyl bencoate.

2. Explain the mechanism involved in (5 + 4 + 5)
   (a) Aldol condensation
   (b) Benzoin condensation
   (c) Reformatsky reaction.

3. (a) Enumerate the mechanism, relative reactivity and stability of free radical chain reactions of alkanes.
   (b) SN^2 reaction.

4. (a) Physical properties of organic substance.
   (b) Isomerism.

5. Explain Aromatic substitution and add a note on mechanism of nitrate, sulphonation, Halogenations and friedel craft alkylation.

6. Write a short note on : (5 + 4 + 5)
   (a) Alkyl halides
   (b) Carboxylic acids
   (c) Ketenes.

7. Explain about
   (a) E_2 and E_1 mechanism, and E_2 versus E_1.
   (b) Oxidation reduction reactions.

8. Give an account of (5 + 4 + 5)
   (a) Compare free radical substitution with free radical addition
   (b) Bayer strain theory
   (c) Reimer tiemans reaction.

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I Pharm D. DEGREE EXAMINATION,
AUGUST/SEPTEMBER 2016.

(Regular)

(Examination at the end of First year of 6 Years Course)

Paper V — PHARMACEUTICAL INORGANIC CHEMISTRY

(Regulation 2010-11)

Time : Three hours Maximum : 70 marks

Answer any FIVE of the following questions.

All questions carry equal marks.

1. Explain the principle and procedures involved in the limit test for sulphates and arsenic.

2. What are neutralization reaction and explain about indicator theories?

3. Write the method of preparation, test for purity and assay of any four antacids.

4. Explain about
   (a) Dental products
   (b) Radio Pharmaceuticals.

5. Write a note on Non Aqueous titration and add a note on solvents used in Non Aqueous titration.

6. Define accuracy and precession and explain about errors.

7. Write a short note on
   (a) Boric acid
   (b) Epsom salt
   (c) Potassium nitrate
   (d) Sodium acetate.

8. Give an Account of
   (a) Essential trace elements
   (b) Anti microbials.

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(PHD 106 A 10)

I Pharm. D (Regular) DEGREE EXAMINATION,
AUGUST/SEPTEMBER 2016.

(Examination at the end of First Year of 6 Years Course)

Paper VIA : REMEDIAL MATHEMATICS

(Regulation 2010–11)

Time : Three hours Maximum : 70 marks

Answer any FIVE questions.

All questions carry equal marks.

1. (a) Prove that

$$\begin{vmatrix} a-b-c & 2a & 2a \\ 2b & b-c-a & 2b \\ 2c & 2c & c-a-b \end{vmatrix} = (a+b+c)^3$$

(b) Solve the system of equations.

$x-3y+2z=8$, $3x+4y+z=5$,
$-4x+2y-9z=2$.

2. (a) Prove that $\cos\frac{\pi}{9}\cos\frac{2\pi}{9}\cos\frac{3\pi}{9}\cos\frac{4\pi}{9}=\frac{1}{16}$.

(b) In ΔABC, $\frac{a}{\cos A}=\frac{b}{\cos B}=\frac{c}{\cos C}$; If $b=2$ then find the area of the triangle.

3. (a) The equations of the perpendicular bisectors of the sides AB and AC of ΔABC are $x-y+5=0$ and $x+2y=0$ respectively. If $A=(1,-2)$ then find the equation of the line BC.

(b) If the line $3x-2y+6$ meets $X-$axis and $Y-$axis respectively at A and B, then find the equation of the circle with radius AB and centre at A.

4. (a) Find $\lim_{x\to 0}\frac{\cos 7x-\cos 9x}{\cos 3x-\cos 7x}$.

(b) If $y=2^{ax}$ and $\frac{dy}{dx}=\log 256$ at $x=1$, then find the value of a.

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

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

6. (a) Solve $x\cos x\frac{dy}{dx}+(x\sin x+\cos x)y=1$.

(b) Solve $\left(1+e^{x/y}\right)dx+e^{x/y}\left(1-\frac{x}{y}\right)dy=0$.

7. (a) Find the Laplace transform of $t\sin^2 3t$.

(b) Find the Laplace transform of $t\sinh at$.

(PHD106B10)

I PHARM. D DEGREE EXAMINATION,
AUGUST/SEPTEMBER 2016.

(Examination at the end of First year of
6 years course)

(Regular)

Paper VI B — REMEDIAL BIOLOGY

(Regulation 2010 – 11)

Time : Three hours Maximum : 70 marks

Answer any FIVE questions.

All questions carry equal marks.

1. Explain about the leaf modifications with examples.
2. Describe the salient features and economic importance of Leguminosae family?
3. Explain the mechanism of respiration in frogs.
4. Describe the reproductive system in frog.
5. Explain the various types of leaf modifications.
6. Explain about different types of fruits.
7. Explain the different types of inflorescence.
8. Describe the salient features of poisonous snakes in India.

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I Pharm. D/B.Pharmacy (II sem) DEGREE EXAMINATION, AUGUST/SEPTEMBER 2016.

(Regular)

(Examination at the end of First Year of 6 Years Course)

HUMAN VALUES AND PROFESSIONAL ETHICS

(Regulation 2012–2013)

Time : One and half hours Maximum : 50 marks

Answer ALL questions.

1. Give an account of your vision of a Universal human order.

Or

2. Write any two programs you can take up to establish harmony with nature.

3. "Existance is co-existance of mutually interacting units" – Explain.

Or

4. Discuss the human values which can be verified to be naturally acceptable.

5. Describe the ways of journey towards the holistic alternative.

Or

6. Discuss the management models in relation to holistic technologies.

7. Give an account of professional ethics in the light of Right understanding.

Or

8. How is ethical human conduct achieved?

9. Explain the difference between animal conciousness and human conciousness.

Or

10. Give an account of different levels of human living.

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