

(1102)

B.Pharmacy/Pharm. D DEGREE EXAMINATION,
JULY/AUGUST 2017.

(Regular)

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

HUMAN VALUES AND PROFESSIONAL ETHICS

(Regulation 2012-13)

Time : One and half hours Maximum : 50 marks

Answer ALL questions.

1. Examine the need and significance of understanding value education.

Or

2. What factors are responsible for ensuring continuous happiness and prosperity?

3. Suggest a suitable programme to fulfill basic human aspirations.

Or

4. What aspects are responsible for making harmony in the family?

5. "It is very difficult to understand the human being". Comment on the statement.

Or

6. Evaluate the importance of "Ethical Human Conduct".

7. What are universal human values? Give some examples.

Or

8. What do you understand by professional ethics? Explain briefly.

9. Discuss briefly about the need for vision for holistic technologies.

Or

10. Write a note on 'Journey towards the holistic alternative'.

(PHD10110)

I.Pharm. D (Regular) DEGREE EXAMINATION,
JULY/AUGUST 2017.

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

Paper I — HUMAN ANATOMY AND PHYSIOLOGY

(Regulation 2010-2011)

Time : Three hours

Maximum : 70 marks

Answer any FIVE questions.

All questions carry equal marks.

1. Explain about erythropoiesis. Discuss about types of anaemias.
2. Explain about cardiac cycle. Add a note on heart sounds.
3. Explain about :
 - (a) Mechanism and regulation of respiration
 - (b) Transport of respiratory gases.
4. Discuss about digestion of food in small intestine and disorders of GIT.

5. Enlist the cranial nerves and write its origin, innervation and functions.
6. Discuss about anatomy and functions of sympathetic and parasympathetic nervous system.
7. Explain about anatomy of eye. Physiology of vision.
8. Discuss about :
 - (a) Mechanism of muscle contraction
 - (b) Pregnancy and maintenance and parturition.

(PHD10210)

I Pharm.D DEGREE EXAMINATION,
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8. (a) What are emulsions? Briefly describe the methods of preparation of emulsions and give suitable examples for the emulsifying agents.

(7)

- (b) What are the essential features of sutures and ligatures? Explain the preparation of catgut.

(7)

(Regular)

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

Paper II — PHARMACEUTICS

(Regulation 2010-2011)

Time : Three hours

Maximum : 70 marks

Answer any FIVE questions.

All questions carry equal marks.

1. (a) What are the ideal requirements of suppository bases? What are the drawbacks of theobroma oil as suppository base and suggest suitable bases for overcoming these drawbacks. (10)

- (b) Dispense ten suppositories of bismuth subgallate using 1 g mould with theobroma oil as base? Displacement value of bismuth subgallate is 3. (4)

2. (a) Differentiate between maceration and percolation and explain the procedure for extraction of thermolabile active ingredient from a crude drug. (9)
- (b) What are enemas and mention their application? (5)

3. (a) What is a prescription? Write about the different parts of the prescription and how do you prevent the sources for errors in prescription. (8)
- (b) What is posology and mention its importance. Calculate the dose of a drug for 6 year old child if the adult dose of the drug is 240 mg. (6)

4. (a) Enumerate the various classes of incompatibilities with examples. (10)
- (b) How do you dispense the following prescription? (4)

Sodium salicylate 7.2 g
 Quinine sulphate 720 mg
 Dilute sulphuric acid 1.8 ml
 Water up to 180 ml
 Prepare a mixture.

5. (a) Give the differences between throat paints and gargles? Describe the procedure for preparation of throat paint with suitable example. (7)
- (b) Write about the recent edition of Indian Pharmacopoeia? (7)

6. Explain the preparation and dispensing of the following powders.

- (a) Dusting powders (7)
- (b) Insufflations. (7)

7. (a) What is proof spirit? What is the strength of 90% v/v alcohol in terms of proof spirit? (3)
- (b) What proportions of 10% and 2% of powders are to be mixed to make 100 grams of 8% powder? (3)

- (c) How will you dispense 5 hard gelatin capsules each containing 600 μ g of hyoscine hydrobromide? Minimum content for a capsule is 100 mg. (4)

- (d) Calculate the quantity of sodium chloride required to be added to 60 ml of 1% pilocarpine hydrochloride to make it isotonic. Sodium chloride equivalent of pilocarpine hydrochloride = 0.22. (4)

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1. Pharm. D DEGREE EXAMINATION,
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(Regular)

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

Paper III -- MEDICINAL BIOCHEMISTRY

(Regulation 2010 - 11)

Time : Three hours

Maximum : 70 marks

Answer any FIVE questions.

All questions carry equal marks.

1. Explain in detail about ATP and its biological significance. (14)
2. (a) Write a detailed note on coenzymes and their biochemical role.
(b) Write short note about enzyme action. (8+6)
3. Give an account of :
(a) TCA cycle
(b) Glycogenolysis. (8+6)

4. (a) What are Ketone bodies? Write in detail about Ketogenesis.
(b) Write briefly on Hyper Cholesterolmia. (8+6)
5. Write briefly on :
(a) Catabolism of Amino acids
(b) Production of Bile pigments. (7+7)
6. Write briefly on :
(a) Oxidative phosphorylation
(b) Water balance and Electrolyte distribution. (7+7)
7. Write short notes on :
(a) ELISA (Enzyme Linked Immuno Sorbent Assay)
(b) Semi conservative replication of double stranded DNA molecule. (7+7)
8. How do you carry out the following tests :
(a) HDL Cholesterol
(b) Serum bilirubin
(c) Urinary tract calculi. (5+5+4)

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Paper IV — PHARMACEUTICAL ORGANIC
CHEMISTRY

(Regulation 2010-2011)

Time : Three hours

Maximum : 70 marks

Answer any FIVE questions, all question carry equal marks.

1. Explain preparation, test for purity assay and medical use of the following (5+5+4)
 - (a) Aspirin
 - (b) Dimercaprol
 - (c) SLS.
2. Explain the (a) cannizzaro reaction (b) wittig reaction (c) sandmeyer's reaction. (5+4+5)
3. Explain (a) Acid- base theories (b) Isomerism. (7+7)
4. Explain about fridelcraft Acylation, alkylation. Add note on reamer tiemer reaction. (8+6)

5. Write note on SN1 and SN2 reaction and E1 and E2. (7+7)

6. Give an account of (a) Activation and deactivation O,P,m-directing gropus (b) Write down the general methods of preparation of aryl halides.

7. (a) Define aromatic electrophlic substitution reactions. Discuss the reaction and mechanism of nitration sulphonation, and friedel-craft reaction, sulphonation, and friedel-craft reaction. (10)

(b) Describe clemmenser reduction with suitable example. (4)

8. Explain the mechanism involved in Nucleophilic aromatic substitution reaction.

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Paper V — PHARMACEUTICAL INORGANIC
CHEMISTRY

(Regulation 2010-11)

Time : Three hours

Maximum : 70 marks

Answer any FIVE questions.

All questions carry equal marks.

1. Explain the principle and procedure involved in the limit tests for heavy metals, iron and sulphates.
2. What are redox titrations? Explain the principle and procedure involved in the assay of any two compounds.
3. What do you know of (2 × 7)
 - (a) Electrolyte replenishers
 - (b) Precipitation titrations

4. Give an account of the theory of indicators used in acid-base titrations.
5. Write the method of preparation, tests for purity and assay of any two compounds. (4 × 3½)
 - (a) Zinc Oxide
 - (b) Boric acid
 - (c) Ammonium chloride
 - (d) Magnesium sulphate
6. Write short notes on : (2 × 7)
 - (a) Antacids
 - (b) Errors in analysis
7. What are dental products? Classify them with examples. Write the method of preparation, tests for purity and assay of any two.
8. Give an account of (2 × 7)
 - (a) Radio pharmaceuticals
 - (b) Pharmaceutical aids.

Paper VIA: Remedial Mathematics

Time: Three hours

Max. Marks: 70

Answer any FIVE questions. All questions carry equal marks (5 X 14 = 70)

1 a) Show that

$$\begin{vmatrix} y+z & x & x \\ y & z+x & y \\ z & z & x+y \end{vmatrix} = 4xyz$$

b) Show that the following matrix A is non-singular matrix and find inverse of A

$$A = \begin{bmatrix} 1 & 2 & 1 \\ 3 & 2 & 3 \\ 1 & 1 & 2 \end{bmatrix}$$

2 a) Prove that $\sin A = (\sin 3A) / (1+2\cos 2A)$ and hence find the value of $\sin 15^\circ$ b) In triangle ABC, if $(a+b+c)(b+c-a) = 3bc$, find A 3 a) Find the equation of the line passing through the point of intersection of $x-y-2=0$, $4x-3y=0$ and parallel to the line $3x-2y+5=0$ b) Find the centre and radius of the circle $2x^2 + 2y^2 + 4x - 16y + 5 = 0$

4 a) Show that

$$\lim_{x \rightarrow 0} \frac{\operatorname{cosec} x - \cot x}{x} = \frac{1}{2}$$

b) Find the derivative of $(5x^2 - 7x - 1)^{15}$ with respect to 'x'

5 a) Evaluate

$$\int \frac{1}{x^2 + 4x + 6} dx$$

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

$$(1 + x^2) \frac{dy}{dx} + 4xy = \frac{1}{1 + x^2}$$

7 a) Find the Laplace transform of $t \sin^2 3t$ b) Find the Laplace transform of $t^2 \cos at$

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Paper VIB — REMEDIAL BIOLOGY

(Regulation 2010-2011)

Time : Three hours

Maximum : 70 marks

Answer any FIVE questions.

All questions carry equal marks.

1. Draw a neat labeled diagram of plant cell. Describe the functions of each part.
2. Discuss about leaf modifications with diagrams.
3. Describe the structure and reproductive methods in Fungi.
4. Describe the structure and functions of adrenal gland.
5. Describe the different types of stem modifications with suitable examples.

6. Explain about different types of fruits.
7. Describe about the morphology of plants.
8. Write about poisonous animals.