DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE, RAIGAD

END SEMESTER THEORY EXAM – WINTER 2024-25

Course – B Pharmacy Sem – I

Subject Name – Communication Skills Subject Code – BP105T

Max. Marks – 35 Date –02/01/2025 Duration – 1.5 Hrs

Instruction:

- All Questions are compulsory
- Draw diagrams / figures whenever necessary
- Figures to right indicate full marks

Q. 1. Long Answers (Answer 1 out of 2) **(1 × 10) = 10**

(i) Define interview and give Do's and don'ts for interview in detail.

(ii) Define communication and explain its components in detail.

Q. 2. Short Answers (Answer 5 out of 7) **(5 × 5) = 25**

i) Define Physical Barriers and explain it.

ii) Discuss about Emotional Barriers.

iii) Differentiate between verbal and non-verbal communication.

iv) Write a note on types of group discussion.

v) Discuss Signs of Active Listening.

vi) Write a note on Body language.

vii) Enlist and explain types of Communication.

------END OF PAPER-----

2

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY,
LONERE – RAIGAD -402 103
Supplimentary Winter Semester Examination – 2024

Branch: B. Pharmacy | **Semester: - II**
Subject: Human Anatomy and Physiology- II (BP201T) | **Marks: 75**
Time: 3 hrs. | **Date: 18/12/2024**

Instructions: i) All questions are compulsory
ii) Figures to the right indicate full marks
iii) Draw the diagrams or flow charts wherever necessary

Q. No. 1 Attempt any five of the following questions. **(10X2 = 20 Marks)**

1. Draw neat labeled diagram of kidney.
2. Define lungs volume & lungs capacity.
3. Give structural representation of Sperm.
4. Write note on chromosomes.
5. Write etiology of Salivary Calculi.
6. What do you mean by 'gyri' and 'sulci'?
7. Write the properties of nerve fibers.
8. Write functions of Hypothalamus.
9. Write symptoms of Addison's disease.
10. Write function of Urinary Tract.

Q. No.2 Long Answers (Answer 2 out of 3) **(2X10 = 20 Marks)**

1. Explain the structure and functions of Urinary System.
2. With the help of neat labeled diagram explain Male & female reproductive system.
3. Classification of hormones, mechanism of hormone action, structure and functions thyroid Gland.

Q. No. 3 Short Answerers (Answer 7 out of 9) **(7X5 =35 Marks)**

1. With the help of neat labeled diagram explain the structure of nephron.
2. Write a note on mechanism of respiration.
3. Write a note on Spermatogenesis.
4. Give the classification of Receptors & explain any one type.
5. Give the diagrammatic representation of Digestive system & explain in details Liver.
6. Write physiology of menstruation cycle & fertilization.
7. Write in detail structure and functions of adrenal gland & pancreas.
8. Explain in details Adam's apple.
9. Explain in details Structure & Functions of Cerebrum & Spinal cord.

----------*All the best*----------

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

Regular/Supplementary Winter Examination - 2024

3

B. Pharmacy **Semester: II Semester**

Name: Pharmaceutical Organic Chemistry-I **Subject Code: BP202T**

Marks: 75 **Date: 20-12-2024** **Duration: 3 Hr.**

Instructions to the Students:

1. **All questions are compulsory**
2. **Draw diagrams / figures wherever necessary**
3. **Figures to right indicate full marks**

Q.1. Objective Type Questions (Answer All the Questions) (10×2) =20

i) Write note on ozonolysis reaction.

ii) Enlist qualitative test for aldehyde.

iii) Explain Inductive effect.

iv) What is saytzeff's Rule, give its reaction.

v) Draw down the structure of I) 1-Methyl-3-Cyclohexanol II) 3-Hexanone

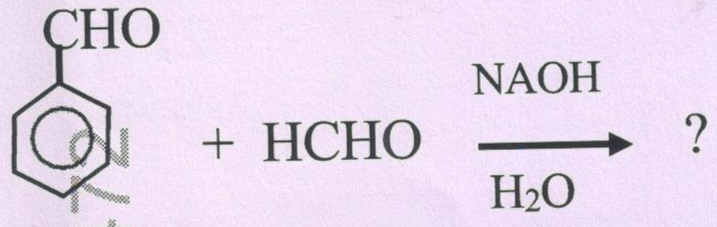
vi) Define functional isomerism with example.

vii) Explain Basicity of Amine.

viii) Define the term nucleophile and leaving group.

ix) Describe any two qualitative tests of carboxylic acid.

x) Predict the product as per



Q.2. Long Answers (Answer 2 out of 3) (10×2) =20

i) What is elimination reaction? Explain reaction, mechanism kinetics & order of Reactivity of E1 & E2 Reaction.

ii) Why Aldehydes & ketones are susceptible for nucleophilic addiction reaction? Explain the reaction & mechanism of Aldol condensation & crossed aldol condensation.

iii) Explain the Reaction, mechanism & sterio chemistry of SN1 Reaction.

Q.3. Short Answers (Answer 7 out of 9) (5X7) = 35

i) Write down the IUPAC Nomenclature rule for organic compound.

ii) What is carboxylic acid. Explain effect of substituents on acidity of carboxylic acid.

iii) Describe the Perkin Condensation Reaction.

iv) Define alkyl Halide & give it different chemical Reaction shown by alkyl halide.

v) Explain Qualitative tests for Amines?

vi) Draw the structures and uses for following organic compounds a) Chlorobutanol b) Acetyl salicylic Acid.

vii) Describe Halogenation of Alkane with examples.

viii) Explain Diel – Alder reaction.

ix) Write a note on Isomerism of organic compounds.

*** All The Best ***

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

Supplementary End Semester Winter Examination - 2024

Date: 23/12/2024

Course: B. Pharmacy **Semester: II**

Subject Name: Biochemistry **Subject Code: BP203T**

Max Marks: 75 **Duration: 3 Hr.**

Instructions:

1. **All questions are compulsory**
2. **Draw diagrams/figures wherever necessary**
3. **Figures to right indicate full marks**

Q. 1. Objective Type Questions (Answer all the questions) **(10 x 2) = 20**

i) Define carbohydrate with suitable example.

ii) Differentiate between DNA and RNA.

iii) State the coenzyme required for a conversion of pyruvic acid to acetyl co-A.

iv) Define Protein. Classify them with examples.

v) Give classification of enzyme with suitable example.

vi) What is high rich compound? Give two examples.

vii) Draw the structure of glucose.

viii) What is hyperbilirubinemia?

xi) State the enzymes present in DNA replication.

x) Define rancidity with suitable example.

Q. 2. Long Answers (Answer 2 out of 3) **(2 x 10) = 20**

i) Explain the biosynthesis of 5-HT and melatonin.

ii) Describe the reaction of urea cycle and mention in disorder.

iii) Describe biosynthesis of Purine and Pyrimidine nucleotides.

Q.3. Short Answers (Answer 7 out of 9) **(7x5) = 35**

i) Explain in detail bile acid synthesis.

ii) Describe HMP shunt pathway and give its regulation with significance.

iii) Explain the disorder of lipid metabolism.

iv) Explain about electron transport chain.

v) Explain the synthesis and significance of adrenaline.

vi) Explain the different type of RNA.

vii) Explain genetic code gene its silent feature.

viii) What are the substrate level phosphorylation and oxalate phosphorylation.

xi) Define co-enzyme. Give the structure and biological role of NAD^+ and FAD^+.

5

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

Winter Semester Examination - 2024

Course: B. Pharmacy **Sem :** II
Subject Name: Pathophysiology **Subject Code:** BP204T
Date: 26/12/2024 **Duration:** 3Hrs. **MaxMarks-**75

Instructions:

1. **All questions are compulsory**
2. **Draw diagrams / figures wherever necessary**
3. **Figures to right indicate full marks**

Q. 1. Objective Type Questions (Answer all the questions) **(10 x 2) = 20**

i) Define hypertrophy and atrophy. 02

ii) Define and classify Hypertension. 02

iii) Name the microorganisms which causes Urinary tract infections. 02

iv) Mention signs of Inflammation. 02

v) Enumerate events in cell cycle. 02

vi) What are the clinical features of Depression 02

vii) Compare Hypothyroidism and Hyperthyroidism 02

viii) Give any two differences between Hepatitis A and Hepatitis B 02

ix) Name the causative organism for Leprosy and Typhoid fever 02

x) Enlist the causes of Acute and Chronic renal failure. 02

Q. 2. Long Answers (Answer 2 out of 3) **(2 x 10) = 20**

i) Define Cancer. Explain in detail pathophysiology of Cancer. 10

ii) Enlist Ischemic heart diseases. Explain in detail pathophysiology of Angina pectoris. 10

iii) What is Diabetes mellitus? Discuss the pathophysiology of Diabetes. 10

Q. 3. Short Answers (Answer 7 out of 9) **(7 x 5) = 35**

i) Explain etiopathogenesis of Rheumatoid arthritis. 05

ii) Discuss the pathogenesis of Vitamin B12 and folic acid deficiency anaemia. 05

iii) Explain the etiology, pathogenesis and morphology of Reversible Cell injury. 05

iv) Define Tuberculosis. Explain the etiology, pathogenesis, signs and symptoms of Tuberculosis. 05

v) Describe the pathogenesis of AIDS and transmission of Human Immunodeficiency Virus. 05

vi) Give detailed account on pathophysiology of Parkinson's disease 05

vii) Define Ulcer. Explain causes, sign and symptoms of Peptic Ulcer 05

viii) Define Homeostasis. Enlist the components of feedback system. Explain negative or positive mechanism with examples. 05

ix) Discuss the pathogenesis of Gout. 05

--------END OF THE PAPER------

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE, RAIGAD

END SEMESTER THEORY EXAMINATION – WINTER 2024-25

Course – B. Pharmacy Sem – II

Subject Name – Computer Application in Pharmacy Subject Code – BP105T

Max. Marks – 50 Date –04/09/2023 Duration – 02 Hrs.

Instruction:

- All Questions are compulsory
- Draw diagrams / figures whenever necessary
- Figures to right indicate full marks

Q. 1 Long Answer (Any Two) (02 × 10) = 20

a) Define Bioinformatics and give its objectives, advantages, disadvantages and application.

c) Explain in detail application of Computer in Pharmacy.

b) Write a note on HTML and XML.

Q. 2 Short Answer (Any Six) (06 × 05) = 30

a) What is Data Base Management System? Explain its types.

b) Write a note on feasibility analysis.

c) Explain Various Pharmacy Drug Databases.

d) Define number system and explain its types.

e) Discuss about generation of computer.

f) Explain the Major Components of MS-Access.

g) Write in detail about Web Servers.

h) Write a note on LIMS and TIMS.

------END OF PAPER-----

7

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

End Semester Examination Winter -2024

Date : 24/12/2024

Course	**:**	**B. Pharmacy**	**Semester**	**:**	**I**
Subject Name	**:**	**Pharmaceutics-I**	**Subject Code**	**:**	**BP103T**
Max Marks	**:**	**75**	**Duration**	**:**	**3 Hr.**

Instructions:

1. **All questions are compulsory**
2. **Draw diagrams/figures wherever necessary**
3. **Figures to the right indicate full marks**

Q.1. Objective Type Questions (Answer all the questions) **(10 X 2) = 20**

i) Define a) Pharmacopoeia, b) Monographs.

ii) Define Emulsion. Give its classification.

iii) Define a) Syrup, b) Elixir.

iv) Give the advantages and disadvantages of suppositories.

v) Define pharmaceutical incompatibilities. Give its classification.

vi) Enlist various tests of identification for emulsion.

vii) Write a short note on Solubility Enhancement Techniques.

viii) Give ideal characteristics of ointment.

ix) Define Posology. Enlist the factors affecting dosage form.

x) Calculate the quantity of Dextrose required for 500 ml of 5% solution.

Q.2. Long Answers (Answer 2 out of 3) **(2 X 10) = 20**

i) Define Suspension. Give its classification, advantages and disadvantages. Differentiate between flocculated and deflocculated suspension.

ii) Define the prescription. Explain the parts of the prescription in detail. Add a note on the handling of the prescription.

iii) Define semisolid dosage form. Give details of the excipients used and evaluation tests.

Q.3. Short Answers (Answer 7 out of 9) **(7 X 5) = 35**

i) Define powder. Write a note on effervescent powder & dusting powder.

ii) Define monophasic liquid dosage form. Give in detail its preparation.

iii) Define displacement value and write its importance in the preparation of Suppositories.

iv) Write a short about "pharmacy as a career" by giving a scope of pharmacy.

v) Write a short note on Gels.

vi) Give advantages and disadvantages of liquid dosage form. Enlist the excipients used in it.

vii) Write a short note on ear drop.

viii) Give in detail the method of preparation and stability problem of Emulsion.

ix) Define Isotonicity. Enlist methods for adjustment of tonicity. Write a note on the freezing point depression method.

-----END OF THE PAPER-----

8

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

End Semester Examination – Winter 2024

Course: B. Pharmacy **Semester: I**

Subject Name: Pharmaceutical Inorganic Chemistry **Subject Code: BP104T**

Max Marks: 75 **Date: 27/12/2024** **Duration: 3 Hr.**

Instructions to the Students:

1. All questions are compulsory

2. Draw diagrams / figures wherever necessary

3. Figures to right indicate full marks

Q.1. Objective Type Questions (Answer All the Questions) **(10 X 2) = 20**

i) What are Dental products?

ii) Explain Acidifiers with Example.

iii) What are the Ideal properties of antacids

iv) Define Desensitizing agents with examples.

v) What are electrolytes?

vi) Define Astringents with example.

vii) Classify buffers. Give examples of buffers in pharmaceutical systems.

viii) Define antidote. Mention the uses of Activated charcoal.

ix) What are Radiopharmaceuticals?

x) Give the composition of ORS.

Q.2. Long Answers (Answer 2 out of 3) **(2 X 10) = 20**

i) Discuss in detail the role of major Extra and Intra cellular electrolytes with suitable examples.

ii) Describe the various sources and types of impurities present in pharmaceutical substances.

iii) Define antimicrobial agents. Give their classification and mechanism. Add a note on Hydrogen peroxide.

Q.3. Short Answers (Answer 7 out of 9) **(7 X 5) = 35**

i) Explain expectorants with example.

ii) Give calculations and methods of adjusting isotonicity.

iii) Define limit test. Explain in detail principle, reaction, procedure involve in limit test of chloride.

iv) Define Radioactivity and measurement of radioactivity with units.

v) Discuss Haematinics with example.

vi) Write in detail about Cathartics.

vii) Give the preparation, identification tests, assay and medicinal uses of Sodium thiosulphate.

viii) Write a note on Emetics.

ix) Explain the role of fluoride in the treatment of dental caries.

***** END OF THE PAPER *****

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVESITY
LONERE-RAIGAD-402103

End Semester Examination - Winter 2024

Course: B. Pharmacy | **Semester: I**
Subject Name: Human Anatomy & Physiology-I | **Subject Code: BP101T**
Date:19/12/2024 | **Max Marks: 75** | **Duration: 3 Hr.**

Instructions:

1. **All questions are compulsory**
2. **Draw diagrams / figures wherever necessary**
3. **Figures to right indicate full marks**

Q. 1. Objective Type Questions (Answer all the questions) **(10 x 2) = 20**

i. Define anatomy and physiology.

ii. Draw neat labelled diagram of mitochondria.

iii. Name the bones of skull.

iv. Classify joints on the basis of structure with example.

v. Enlist blood clotting factors.

vi. Discuss functions of lymphatic system.

vii. Difference between sympathetic & parasympathetic nervous system.

viii. Define the following terms: a) Cataract b) Myopia

ix. Explain the various heart valves.

x. What is ECG? Give its significance.

Q. 2. Long Answers (Answer 2 out of 3) **(2 x 10) = 20**

i. Explain in detail about the Conductive System of Heart & its regulation by ANS with neat Labelled diagram.

ii. Explain the anatomy of eye with neat Labelled diagram. Describe the physiology of Vision.

iii. Define Integumentary System. Explain the anatomy of skin with neat labelled diagram & and add a note on accessory structure of skin.

Q. 3. Short Answers (Answer 7 out of 9) **(7 x 5) = 35**

i. Write a note on ABO & Rh system.

ii. Explain transport of material across the cell membrane.

iii. Write a note on classification, structure, location & functions of epithelial tissue.

iv. Describe origin, nature & function of cranial nerves.

v. Write a note on Reticulo-endothelial System.

vi. Write the composition & function of Blood.

vii. Elaborate connective tissue and nervous tissue

viii. What is cell division, explain phases of mitosis.

ix. Discuss the mechanism of blood coagulation.

-----END OF THE PAPER-----

10

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

End Semester Examination – Winter 2024

Date : 04/01/2025
Course : B. Pharmacy
Subject Name : Remedial Mathematics
Max Marks : 35

Sem: I
Subject Code: BP106RMT
Duration : 02 Hr.

Instructions:
1. All questions are compulsory
2. Draw diagrams / figures wherever necessary
3. Figures to right indicate full marks

Q. 1. Attempt Any Three **(15 Marks)**

1. Explain Types of Matrix.
2. Write a note on Proper and Improper fraction.
3. Give the applications for solve Pharmacokinetic equation.
4. Write a note on slope intercept form of Line.

Q. 2. Attempt Any Two **(20 Marks)**

1. Resolve $\frac{2x+3}{x^2-2x-3}$ into partial fraction
2. Solve the following Equation

$$\frac{dy}{dx} + \frac{\cos x}{\sin x} y = \cos x.$$

3. Integrate $\frac{\int 3x+1}{(x-1)^2\ (x+3)}$ dx, using partial fraction

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

Supplementary Summer Examination – 2024

Course: B. Pharmacy **Semester: I**

Subject Name: Human Anatomy and Physiology I **Subject Code: BP101T**

Max Marks: 75 **Date:13-06-2024** **Duration: 3 Hr.**

Instructions to the Students:

1. **All questions are compulsory**
2. **Draw diagrams / figures wherever necessary**
3. **Figures to right indicate full marks**

Q.1.	**Objective Type Questions (Answer All the Questions)**	**(10X2) =20**
i)	What is the scope of anatomy and physiology?	
ii)	Give any four examples of connective tissues in body.	
iii)	Define Joints? Classify it with example?	
iv)	What are the primary functions of epithelial tissue?	
v)	What do you mean by cardiac cycle?	
vi)	Enlist different parts of ear?	
vii)	What are neurotransmitters released at the neuromuscular junction?	
viii)	Enlist clotting factors.	
ix)	What is the main function of the lymphatic system?	
x)	How kidney is responsible for regulating blood pressure?	
Q.2.	**Long Answers (Answer 2 out of 3)**	**(10X2) =20**
i)	Describe the structure and functions of the lymphatic system.	
ii)	Explain the process of hemopoiesis and the functions of blood.	
iii)	Discuss the organization and functions of the peripheral nervous system.	
Q.3.	**Short Answers (Answer 7 out of 9)**	**(5 X 7) = 35**
i)	Define homeostasis. Give examples.	
ii)	Name and briefly describe the four types of intracellular signaling.	
iii)	What are the functions of muscular tissue?	
iv)	Note on ABO and Rh system	
v)	Describe the components of the cardiovascular system	
vi)	What are the functions of the reticuloendothelial system?	
vii)	Briefly explain the structure and functions of the eye.	
viii)	Define cardiac output and explain its significance.	
ix)	Discuss the axial and appendicular skeleton.	

***** END OF THE PAPER *****

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DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

Supplementary Summer Examination – 2024

Course: B. Pharmacy **Semester: II**

Subject Name: Pharmaceutical Analysis I **Subject Code:** BP102T

Max Marks: 75 **Date: 24-06-2024** **Duration: 3 Hr.**

Instructions to the Students:

1. All questions are compulsory

2. Draw diagrams / figures wherever necessary

3. Figures to right indicate full marks

Q.1.	**Objective Type Questions (Answer All the Questions)**	**(10 X 2) = 20**
i)	What are the effects of impurities on pharmaceutical products?	
ii)	Define Lewis Acid and Base with a suitable example.	
iii)	Why buffers are added in complexometric titrations	
iv)	What are the different analytical techniques used in pharmaceutical analysis?	
v)	Name the indicators used in K. Fajan's method of precipitation titration.	
vi)	Write a short note on demasking agents used in complexometric titrations.	
vii)	Give construction of Guitzet apparatus.	
viii)	Define the terms Molarity and Normality.	
ix)	Explain different sources of impurities	
x)	Give the difference between Cerimetry and Iodimetry.	
Q.2.	**Long Answers (Answer 2 out of 3)**	**(10 X 2) = 20**
i)	Give a brief account of the limit test of Arsenic with principle, apparatus and procedure.	
ii)	Give a detail account of various end point detection techniques in precipitation titration.	
iii)	Explain different types of complexometric titrations.	
Q.3.	**Short Answers (Answer 7 out of 9)**	**(5 X 7) = 35**
i)	Discuss in detail limit test for iron.	
ii)	Write note on the co-precipitation process.	
iii)	Give in detail the different techniques of filtration used in gravimetric analysis.	
iv)	Give a brief account of leveling effect in non-aqueous titrations.	
v)	Write a note on construction and working of Standard hydrogen electrode.	
vi)	Explain Mohr's and Volhard's end point detection methods.	
vii)	Give the construction and working of dropping mercury electrode.	
viii)	Explain the construction of different types of conductometric cells.	
ix)	Discuss in brief the factors affecting surface adsorption	

***** END OF THE PAPER *****

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13

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

Supplementary Summer Examination – 2024

Course: B. Pharmacy **Semester: I**

Subject Name: Pharmaceutics I **Subject Code: BP103T**

Max Marks: 75 **Date: 19-06-2024** **Duration: 3 Hr.**

Instructions to the Students:

1. **All questions are compulsory**
2. **Draw diagrams / figures wherever necessary**
3. **Figures to right indicate full marks**

Q.1.	**Objective Type Questions (Answer All the Questions)**	**(10 X 2) = 20**
i)	Define Suspension and give its advantage	
ii)	Give difference between Elixirs and syrup	
iii)	Give the role of following Ingredient: Iodine, Cresol, Paractomol and Calamine	
iv)	Define Mouthwash and Gargle	
v)	Define Suppositories and classify suppository base	
vi)	Classify Powder according to route of administration	
vii)	Write a quality of an ideal suspension.	
viii)	Enlist the step of handling of prescription.	
ix)	What are the objectives for dosage form design?	
x)	Define Emulsion and enlist test for identification of emulsion	
Q.2.	**Long Answers (Answer 2 out of 3)**	**(10 X 2) = 20**
i)	Define powder, classify the powder. Discuss about powder enclose in cachets.	
ii)	Define the term suppositories? Describe in brief various type of suppository and its method of preparation?	
iii)	Write a note on Emulsion. (Definition, type, Identification test, preparation of emulsion, stability)	
Q.3.	**Short Answers (Answer 7 out of 9)**	**(5 X 7) = 35**
i)	Define therapeutic incompatibility and give detail about various reasons?	
ii)	Define Prescription and discuss various parts of prescription.	
iii)	Explain in details about Emulsifying agent.	
iv)	Explain in details about Effervescent granules along with its methods of preparation	
v)	Give in brief, the history of the Indian Pharmacopoeia	
vi)	Write a note on: Pharmacy as a career	
vii)	Explain in detail handling of prescription.	
viii)	Define posology. Explain any 4 factors affecting the dose of the drug	
ix)	Discuss the different method of powder mixing.	

***** END OF THE PAPER *****

14

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

Regular/Supplementary Summer Examination – 2024

Course: B. Pharmacy **Semester: II**

Subject Name: Human Anatomy & Physiology II **Subject Code: BP201T**

Max Marks: 75 **Date: 12-06-2024** **Duration: 3 Hr.**

Instructions to the Students:

1. **All questions are compulsory**
2. **Draw diagrams / figures wherever necessary**
3. **Figures to right indicate full marks**

Q.1.	**Objective Type Questions (Answer All the Questions)**	**(10X2) =20**
i)	**Give functions of Hypothalamus**	
ii)	**Define Tidal volume & BMR**	
iii)	**Draw a neat labeled diagram of urinary system**	
iv)	**Enlist different functions of respiratory system**	
v)	**What do you mean by Pheochromocytoma and diabetes insipidus**	
vi)	**What are chromosomes**	
vii)	**Give composition & functions of bile juice**	
viii)	**What do you mean by neurolgia & action potential**	
ix)	**Name hormones secreted by pancreas and give its functions**	
x)	**What are afferent and efferent nerve tract**	
Q.2.	**Long Answers (Answer 2 out of 3)**	**(10X2) =20**
i)	**Explain Oogenesis and Spermatogenesis**	
ii)	**Explain meaning of External, Internal respiration Give in detail physiology of respiration**	
iii)	**Explain in detail Physiology of Digestion of Fats, protein, Carbohydrates**	
Q.3.	**Short Answers (Answer 7 out of 9)**	**(5 X 7) = 35**
i)	**Write the functions CSF & show circulation of cerebrospinal fluid with help of diagram**	
ii)	**Explain different phases of menstrual cycle with neat labelled diagram**	
iii)	**Explain structure of Nephron with help of diagram**	
iv)	**Give functions of gastric juice & regulation of acid production in stomach**	
v)	**Write a short note on Cardiopulmonary resuscitation & Acute renal failure**	
vi)	**Enlist two functions of kidney & explain role of RAS Kidney**	
vii)	**Define Hormone and give its classification**	
viii)	**Write a note on structure and functions of spinal cord**	
ix)	**Name different hormone secreted by Pituitary gland & give its functions**	

***** END OF THE PAPER *****

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15

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

Regular/Supplementary Summer Examination – 2024

Course: B. Pharmacy **Semester: II**

Subject Name: Pharmaceutical Organic Chemistry-I **Subject Code: BP202T**

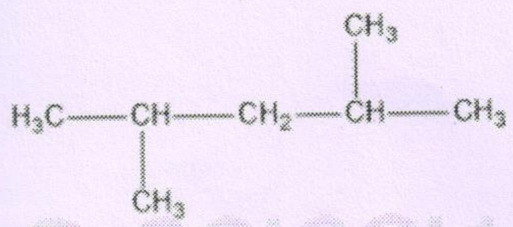
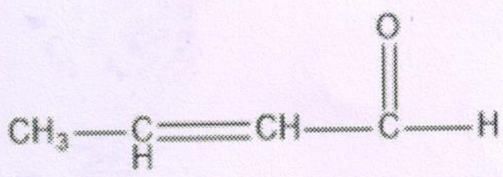
Max Marks: 75 **Date: 14-06-2024** **Duration: 3 Hr.**

Instructions to the Students:

1. All questions are compulsory

2. Draw diagrams / figures wherever necessary

3. Figures to right indicate full marks

Q.1.	**Objective Type Questions (Answer all the questions)**	**(10 X 2) = 20**
i)	Describe any two qualitative tests for carboxylic acid.	
ii)	Define functional isomerism with example.	
iii)	Explain Inductive effect.	
iv)	Write a note on ozonolysis reaction.	
v)	Write a difference between E_1 and E_2 reaction.	
vi)	What is meant by Electromeric effect?	
vii)	Draw the structure and uses of Ethyl alcohol.	
viii)	Write the IUPAC names of the following compounds.  a)  b)	
ix)	Draw the structure of the following compounds. a) 2-buten-1-ol b) 4-hydroxy pentanoic acid	
x)	White is saytzeff's rule? Give its reaction.	
Q.2.	**Long Answers (Answer 2 out of 3)**	**(10 X 2) = 20**
i)	What is elimination reaction? Explain reaction, mechanism, kinetics and order of reactivity of E_1 and E_2 reaction?	
ii)	Illustrate the reaction and mechanism of Markownikoff's and anti-Markownikoff's orientation of alkene with suitable example.	
iii)	Explain the reaction, mechanism and stereochemistry of SN_2 reaction.	
Q.3.	**Short Answers (Answer 7 out of 9)**	**(5 X 7) = 35**
i)	Explain the sp^3 hybridization in alkanes with suitable example.	
ii)	Discuss the free radical addition reactions of conjugated dienes.	
iii)	Write a short note on Cannizzaro's reaction.	
iv)	What are carboxylic acids? Explain the effect of the substituents on acidity of carboxylic acid?	

v)	Draw the structure and mention the uses of following compounds, a) Benzoic acid b) Ethanolamine c) Ethylenediamine d) Dichloromethane e) Benzaldehyde
vi)	Write chemical reactions of alkyl halide.
vii)	Discuss on Benzoin condensation reaction.
viii)	Write reactions of carbonyl compounds.
ix)	Arrange the following compounds in order of increasing acidity. Justify your answer. Chloroacetic acid, formic acid, acetic acid, dichloroacetic acid.
***** END OF THE PAPER *****	

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17

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

Regular/Supplementary Summer Examination – 2024

Course: B. Pharmacy **Semester: II**

Subject Name: Pharmaceutical Organic Chemistry-I **Subject Code: BP202T**

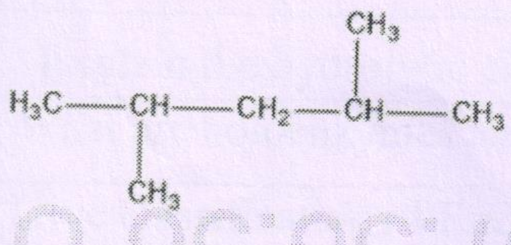
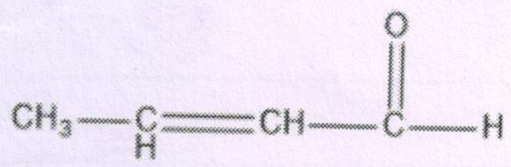
Max Marks: 75 **Date: 14-06-2024** **Duration: 3 Hr.**

Instructions to the Students:

1. All questions are compulsory

2. Draw diagrams / figures wherever necessary

3. Figures to right indicate full marks

Q.1.	**Objective Type Questions (Answer all the questions)**	**(10 X 2) = 20**
i)	Describe any two qualitative tests for carboxylic acid.	
ii)	Define functional isomerism with example.	
iii)	Explain Inductive effect.	
iv)	Write a note on ozonolysis reaction.	
v)	Write a difference between E_1 and E_2 reaction.	
vi)	What is meant by Electromeric effect?	
vii)	Draw the structure and uses of Ethyl alcohol.	
viii)	Write the IUPAC names of the following compounds. a)  b) 	
ix)	Draw the structure of the following compounds. a) 2-buten-1-ol b) 4-hydroxy pentanoic acid	
x)	White is saytzeff's rule? Give its reaction.	
Q.2.	**Long Answers (Answer 2 out of 3)**	**(10 X 2) = 20**
i)	What is elimination reaction? Explain reaction, mechanism, kinetics and order of reactivity of E_1 and E_2 reaction?	
ii)	Illustrate the reaction and mechanism of Markownikoff's and anti-Markownikoff's orientation of alkene with suitable example.	
iii)	Explain the reaction, mechanism and stereochemistry of SN_2 reaction	
Q.3.	**Short Answers (Answer 7 out of 9)**	**(5 X 7) = 35**
i)	Explain the sp^3 hybridization in alkanes with suitable example.	
ii)	Discuss the free radical addition reactions of conjugated dienes.	
iii)	Write a short note on Cannizzaro's reaction.	
iv)	What are carboxylic acids? Explain the effect of the substituents on acidity of carboxylic acid?	

v)	Draw the structure and mention the uses of following compounds, a) Benzoic acid b) Ethanolamine c) Ethylenediamine d) Dichloromethane e) Benzaldehyde
vi)	Write chemical reactions of alkyl halide.
vii)	Discuss on Benzoin condensation reaction.
viii)	Write reactions of carbonyl compounds.
ix)	Arrange the following compounds in order of increasing acidity. Justify your answer. Chloroacetic acid, formic acid, acetic acid, dichloroacetic acid.
	***** END OF THE PAPER *****

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DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

Regular/Supplementary Summer Examination – 2024

Course: B. Pharmacy **Semester:II**

Subject Name: Biochemistry **Subject Code: BP203T**

Max Marks: 75 **Date:18/06/2024** **Duration: 3 Hr.**

Instructions to the Students:

1. **All questions are compulsory**
2. **Draw diagrams / figures wherever necessary**
3. **Figures to right indicate full marks**

Q.1.	**Objective Type Questions (Answer All the Questions)**	**(10 X 2) = 20**
i)	Give a classification of carbohydrates with a suitable example.	
ii)	Draw the structure of α d Glucose.	
iii)	Which enzyme is involved in the conversion of Glucose -6-phosphate to fructose- 6-phosphate and Glucose -6-phosphate to glucose .	
iv)	How is glycolysis regulated?	
v)	What are different methods of catabolism of purine nucleotides ?	
vi)	Define amino acids. Classify them with examples.	
vii)	Enlist steps involved in DNA replication by semi-conservative model.	
viii)	Explain the hydrolytic deamination.	
ix)	What are holoenzymes and prosthetic groups?	
x)	Give classification of Enzymes with an example of each.	
Q.2.	**Long Answers (Answer 2 out of 3)**	**(10 X 2) = 20**
i)	Give brief account of TCA cycle with its significance and energetics	
ii)	Explain the biosynthesis of 5-HT and melatonin.	
iii)	Discuss β-oxidation of saturated fatty acids with energetics.	
Q.3.	**Short Answers (Answer 7 out of 9)**	**(5 X 7) = 35**
i)	Give details of bioenergetics of glycolysis.	
ii)	Explain in detail bile acid synthesis.	
iii)	Write a short note on urea cycle.	
iv)	Define polysaccharides and describe the structure of any one polysaccharide.	
v)	Explain the different methods of catabolism of amino acids.	
vi)	Describe HMP shunt pathway and give its regulation with significance.	
vii)	Write a short note on Formation of Melanin.	
viii)	Write a short note on ketone bodies.	
ix)	Explain the different types of Enzyme inhibitors with suitable examples.	

***** END OF THE PAPER *****

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DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

20

End Semester Examination – Winter 2024

Date : 04/01/2025 Only for DSP

Course : B. Pharmacy Sem: I

Subject Name : Remedial Mathematics Subject Code: BP106RMT

Max Marks : 35 Duration : 02 Hr.

Instructions:
1. All questions are compulsory
2. Draw diagrams / figures wherever necessary
3. Figures to right indicate full marks

Q. 1. Attempt Any Three **(15 Marks)**

1. Explain Types of Matrix.
2. Write a note on Proper and Improper fraction.
3. Give the applications for solve Pharmacokinetic equation.
4. Write a note on slope intercept form of Line.

Q. 2. Attempt Any Two **(20 Marks)**

1. Resolve $\frac{2x+3}{x^2-2x-3}$ into partial fraction

2. Solve the following Equation

$$\frac{dy}{dx} + \frac{\cos x}{\sin x} y = \cos x.$$

3. Integrate $\frac{\int 3x+1}{(x-1)^2 \quad (x+3)}$ dx, using partial fraction

Academic Incharge
Mr. Anis A. Shaikh

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Dr. Babasaheb Ambedkar Technological University, Lonere. (Semester III)B. Pharm Winter Theory Examination of 2020-2021

2020

21

Centre- Shram Sadhana Bombay Trust's Institute of Pharmacy, Bambhori, Jalgaon.
Subject Name- Remedial Mathematics (BP106RMT)
Date- 26/05/2021 Time-10.00 AM TO 12.00 N
Maximum Marks- 20
* Required

1. Email *

_____

2. Full Name of Student *

_____

3. Enrollment Number *

_____

Q. 1 Choose Correct answer 25 Marks

All questions are compulsory
Each question carries 05 Marks.

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An equation of the form ax + b = 0 is called a -------- of x, where x is unknown variable (quantity) and a and b are any constants. * 5 points

22

Mark only one oval.

- linear equation
- lining
- horizontal equation
- none of the above

Divide 57 in to two parts such that their product in 782 * 5 points

Mark only one oval.

- 34, 23
- 22,52
- 55,23
- All of the above

There are three methods to solve a complete quadratic equation: * 5 points

Mark only one oval.

- Method of factorization
- Method of Completing the square
- Method of formula
- All of the above

7. The sum of two numbers in 18 and their product in 56. Find the numbers. * 5 points

Mark only one oval.

- 6 and 20
- 4 and 14
- 13 and 14
- 20 and 2

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Two numbers differ by 3 and their product in 504. Find the numbers. * 5 points

23

Mark only one oval.

- 21 and 24
- 20 and 24
- 21 and 19
- None Of above

2 Choose Correct answer 10 Marks

uestions are compulsory
1 question carries 10 Marks.

solve the solution set of the given equation is, * 10 points

$$\sqrt{5x^2-6x+8}-\sqrt{5x^2-6x-7}=1$$

Mark only one oval.

- 4, -14/5
- 3, 15/2
- Both A and B
- None of this

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Bambhori,Jalgaon-425001.(M.S.)

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DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE, RAIGAD

24

END SEMESTER THEORY EXAM – SUMMER 2022-23

Sem – I

Course – B. Pharmacy
Subject Name – Remedial Mathematics
Max. Marks – 35

Date –05/09/2023

Subject Code – BP106RMT
Duration – 01.5 Hrs.

Instruction:

- All Questions are compulsory
- Draw diagrams / figures whenever necessary
- Figures to right indicate full marks

Q.1) Attempt All Question **(15 Marks)**

1. Note on Proper and Improper fraction.
2. Give the applications for solve Pharmacokinetic equation.
3. Find the value of log (214.71).

Q.2) Attempt (Any 2) **(20 Marks)**

1. Resolve $\frac{2x+3}{x^2-2x-3}$ into partial fraction

2. Integrate $\int \frac{3x+1}{(x-1)^2\ (x+3)}$ dx, using partial fraction

2. Explain Types of Matrix.

-----END OF PAPER-----

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Dr. Babasaheb Ambedkar Technological University, Lonere. (Semester I) B. Pharm Winter Theory Examination of 2021-2022

2022

Centre- Shram Sadhana Bombay Trust's Institute of Pharmacy, Bambhori, Jalgaon.
Subject Name- Remedial Mathematics (BP106RMT)
Date- 25/04/2022 Time-10.00 AM TO 01.00 N (01.30 hours after login)
Maximum Marks- 35

25

* Required

1. Email *

2. Full Name of Student *

3. Enrollment Number (PRN number) *

Q. 1 Choose Correct answer 25 Marks

All questions are compulsory
Each question carries 05 Marks.

4. What is the log of 125 to the base 5 *

Mark only one oval.

- 03
- 16
- 18
- 24

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Find the value of determinant *

$$\Delta = \begin{vmatrix} 1 & 3 & -1 \\ -2 & 1 & 2 \\ 4 & 5 & 1 \end{vmatrix}.$$

26

Mark only one oval.

- 50
- 40
- 35
- 15

*

If $A = \begin{pmatrix} 4 & x+2 \\ 2x-3 & x+1 \end{pmatrix}$ is symmetric, then what is x equal to?

Mark only one oval.

- 2
- 3
- -1
- 5

*

Question: Integrating factor of differential equation $\cos x \frac{dy}{dx} + y \sin x = 1$ is

Mark only one oval.

- sec x
- sin x
- cos x
- tan x

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Divide 57 in to two parts such that their product in 782 *

Mark only one oval.

- 34, 23
- 22,52
- 55,23
- All of the above

27

2 Choose Correct answer 10 Marks

questions are compulsory
h question carries 10 Marks.

Find two positive number X and Y such that X + Y = 60 and XY3 is maximum *

Mark only one oval.

- 35,20
- 45,15
- 35,15
- 20,40

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28

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

End Semester Examination – Winter 2022-23

Date: 07/09/2023

Course:	**First Year B. Pharmacy**	**Sem:**	**I**
Subject Name:	**Human Anatomy and Physiology-I**	**Subject Code:**	**BP101T**
Max Marks:	**75**	**Duration:**	**3 Hr.**

Instructions:

1. **All questions are compulsory**
2. **Draw diagrams / figures wherever necessary**
3. **Figures to right indicate full marks**

Q. 1. Objective Type Questions (Answer all the questions) **(10 x 2) = 20**

i) Differentiate between sympathetic and parasympathetic nervous system.

ii) Discuss function of skin.

iii) Explain the bones of the Skull.

iv) Define Joint? Classify it with examples.

v) Explain Layers of skin.

vi) Draw a neat labeled diagram of structure of cell.

vii) Describe the division of skeletal system.

viii) Draw a neat labeled diagram of lymph node.

ix) Note on Function of Ribosome's.

x) List out the basic life processes.

Q. 2. Long Answers (Answer 2 out of 3) **(2 x 10) = 20**

i) Explain the structure of heart with neat labeled diagram. Discuss the cardiac cycle.

ii) Explain the structure of eye with a neat labeled diagram. Describe the physiology of vision.

iii) Explain the classification, structure, location and functions of Epithelial tissues.

Q. 3. Short Answers (Answer 7 out of 9) **(7 x 5) = 35**

i) Note on ABO and Rh system.

ii) Explain Physiology of muscle contraction.

iii) Explain the origin and functions of spinal and cranial nerves.

iv) Explain homeostasis.

v) Write the composition and functions of blood.

vi) Describe conducting system of Heart

vii) Note on Composition and functions of Lymph.

viii) Write about transport across cell membrane.

ix) Write anatomy of ear.

-----END OF THE PAPER-----

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

End Semester Examination – Summer 2023

Date:09/09/2023

Course	**:**	**B. Pharmacy**	**Sem:**		**I**
Subject Name	**:**	**Pharmaceutical Analysis-I**	**Subject Code**	**:**	**BP102T**
Max Marks	**:**	**75**	**Duration**	**:**	**3 Hr.**

Instructions:

1. **All questions are compulsory**
2. **Draw diagrams / figures wherever necessary**
3. **Figures to right indicate full marks**

Q. 1. Objective Type Questions (Answer all the questions) **(10 x 2) = 20**

i) Define primary & secondary standard substances with an example of each.

ii) What do you mean by oxidizing and reducing agent?

iii) Give the principle of limit test of chloride.

iv) Write down the definition of acid and base as per Lowry-Bronsted theory?

v) What is levelling and differentiating effect?

vi) What is masking and demasking?

vii) How will you standardize 0.1N $KMnO_4$ Solution?

viii) Write down the principle of Volhard's method.

ix) Define equivalent conductance.

x) Give the principle of diazotization titration?

Q. 2. Long Answers (Answer 2 out of 3) **(2 x 10) = 20**

i) Describe the principle of Potentiometric titration. Write down the construction and working of indicator electrode and reference electrode.

ii) Explain different types of acid base titrations. Add a note on neutralization curve.

iii) Define gravimetric analysis. Describe the various steps involved in it.

Q. 3. Short Answers (Answer 7 out of 9) **(7 x 5) = 35**

i) What is Pharmaceutical Analysis? Give the classification of different techniques of analysis.

ii) Define error. Enlist the sources and types of errors and explain methods of minimizing errors.

iii) What do you mean by impurity? Describe the sources of impurities in pharmaceuticals.

iv) Define indicator and explain Ostwald theory and resonance theory of acid base indicators.

v) What is non aqueous titration? Explain different types of non-aqueous solvents with examples.

vi) What is precipitation titration? Write in detail about Mohr's method.

30

vii) Explain the concept of redox titration with suitable example and differentiate between Iodimetry and Iodometry.

viii) Write a short note on Conductomeric titrations.

ix) Explain the principle of Polarography. Focus on construction and working of dropping of mercury electrode and rotating platinum electrode.

------END OF THE PAPER------

31

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

End Semester Examination – Summer 2023

Date: 11/09/2023

Course	**:**	**B. Pharmacy**	**Sem**	**:**	**II**
Subject Name	**:**	**Biochemistry**	**Subject Code**	**:**	**BP203T**
Max Marks	**:**	**75**	**Duration**	**:**	**3hr**

Instructions:

1. **All questions are compulsory**
2. **Draw diagrams / figures wherever necessary**
3. **Figures to right indicate full marks**

Q. 1. Objective Type Questions (Answer all the questions) **(10 x 2) = 20**

i) Define transamination and deamination.

ii) Write differences between DNA and RNA.

iii) Define endergonic and exergonic reactions.

iv) Give biological significance of cholesterol.

v) Define nucleosides and nucleotides

vi) Write the biological functions of proteins.

vii) Draw structures of Sucrose and Tyrosine.

viii) Define essential fatty acids with examples.

ix) What is fatty liver and phenylketonuria?

x) Define energy rich compounds with examples.

Q. 2. Long Answers (Answer 2 out of 3) **(2 x 10) = 20**

i) Explain the various reactions involved in the Citric acid cycle with energetics.

ii) Explain β-oxidation of fatty acid along with the energetics.

iii) Define Enzyme inhibitors and discuss different types of enzyme inhibitors.

Q. 3. Short Answers (Answer 7 out of 9) **(7 x 5) = 35**

i) Explain electron transport chain.

ii) Give the reaction sequence of Glycolysis pathway.

iii) Define enzymes and classify them according to IUB with examples.

iv) Define carbohydrates classify them with example and give their biological significance.

v) What is ketoacidosis? Write the formation of ketone bodies.

vi) Explain biosynthesis of purine.

vii) Describe the hormonal regulation of blood glucose level.

viii) Give the reaction sequence in Urea Cycle.

ix) Explain replication of DNA.

------END OF THE PAPER------

32

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

End Semester Examination – Summer 2023

Date: 13/09//2023

Course	**:**	**B. Pharmacy**	**Sem:**	**II**
Subject Name	**:**	**Pathophysiology**	**Subject Code**	**: BP204T**
Max Marks	**:**	**75**	**Duration:**	**03 Hr.**

Instructions:

1. **All questions are compulsory**
2. **Draw diagrams / figures wherever necessary**
3. **Figures to right indicate full marks**

Q. 1. Objective Type Questions (Answer all the questions) **(10 x 2) = 20**

i) Define Pathophysiology. Explain the Scope of Pathophysiology.

ii) Define the following terms: a) Atrophy b) Hyperplasia

iii) Write the diagnostic tests for Myocardial Infarction (MI).

iv) Define Anemia. Enlist any 4 types of Anemia

v) Explain types of hepatitis.

vi) Explain cause of chronic renal failure.

vii) Explain sign & symptoms of gout.

viii) Explain chemical mediators of inflammation.

ix) Define terms leprosy & jaundice.

x) Define terms hypothyroidism & hypertension.

Q. 2. Long Answers (Answer 2 out of 3) **(2 x 10) = 20**

i) Define Asthma. Explain the pathogenesis, types, causes, and Prevention of Asthma.

ii) Define TB. Explain the pathogenesis, types, causes, and Prevention of TB.

iii) Define epilepsy. Explain the pathogenesis, types, causes, and Prevention of epilepsy.

Q. 3. Short Answers (Answer 7 out of 9) **(7 x 5) = 35**

i) Write a note on UTI.(Explain the Types, Etiology, Diagnosis)

ii) Define Atherosclerosis. Discuss the Pathogenesis & Causes of Atherosclerosis.

iii) Define Angina Pectoris. Explain the Types, Etiology, Clinical Manifestations/ features, Diagnosis, and Treatment of Angina Pectoris.

iv) Define COPD. Explain the pathogenesis, causes, and Prevention of COPD.

v) Discuss in brief about rheumatoid arthritis.

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vi) Define diabetes mellitus. Discuss the Pathogenesis & Causes of diabetes mellitus.

vii) Explain the etiology & pathogenesis of peptic ulcer.

viii) What is AIDS? Explain the pathogenesis, causes, and Prevention of AIDS.

ix) Explain the etiology, pathogenesis and morphology of reversible cell injury.

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BP 204T DBATU 2023

34

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

End Semester Examination Summer-2023

Date: 08- 09-2023

Course	**:**	**B. Pharmacy**	**Sem:**		**II**
Subject Name	**:**	**Pharmaceutical Organic Chemistry-I**	**Subject Code**	**:**	**BP202T**
Max Marks	**:**	**75**	**Duration**	**:**	**3 Hr.**

Instructions:

1. **All questions are compulsory**
2. **Draw diagrams / figures wherever necessary**
3. **Figures to right indicate full marks**

Q. 1. Objective Type Questions (Answer all the questions) **(10 x 2) = 20**

i) Define electrophile and nucleophile with example?

ii) Write down the structures of

a) 2-methyl-3-chloro-1-pentene
b) 5-fluoro-3-hydroxy-pentanoic acid

iii) Enlist the qualitative test for Aldehyde?

iv) Explain basicity of amine?

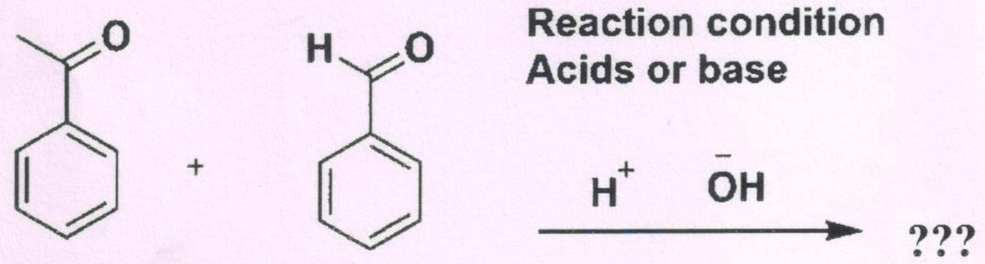
v) Write down the structure and uses of benzyl alcohol?

vi) Enlist the reactions of carbonyl compounds?

vii) What is the hybridization of carbon atom present in

a) Alkanes b) Alkenes

viii) Predict the product as per the Crossed Aldol Condensation in the following reaction?



ix) Define carbocation and carbanion?

x) What is inductive effect?

Q. 2. Long Answers (Answer 2 out of 3) **(2 x 10) = 20**

i) What elimination reaction? Explain reaction, mechanism kinetics, and order of reactivity of E1 and E2 reaction?

ii) Why Aldehydes and ketones are susceptible for nucleophilic addition reactions? Explain the reaction and mechanism of Aldol condensation and benzoin condensation?

iii) Write in detail about bimolecular nucleophilic substitution reaction (SN2) along with suitable example?

Q. 3. Short Answers (Answer 7 out of 9) **(7 x 5) = 35**

i) Write down the Rules for IUPAC Nomenclature for organic compounds?

ii) Write a short note on isomerism in organic compounds?

iii) Discuss about the free radical addition reactions of conjugated dienes?

iv) Describe with example, halogenation of alkane?

v) Explain Diel-Alder reaction?

vi) Write short note on Cannizzaro's reaction?

vii) Write about the Markownikoff's rule and Anti-Markownikoff's rule?

35

viii) What are carboxylic acids? Explain the effect of substituents on acidity of carboxylic acids?

ix) Draw the structures of a) Benzoic acid b) Ethanolamine c) Ethylenediamine d) Dichloromethane e) Benzaldehyde

-----END OF THE PAPER-----

36

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

End Semester Examination – Summer-2023

Date:06/09/2023

Course	**:**	**B. Pharmacy**	**Sem: II**		
Subject Name	**:**	**Human Anatomy and Physiology-II**	**Subject Code**	**:**	**BP201T**
Max Marks	**:**	**75**	**Duration**	**:**	**3 Hr.**

Instructions:

1. **All questions are compulsory**
2. **Draw diagrams / figures wherever necessary**
3. **Figures to right indicate full marks**

Q. 1. Objective Type Questions (Answer all the questions) **(10 x 2) = 20**

i) Draw well-labeled diagram of T.S. of small intestine.

ii) What is artificial respiration? Mention the methods of artificial respiration.

iii) What is Cushing's syndrome?

iv) Mention the name of different parts of Nephron.

v) Write any two examples of neurotransmitters.

vi) Write note on cerebrospinal fluid

vii) Discuss function of Digestive System

viii) Define synapse and neuroglia

ix) Enlist different phases of menstrual cycle.

x) What is gynecomastia?

Q. 2. Long Answers (Answer 2 out of 3) **(2 x 10) = 20**

i) Write Anatomy & Physiology of stomach. Explain Acid (HCl) production & secretion.

ii) Explain in details female reproductive system.

iii) Describe in details the physiology of Urine formation.

Q. 3. Short Answers (Answer 7 out of 9) **(7 x 5) = 35**

i) Explain RAAS pathway.

ii) Write note on spermatogenesis.

iii) Brief on Pituitary gland and hormone secreted by it.

iv) Write Anatomy & Physiology of Lungs.

v) Write brief note on spinal cord.

vi) Enlist organ of Digestive system and its function.

vii) Describe different role of ATP

viii) Describe thyroid gland and hormone produced by it.

ix) Discuss in details structure of Neuron.

------END OF THE PAPER------

31

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

End Semester Supplementary Examination – Summer 2023

Date: 14-09-2023

Course	:	B. Pharmacy	**Sem:**		I
Subject Name	:	Pharmaceutical Inorganic Chemistry	**Subject Code**		BP104T
Max Marks	:	75	**Duration**	:	3 Hr.

Instructions:

1. **All questions are compulsory**
2. **Draw diagrams / figures wherever necessary**
3. **Figures to right indicate full marks**

Q. 1. Objective Type Questions (Answer all the questions) **(10 x 2) = 20**

i) Define Achlorhydria and gives its treatment.

ii) Define astringents with example.

iii) Define Dentifrices and give its example.

iv) Write the reaction involve in the limit test of sulphate.

v) Define antiseptic and disinfectant.

vi) Give the chemical formula and medicinal uses of sodium thiosulphate.

vii) What is the alpha particle decay and give its suitable example?

viii) Give the preparation and uses of $CuSO_4$.

ix) Give the composition of ORS.

x) Define hyponatremia and hypernatremia.

Q. 2. Long Answers (Answer 2 out of 3) **(2 x 10) = 20**

i) Define impurities and describe the various sources of impurities present in pharmaceutical substances with examples.

ii) Define Buffers. Explain the mechanism of buffer action with an example. Briefly discuss the role of Buffers in Pharmacy.

iii) Describe in detail Geiger - Muller counters and Scintillation counters for the measurement of Radio - activity.

Q. 3. Short Answers (Answer 7 out of 9) **(7 x 5) = 35**

i) Define limit test and write down the principle, reaction, procedure involve in the limit test of chloride.

ii) Write a note on cyanide poisoning.

iii) Define and Classify antacids with suitable example and give the ideal properties of Antacid.

iv) Write molecular formula, properties, method of preparation, assay and uses of

sodium chloride.

v) Define Antimicrobial agent. Discuss mechanism of action (MOA) of inorganic antimicrobial agent.

vi) Define and classify expectorant with its mechanism of action (MOA).

vii) Define anticaries agents. Explain how fluoride produces ant-carries activity.

viii) Name the disease caused by iron deficiency? Explain role of iron in the body.

ix) Write the pharmaceutical application of radioactive substance.

------END OF THE PAPER------

39

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

End Semester Examination – Summer 2023

Date:12/09/2023

Course	**:**	**B. Pharmacy**	**Sem: I**		
Subject Name	**:**	**Pharmaceutics I**	**Subject Code**	**:**	**BP103T**
Max Marks	**:**	**75**	**Duration**	**:**	**3 Hr.**

Instructions:

1. **All questions are compulsory**
2. **Draw diagrams / figures wherever necessary**
3. **Figures to right indicate full marks**

Q. 1. Objective Type Questions (Answer all the questions) **(10 x 2) = 20**

i) Give advantages and disadvantages of solid dosage form.

ii) Find out the proof strength of alcohol which is 90%v/v and 30%v/v.

iii) Differentiate between liniment and lotion.

iv) Define a) Drug, b) Dosage form

v) Give the ideal characteristics of dusting powder

vi) Define and classify Incompatibilities.

vii) Write the Young's formula for calculation of child dose.

viii) Define and classify syrup with example.

ix) Give advantages and disadvantages of Suppositories.

x) Classify liquid dosage form.

Q. 2. Long Answers (Answer 2 out of 3) **(2 x 10) = 20**

i) Define emulsion, give its identification tests and explain about stability problems of emulsion

ii) What is posology? Explain in detail various factors affecting dose of drug.

iii) Summarize different parts of prescription and write a note on handling of prescription.

Q. 3. Short Answers (Answer 7 out of 9) **(7 x 5) = 35**

i) Differentiate between flocculated and deflocculated suspension.

ii) Define powder and write its advantages and disadvantages.

iii) Define Prescription and write a note on errors in prescription

iv) Write a note on therapeutic incompatibility.

v) Define ointment and explain ointment bases in detail.

vi) Define and classify dosage form.

vii) Write a note on excipients used in formulation of liquid dosage form.

viii) Write in brief careers in pharmacy.

ix) Describe in brief Displacement value

------END OF THE PAPER------

40

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

End Semester Examination – Summer 2022

Course: B. Pharmacy **Sem: II**

Subject Name: Pharmaceutical Organic Chemistry I **Subject Code: BP202T**

Max Marks: 75 **Date:29/08/2022** **Duration: 3.45 Hr.**

Instructions –

1. All questions are compulsory
2. Answers to MCQs should be written in full sentences
3. Draw diagrams / figures wherever necessary
4. Figures to right indicate full marks

Q. 1. Solve the following Multiple Choice Questions (MCQs) = 20 x 1 = 20 (All questions are compulsory)

i) The IUPAC name of the compound Cl-CH_2-CH_2-CH_2-OH is……

a) 1-chloropropanal b) 3-chloropropanol

c) 3- chloropropane d) 1-chloropropanone

ii) Halogenation of alkanes takes place by ..... mechanism.

a) free radical b) carbanion

c) carbocation d) none of these

iii) In elimination reaction of alkyl halides, the major product is that alkene in which double bond is more highly substituted, is the ……

a) Markovnikov's rule b) Hoffman rule

c) Saytzeff rule d) Antimarkovnikov's rule

iv) The elimination reaction in which rate depends upon concentration of both substrate and base is ……

a) E1 reaction b) E2 reaction

c) SN1 d) none of these

v) In addition of hydrogen halides to alkenes, peroxide effect is observed for …..

a) HCl b) HBr

c) HI d) all of the above

vi) At low temperature addition to conjugated diene gives ……

a) 1,1 addition b) 1,2 addition

c) 1,3 addition

d) 1,4 addition

vii) Which of the following is not a nucleophile?

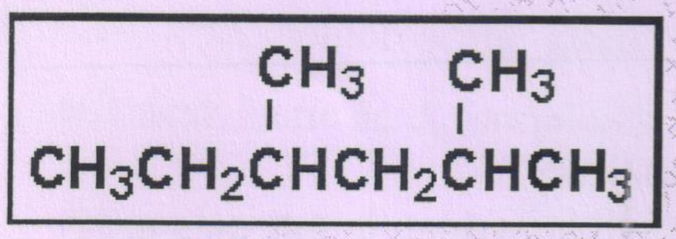
a) $C_2H_5O^-$

b) SCN^-

c) OH^-

d) CH_3^+

viii) Select the correct IUPAC name for



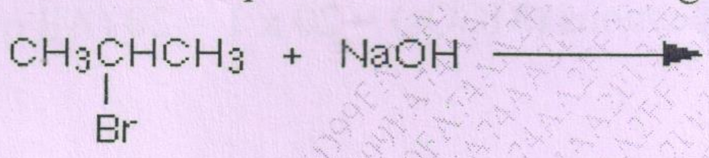
a) 1,1,3-trimethylpentane

b) 2,4-dimethylhexane

c) 3,5-dimethylhexane

d) 3,5,5-trimethylpentane

ix) What is the substitution product of the following reaction?



a) 2-propanol

b) ethanol

c) 1-propanol

d) propane

x) The nucleophilic substitution reaction in which rate of reaction depends upon concentration of only one reactant and rearrangement is possible is known as .....

a) E1 reaction

b) SN1 reaction

c) E2 reaction

d) SN2 reaction

xi) Lucas test is used to distinguish different types of .....

a) alcohols

b) aldehydes

c) ketones

d) amines

xii) Reduction of aldehyde gives .....

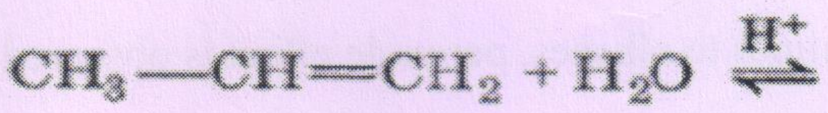
a) Primary alcohol

b) Secondary alcohol

c) Tertiary alcohol

d) Carboxylic acid

xiii) The major product of the following reaction is .....



a)1-propanol

b) 2-propanol

c) Propyne

d) Isopropyl chloride

xiv) Reduction of ketone gives .....

a) primary alcohol
b) secondary alcohol
c) tertiary alcohol
d) carboxylic acid

xv) Addition of water to aldehyde gives.....

a) acetal
b) hydrate
c) cyanohydrin
d) oxime

xvi) A mixture of benzaldehyde and formaldehyde on heating with aqueous NaOH solution gives

a) benzyl alcohol + sodium formate
b) sodium benzoate + methanol
c) benzyl alcohol + methanol
d) sodium benzoate + sodium formate

xvii) The reaction of carboxylic acids with alcohols catalyzed by conc. H_2SO_4 is called ___

a) Dehydration
b) Saponification
c) Esterification
d) Neutralization

xviii) Primary amines can be distinguished from secondary and tertiary amines by reacting with which of the following?

a) Chloroform and alcoholic KOH
b) Methyl iodide
c) Chloroform alone
d) Zinc dust

xix) n-pentane, isopentane and neopentane are .....

a) functional isomers
b) Metamers
c) chain isomers
d) tautomers

xx) The Hinsberg reagent is .....

a) benzenesulphonyl chloride
b) diethyl oxalate
c) zinc chloride
d) none of these

Q. 2. Solve the following questions. = 2 x 10 = 20 (Answer 2 out of 3)

i) What is β – elimination? Explain the mechanism and orientation of E1 reaction. Compare between E1 and E2 reaction.

ii) Explain the mechanism and stereochemistry of SN2 reaction. Add a note on factors affecting SN2 reaction.

iii) Explain, why Aldehydes and ketones are susceptible for nucleophilic addition reactions? Give any two methods for preparation of aldehydes. Write a note on Perkin reaction.

Q. 3. Answer the following questions. = 7 x 5 = 35 (Answer 7 out of 9)

i) Explain the different types of structural isomerism with examples.

ii) Explain the mechanism of halogenation of alkanes.

iii) Explain the qualitative tests for alcohols.

iv) Explain the addition of water and alcohol to aldehydes.

v) Arrange the following compounds in order of increasing acidity and justify your answer.

Chloroacetic acid, formic acid, acetic acid, dichloroacetic acid.

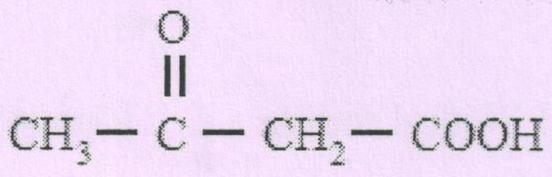
vi) Give the structure and uses of acetic acid, lactic acid, formaldehyde, glycerol, ethyl alcohol and dichloromethane

vii) Explain why aliphatic amines are more basic than ammonia.

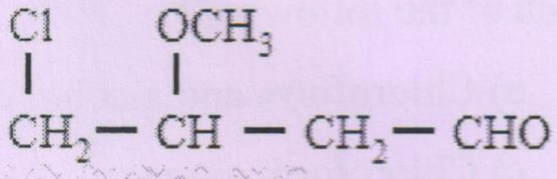
viii) Write a note on Ozonolysis and Diel-alder reaction.

ix) Give the IUPAC names of following compounds.

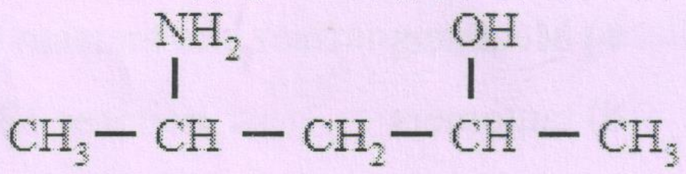
a)



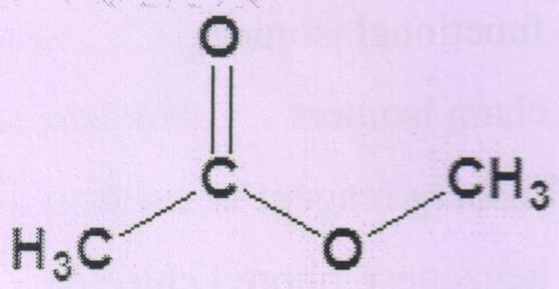
b)



c)



d)



e)



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44

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

End Semester Examination – Winter 2022

Date: 08/05/2023

Course	**:**	**B. Pharmacy**	**Sem**	**:**	**I**
Subject Nam	**:**	**Pharmaceutical Inorganic Chemistry**	**Subject Code**	**:**	**BP104T**
Max Marks	**:**	**75**	**Duration**	**:**	**3 Hr.**

Instructions:

- **All questions are compulsory**
- **Draw diagrams / figures wherever necessary**
- **Figures to right indicate full marks**

Q. 1. Objective Type Questions (Answer all the questions) **(10 x 2) = 20**

i) Define Emetics? Give two examples.

ii) Write down the properties and uses of Boric acid.

iii) Write down the properties and uses of Ammonium Chloride.

iv) Define the terms. i) Acidic Buffer ii) Buffer capacity.

v) What are Radiopharmaceuticals?

vi) Define Expectorant. Give two examples.

vii) Draw a well labeled diagram of Gutzeit apparatus.

viii) Define Cathartics with examples.

ix) Write down reaction involved in limit test for Chloride.

x) Classify Gastrointestinal agents with examples.

Q. 2. Long Answers (Answer 2 out of 3) **(2 x 10) = 20**

i) What are Antimicrobial agents? Explain the mechanism of actions of antimicrobial agents with suitable examples. Add a note on Hydrogen Peroxide.

ii) What is impurity? Enlist and explain sources of impurities in the pharmaceutical substances with examples.

iii) Write down the role of major Extra and Intra cellular electrolytes with suitable examples. Give the composition of ORS.

Q. 3. Short Answers (Answer 7 out of 9) **(7 x 5) = 35**

i) Write down the principle, reaction and procedure involved in the limit test of Iron.

4512

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY,
LONERE-RAIGAD-402103

End Semester Examination – Winter 2022

Course: B. Pharmacy | **Semester: I**
Subject Name: Human Anatomy & Physiology-I | **Subject Code: BP101T**
Date: 04/05/2023 | **Max Marks:75** | **Duration: 3 Hr.**

Instructions:

1. **All questions are compulsory**
2. **Draw diagrams / figures wherever necessary**
3. **Figures to right indicate full marks**

Q. 1. Objective Type Questions (Answer all the questions) **(10 x 2) = 20**

i) Define human anatomy and physiology.
ii) Enlist different systems of human body.
iii) Define homeostasis.
iv) Define tissue and enlist different types of tissue.
v) Give the functions of skeletal system.
vi) How many bones are present in Appendicular skeleton?
vii) Difference between endocrine and exocrine gland.
viii) Define mitosis and meiosis.
ix) What do you mean by cardiac cycle?
x) Define cardiac output and cardiac reserve.

Q. 2. Long Answers (Answer 2 out of 3) **(2 x 10) = 20**

i) Define integumentary system, explain in detail skin with the help of neat labeled diagram and add a note on accessory structure of the skin.
ii) Give details overview of sympathetic and parasympathetic nervous system.
iii) Discuss in detail anatomy and physiology of heart. Add a note on blood flow sequence through the heart.

Q. 3. Short Answers (Answer 7 out of 9) **(7 x 5) = 35**

i) Describe the mechanism of blood coagulation.
ii) Describe in detail ribosomes and endoplasmic reticulum.
iii) Explain in detail passive transport of material across the cell membrane.
iv) Elaborate muscular tissue and connective tissue.
v) Explain anatomy and physiology of Eye .
vi) Write a note on physiology of muscle contraction.
vii) Explain in detail synovial joints.
viii) Write a short note on Hematopoiesis.
ix) Describe in brief lymph node and spleen.

-----END OF THE PAPER-----

45

12

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

End Semester Examination – Winter 2022

Date: 10/05/2023

Course	:	**B. Pharmacy**	**Sem**	:	**I**
Subject Name	:	**Pharmaceutical Analysis-I**	**Subject Code**	:	**BP102T**
Max Marks	:	**75**	**Duration**	:	**3 Hr**

Instructions:

1. All questions are compulsory
2. Draw diagrams / figures wherever necessary
3. Figures to right indicate full marks

Q. 1. Objective Type Questions (Answer all the questions) **(10 x 2) = 20**

i) What is oxidizing agent?

ii) What base according to Lowery-Bronsted theory?

iii) Why potentiometer is also called as pH meter?

iv) Enlist names of limit tests official in Indian Pharmacopeia.

v) What is mean by primary standard?

vi) Give the example of self-indicator and external indicator.

vii) What is mean by equivalent conductance?

viii) What is masking agent?

ix) Define Molarity.

x) What is diazotization titration?

Q. 2. Long Answers (Answer 2 out of 3) **(2 x 10) = 20**

i) What is Gravimetry? Explain the steps involved in Gravimetric Analysis.

ii) Describe the concept conductometric titrations. Explain in detail different types of conductometric titrations along with one example.

iii) What is mean by redox titration? Enlist its types and types of indicators used in redox titration. Write in detail about Iodine titrations.

Q. 3. Short Answers (Answer 7 out of 9) **(7 x 5) = 35**

i) What is impurity? Explain sources of impurities in medicinal agents.

ii) Differentiate between Mohr's and Volhard's method.

iii) What is error? Explain in brief types of errors.

iv) What is potentiometry? Explain types of electrodes used in it along with one example.

v) What are titration curves? Write in brief various acid-base titration curves.

vi) Write the principle involved in polarography. Add a note on DME.

vii) Define Indicator. Add a note on theories of indicators.

viii) What is non-aqueous titration? Write a note on properties and classes of solvents used in it with example.

ix) What is complexometric titration? Explain different classes of complexometric titration along with one example.

——END OF THE PAPER——

57

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

End Semester Examination – Winter 2022

Date: 06/05/2023

Course	**:**	**B. Pharmacy**	**Sem: I**		
Subject Name	**:**	**Pharmaceutics-I**	**Subject Code**	**:**	**BP103T**
Max Marks	**:**	**75**	**Duration**	**:**	**3 Hr.**

Instructions:

1. **All questions are compulsory**
2. **Draw diagrams / figures wherever necessary**
3. **Figures to right indicate full marks**

Q. 1. Objective Type Questions (Answer all the questions) **(10 x 2) = 20**

i) Enlist the ideal characteristics of ointment base.

ii) Define pharmaceutical powder? Enlist advantages of powder.

iii) Differentiate between flocculated & deflocculated suspension

iv) Find the strength of 75% v/v & 45% v/v alcohol in terms of proof spirit?

v) Define suspension and enlist the ideal characteristics of suspension.

vi) What is eutectic mixture? Give one example of it.

vii) Define syrup and classify it.

viii) Classify semisolid dosage form along with example.

ix) Give advantages and disadvantages of liquid dosage form.

x) Define – a) Liniment, b) Lotion

Q. 2. Long Answers (Answer 2 out of 3) **(2 x 10) = 20**

i) Define incompatibility? Enlist different types of it. Explain in detail about physical incompatibility with remedies.

ii) Define Emulsion? Explain in detail method of preparation of emulsion.

iii) Define Suppository. Write advantages and disadvantages of suppository. Explain in details method of preparation of suppositories along with evaluation test of suppository.

Q. 3. Short Answers (Answer 7 out of 9) **(7 x 5) = 35**

i) Define Prescription and explain the various parts of prescription in detail.

ii) Write in brief about various identification tests for emulsion.

iii) Comment on bases used for ointment preparation.

iv) Define & classify dosage form with suitable examples.

v) Write a short note on Throat Paint.

vi) If adult dose of drug is 400mg, what will be the dose of the drug for:
- i) A child of 10 years & ii) 6 months old infant.

vii) Define suspension. Write stability problems of suspension with remedies to overcome it.

viii) Give various types of chemical incompatibilities in detail

ix) Write short note on dusting powder.

-----END OF THE PAPER-----

ii) Define antidote. Give classification of antidote. Discuss properties and uses of Sodium thiosulphate.

iii) Classify Antacids with suitable examples. Add a note on combination of antacids.

iv) Add a note on history of I.P.

v) Write down the various applications of Radioactive substances.

vi) Define Haematinics. Give synonym, properties, method of preparation and uses of $FeSO_4$.

vii) Explain buffer action and buffer equation.

viii) Write short note on astringents.

ix) What are Anticaries agents? Explain the role of fluoride ions in the treatment of Tooth Decay.

——END OF THE PAPER——

484

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE, RAIGAD

END SEMESTER THEORY EXAM – WINTER 2022-23

Course – B Pharmacy Sem – I

Subject Name – Communication Skills Subject Code – BP105T

Max. Marks – 35 Date –12/05/2023 Duration – 1.5 Hrs

Instruction:

- All Questions are compulsory
- Draw diagrams / figures whenever necessary
- Figures to right indicate full marks

Q. 1. Long Answers (Answer 1 out of 2) **(1 × 10) = 10**

i) Explain in detail about steps during Group Discussion.

ii) Define Physical Barriers and explain it.

Q. 2. Short Answers (Answer 5 out of 7) **(5 × 5) = 25**

i) Define Communication and explain it s components.

ii) Discuss about Emotional Barriers.

iii) Define interview and give Do's and don'ts for interview.

iv) Write a note on types of group discussion.

v) Discuss Signs of Active Listening.

vi) Write a note on Body language.

vii) Enlist and explain types of Communication.

-----END OF PAPER-----

50

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE, RAIGAD

END SEMESTER THEORY EXAM – WINTER 2022

Course – B Pharmacy | Sem – I

Subject Name – Remedial Mathematics | Subject Code – BP106RMT

Max Mrks – 35 | Date – 13/05/2023 | Duration – 1.5 Hrs

Instruction:

- All Questions are compulsory
- Draw diagrams / figures whenever necessary
- Figures to right indicate full marks

Q. 1. Long Answers (Answer 1 out of 2) **(1 × 10) = 10**

i) Resolve $\frac{2x+3}{x^2-2x-3}$ into partial fraction

ii) Solve the following Equation

$$\frac{dy}{dx} + \frac{\cos x}{\sin x} y = \cos x.$$

Q. 2. Short Answers (Answer 5 out of 7) **(5 × 5) = 25**

i) Define differentiation and successive differentiation and give there example

ii) Explain Types of Matrix.

iii) Differentiate sin X with respect to cos X

iv) Give the formula for

$$\frac{d}{dx}(\sin x)$$

v) Write 43/2 = 8 in logarithmic form

vi) Write $5^0 = 1$ in logarithmic form

vii) Note on Proper and Improper fraction

-----END OF PAPER-----

51

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

Supplementary Semester Examination – Winter 2024

Date: 21/12/2024

Course	**:**	**B. Pharmacy**	**Sem:**		**I**
Subject Name	**:**	**Pharmaceutical Analysis-I**	**Subject Code**	**:**	**BP102T**
Max Marks	**:**	**75**	**Duration**	**:**	**3 Hr.**

Instructions:

1. **All questions are compulsory**
2. **Draw diagrams / figures wherever necessary**
3. **Figures to right indicate full marks**

Q. 1. Objective Type Questions (Answer all the questions) **(10 x 2) = 20**

i) Write the principle and reaction involved in the limit test for chlorides.

ii) Explain the concept of oxidation and reduction with example.

iii) Enlist the types of conductometric titrations.

iv) Define and classify errors.

v) Write a note on cerimetry.

vi) Differentiate between co-precipitation and post precipitation.

vii) Define buffer and enlist types of buffers.

viii) Write a short note on diazotization titration.

ix) Describe briefly masking and demasking agents.

x) Differentiate between Iodimetry and Iodometry.

Q. 2. Long Answers (Answer 2 out of 3) **(2 x 10) = 20**

i) Explain various titration curves for aqueous acid base titrations.

ii) Describe methods of end point detection in precipitation titrations.

iii) Write a note on impurities and sources of impurities in medicinal agents.

Q. 3. Short Answers (Answer 7 out of 9) **(7 x 5) = 35**

i) What are primary and secondary standard substances? Give the requirements to be satisfied by a primary standard substance.

ii) Describe acid base indicator theories.

iii) Explain the mechanism of complex formation and add a note on metal indicators.

iv) Define reference electrode. Explain the construction and working of standard hydrogen electrode.

v) Write a note on properties of solvents used in non-aqueous titration.

vi) Draw a neat, labelled diagram of Gutzeit apparatus and explain the principle behind Arsenic limit test.

vii) Explain construction and working of dropping mercury electrode.

viii) Explain the principle and steps involved in gravimetric analysis.

ix) Explain preparation and standardization of 1M Sodium Hydroxide solution.

-----END OF THE PAPER-----

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53

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

End Semester Examination – Summer 2022

Course: B. Pharmacy **Sem: II**

Subject Name: Biochemistry **Subject Code: BP203T**

Max Marks: 75 **Date:05/09/2022** **Duration: 3.45 Hr.**

Instructions –

1. **All questions are compulsory**
2. **Answers to MCQs should be written in full sentences**
3. **Draw diagrams / figures wherever necessary**
4. **Figures to right indicate full marks**

Q. 1. Multiple Choice Questions (MCQs) = 20 x 1 = 20 (All the questions are compulsory)

i. _____enzymes that catalyze the transfer of functional groups.

a) Transferases b) Hydrolases

c) Oxidoreductase d) Lysases

ii. The two monosaccharides differ from each other in their configuration around a single specific carbon atom, they are referred to as _____ of each other.

a) Tautomer b) Epimer

c) Enantiomer d) Anomer

iii. Polysaccharides are _____.

a) Oils b) Proteins

c) Fats d) Polymers

iv. Which one of the following amino acids contains imino group?

a) Tryptophan b) Tyrosine

c) Proline d) Leucine

v. The cyclopentanoperhydrophenanthrene ring is present in _____.

a) Cholesterol b) Cetyl alcohol

c) Melatonin d) All of the above

vi. A positive Benedict's test is NOT given by _____?

a) Lactose b) Sucrose

F5E2BDA4D1A51116DFECA6EBCDC5D9E9

54

c) Maltose d) Glucose

vii. The conversion of alanine to glucose is termed as _____.

a) Glycolysis b) Transformation

c) Glycogenesis d) Gluconeogenesis

viii. Pentose phosphate pathway generating two important products _____.

a) Pentose sugar and NADPH b) Pentose sugar and NADH

c) Pentose sugars and erythrose sugars d) Pentose sugars and sedoheptulose

ix. The enzyme _____ deficiency is associated with resistance to malaria.

a) Glucose-6-Phosphate dehydrogenase b) Glucose-6-Phosphate hydrogenase

c) Glucose-5-Phosphate dehydrogenase d) Glucose-5-Phosphate hydrogenase

x. Obesity is accumulation of _____ in the body.

a) Water b) NaCl

c) Fat d) Protein

xi. Waxes contain higher alcohols named as_____.

a) Methyl b) Ethyl

c) Heptyl d) Cetyl

xii. The Enzyme _____ is responsible for black urine disease.

a) Homogentisate oxidase b) Phenyl alanine hydroxylase

c)Tyrosine transaminase d) Carboxylase

xiii. The transfer of an amino (NH_2) group from an amino acid to a keto acid is known as_____.

a) Transformation b) Transition

c) Transamination d) Deamination

xiv. In RNA, the complementary base of adenine is _____

a) Cytosine b) Uracil

c) Guanine d) Thymine

xv. All are the codons stop the signal in protein synthesis except_____.

a) UAA b) UAG

c) UAC d) UGA

xvi. The enzyme primase in association with single-stranded binding proteins forms a complex and produces _____.

F5E2BDA4D1A51116DFECA6EBCDC5D9E9

a) RNA primer b) RNA polymer

c) DNA primer d) DNA polymer

xvii. Enzymes lose the catalytic activity at temperature above 70 °C due to _____.

a) Deregulation b) Disturbance

c) Distortion d) Denaturation

xviii. The reaction given by two or more peptide linkages is _____.

a) Biuret test b) Ninhydrin test

c) Xanthoproteic test d) Pauley's test

xix. The enzyme _____ is used in the treatment of leukemias.

a) Asparaginase b) Streptokinase

c) Fructokinase d) Hydrogenase

xx. The functional unit of enzyme is known as_____.

a) Apoenzyme b) Coenzyme

c) Holoenzyme d) Monomeric enzyme

Q. 2. Long Answers = 2 x 10 = 20 (Answer 2 out of 3)

i. Explain in detail β-oxidation of palmitic acid along with the energetics.
ii. Define enzyme inhibitors and discuss the different types of enzyme inhibitors.
iii. Describe the TCA cycle and explain the reaction involved in it with energetics.

Q. 3. Short Answers = 7 x 5 = 35 (Answer 7 out of 9)

i. Draw the following Structures
   a) Glucose b) Tryptophan c) Tyrosine d) Adenine e) Dihydroxy acetone
ii. Describe the classification of proteins based on their chemical nature with suitable example.
iii. Define the glycolysis and explain the pathway for glycolysis.
iv. Give brief account on biological significance and biosynthesis of adrenaline and nor-adrenaline.
v. Explain in detail pathway of ornithine cycle.
vi. Write a note on formation and utilization ketone bodies
vii. Differentiate between DNA & RNA. Enlist the enzyme involve in DNA replication.
viii. Define transcription and translation and discuss the inhibitors of protein synthesis.
ix. Define and Classify enzyme as per IUB system with example.

------END OF THE PAPER------

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56

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

End Semester Examination – Summer 2022

Course: B. Pharmacy **Sem: II**

Subject Name: Pathophysiology **Subject Code: BP 204T**

Max Marks: 75 **Date: 07/09/2022** **Duration: 3.45 Hrs**

Instructions –

1. **All questions are compulsory**
2. **Answers to MCQs should be written in full sentences**
3. **Draw diagrams / figures wherever necessary**
4. **Figures to right indicate full marks**

Q. 1. Multiple Choice Questions (MCQs) = 20 x 1 = 20 (All the questions are compulsory)

i) Deficiency of which clotting factor causes hemophilia A?

a) VII b) VIII

c) IX d) X

ii) Which type of diabetes generally occurs at juvenile age?

a) Type I b) Type II

c) Type III d) Type IV

iii) Which of the following can trigger atherosclerosis?

a) High blood pressure b) High levels of cholesterol

c) Smoking d) All of above

iv) Which disease is characterized by deficiency of dopamine?

a) Alzheimers disease b) Parkinson's disease

c) Schizophrenia d) None of these

v) Gout is a metabolic disorder characterized by elevated level of

a) Serum cholesterol b) Serum bilirubin

c) Serum uric acid d) None

vi) Low level of oxygen in blood is called as

A) Anaemia b) Anorexia

c) Hypoxia d) Hypercapnia

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vii) Loss of appetite is known as

a) Insomnia b) Anorexia

c) Alopecia d) Nausea

viii) CHF occurs due to

a) Intrinsic pump failure b) Increased workload on the heart

c) Impaired filling of cardiac chamber d) All of these

ix) Which organ is majorly affected by hepatitis

a) Liver b) Heart

c) kidney d) brain

x) The term arthritis refers to

a) Stiffnes in joint b) inflammation in joints

c) Accute pain in joint d) None of these

xi) Programmed cell death known as

a) Cytolysis b) Apoptosis

c) Necrosis d) Proptosis

xii) Treatment of renal failure includes

a) Dialysis b) Diuretics

c) Both d) None

xiii) Meningitis is refer to

a) Inflammation of the brain b) Blockage in nerves

c) Both A & B d) None of these

xiv) Megaloblastic anaemia is caused by

a) Iron deficiency b) impaired DNA synthesis

c) Calcium deficiency d) oxygen deficiency

xv) Which type of hypertension has no identifiable medical cause?

a) Primary b) Secondary

c) Both d) None

xvi) The causative organism for Typhoid is

a) Salmonella typhi b) Mycobacterium Leprae

c) Mycobacterium Tuberculosis d) Clostridium perfringes

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xvii) HIV attacks a certain kind of cell in the immune system……

a) RBC b) WBC

c) Platelets d) All

xviii) Cancer of the blood cell is referred to as

a) Kaposi sarcoma b) Basal cell carcinoma

c) Mesothelioma d) Leukamia

xix) Ischemic heart disease includes

a) Angina pectoris b) Atherosclerosis

c) Both a and b d) None

xx) Modes of transmission of AIDS

a) Sexual contact b) infected needle

c) Infected blood d) All of these

Q. 2. Long Answers) = 2 x 10 = 20 (Answer 2 out of 3)

i) Explain the pathophysiology of diabetes mellitus

ii) What is cellular adaptation? Explain different types of cellular adaptations with their causes.

iii) What is cancer? Give its classification, etiology, pathogenesis & treatment.

Q. 3. Short Answers = 7 x 5 = 35 (Answer 7 out of 9)

i) Explain the etiology and pathogenesis of Jaundice.

ii) What are the clinical manifestations and treatment of Parkinson's disease?

iii) Explain components & types of feedback system.

iv) Define hypertension. Give its etiology & pathogenesis.

v) Write a note on etiology, clinical manifestation & treatment of asthma.

vi) Define AIDS. Give its modes of transmission & prevention.

vii) Discuss the pathogenesis & clinical manifestation of rheumatoid arthritis.

viii) Give the causes, pathogenesis & treatment of leprosy.

ix) Explain the etiology & pathogenesis of peptic ulcer.

------END OF THE PAPER------

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57

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

End Semester Examination – Summer 2022

Course: B. Pharmacy **Sem: II**

Subject Name: Biochemistry **Subject Code: BP203T**

Max Marks: 75 **Date:05/09/2022** **Duration: 3.45 Hr.**

Instructions –

1. **All questions are compulsory**
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3. **Draw diagrams / figures wherever necessary**
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Q. 1. Multiple Choice Questions (MCQs) = 20 x 1 = 20 (All the questions are compulsory)

i. _____enzymes that catalyze the transfer of functional groups.

a) Transferases b) Hydrolases

c) Oxidoreductase d) Lysases

ii. The two monosaccharides differ from each other in their configuration around a single specific carbon atom, they are referred to as _____ of each other.

a) Tautomer b) Epimer

c) Enantiomer d) Anomer

iii. Polysaccharides are _____.

a) Oils b) Proteins

c) Fats d) Polymers

iv. Which one of the following amino acids contains imino group?

a) Tryptophan b) Tyrosine

c) Proline d) Leucine

v. The cyclopentanoperhydrophenanthrene ring is present in _____.

a) Cholesterol b) Cetyl alcohol

c) Melatonin d) All of the above

vi. A positive Benedict's test is NOT given by _____?

a) Lactose b) Sucrose

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60

c) Maltose d) Glucose

vii. The conversion of alanine to glucose is termed as _____.

a) Glycolysis b) Transformation

c) Glycogenesis d) Gluconeogenesis

viii. Pentose phosphate pathway generating two important products _____.

a) Pentose sugar and NADPH b) Pentose sugar and NADH

c) Pentose sugars and erythrose sugars d) Pentose sugars and sedoheptulose

ix. The enzyme _____ deficiency is associated with resistance to malaria.

a) Glucose-6-Phosphate dehydrogenase b) Glucose-6-Phosphate hydrogenase

c) Glucose-5-Phosphate dehydrogenase d) Glucose-5-Phosphate hydrogenase

x. Obesity is accumulation of _____ in the body.

a) Water b) NaCl

c) Fat d) Protein

xi. Waxes contain higher alcohols named as_____.

a) Methyl b) Ethyl

c) Heptyl d) Cetyl

xii. The Enzyme _____ is responsible for black urine disease.

a) Homogentisate oxidase b) Phenyl alanine hydroxylase

c)Tyrosine transaminase d) Carboxylase

xiii. The transfer of an amino (NH_2) group from an amino acid to a keto acid is known as_____.

a) Transformation b) Transition

c) Transamination d) Deamination

xiv. In RNA, the complementary base of adenine is _____

a) Cytosine b) Uracil

c) Guanine d) Thymine

xv. All are the codons stop the signal in protein synthesis except_____.

a) UAA b) UAG

c) UAC d) UGA

xvi. The enzyme primase in association with single-stranded binding proteins forms a complex and produces _____.

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a) RNA primer b) RNA polymer

c) DNA primer d) DNA polymer

xvii. Enzymes lose the catalytic activity at temperature above 70 °C due to _____.

a) Deregulation b) Disturbance

c) Distortion d) Denaturation

xviii. The reaction given by two or more peptide linkages is _____.

a) Biuret test b) Ninhydrin test

c) Xanthoproteic test d) Pauley's test

xix. The enzyme _____ is used in the treatment of leukemias.

a) Asparaginase b) Streptokinase

c) Fructokinase d) Hydrogenase

xx. The functional unit of enzyme is known as_____.

a) Apoenzyme b) Coenzyme

c) Holoenzyme d) Monomeric enzyme

Q. 2. Long Answers = 2 x 10 = 20 (Answer 2 out of 3)

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62

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

End Semester Examination – Summer 2022

Course: B. Pharmacy **Sem: II**

Subject Name: Pharmaceutical Organic Chemistry I **Subject Code: BP202T**

Max Marks: 75 **Date:29/08/2022** **Duration: 3.45 Hr.**

Instructions –

1. All questions are compulsory
2. Answers to MCQs should be written in full sentences
3. Draw diagrams / figures wherever necessary
4. Figures to right indicate full marks

Q. 1. Solve the following Multiple Choice Questions (MCQs) = 20 x 1 = 20 (All questions are compulsory)

i) The IUPAC name of the compound Cl-CH_2-CH_2-CH_2-OH is……

a) 1-chloropropanal b) 3-chloropropanol

c) 3- chloropropane d) 1-chloropropanone

ii) Halogenation of alkanes takes place by ..... mechanism.

a) free radical b) carbanion

c) carbocation d) none of these

iii) In elimination reaction of alkyl halides, the major product is that alkene in which double bond is more highly substituted, is the ……

a) Markovnikov's rule b) Hoffman rule

c) Saytzeff rule d) Antimarkovnikov's rule

iv) The elimination reaction in which rate depends upon concentration of both substrate and base is ……

a) E1 reaction b) E2 reaction

c) SN1 d) none of these

v) In addition of hydrogen halides to alkenes, peroxide effect is observed for …..

a) HCl b) HBr

c) HI d) all of the above

vi) At low temperature addition to conjugated diene gives ……

a) 1,1 addition b) 1,2 addition

c) 1,3 addition

d) 1,4 addition

vii) Which of the following is not a nucleophile?

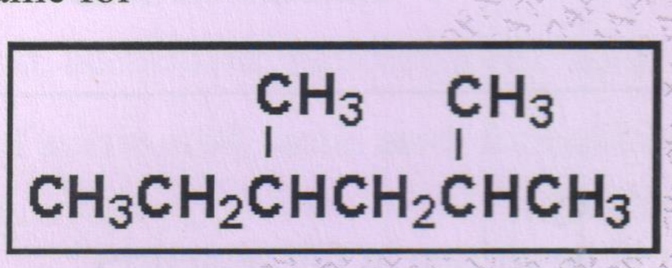
a) $C_2H_5O^-$

b) SCN^-

c) OH^-

d) CH_3^+

viii) Select the correct IUPAC name for



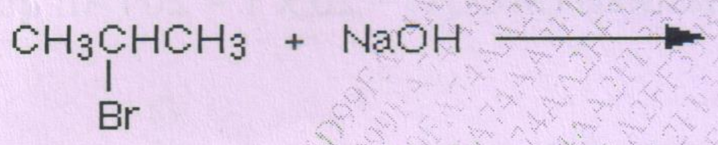
a) 1,1,3-trimethylpentane

b) 2,4-dimethylhexane

c) 3,5-dimethylhexane

d) 3,5,5-trimethylpentane

ix) What is the substitution product of the following reaction?



a) 2-propanol

b) ethanol

c) 1-propanol

d) propane

x) The nucleophilic substitution reaction in which rate of reaction depends upon concentration of only one reactant and rearrangement is possible is known as .....

a) E1 reaction

b) SN1 reaction

c) E2 reaction

d) SN2 reaction

xi) Lucas test is used to distinguish different types of .....

a) alcohols

b) aldehydes

c) ketones

d) amines

xii) Reduction of aldehyde gives .....

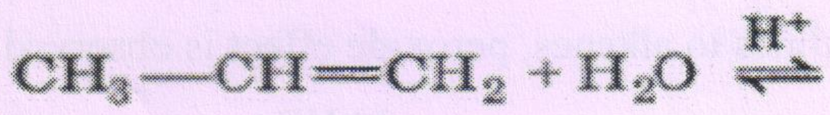
a) Primary alcohol

b) Secondary alcohol

c) Tertiary alcohol

d) Carboxylic acid

xiii) The major product of the following reaction is .....



a)1-propanol

b) 2-propanol

c) Propyne

d) Isopropyl chloride

xiv) Reduction of ketone gives .....

a) primary alcohol
b) secondary alcohol
c) tertiary alcohol
d) carboxylic acid

xv) Addition of water to aldehyde gives.....

a) acetal
b) hydrate
c) cyanohydrin
d) oxime

xvi) A mixture of benzaldehyde and formaldehyde on heating with aqueous NaOH solution gives

a) benzyl alcohol + sodium formate
b) sodium benzoate + methanol
c) benzyl alcohol + methanol
d) sodium benzoate + sodium formate

xvii) The reaction of carboxylic acids with alcohols catalyzed by conc. H_2SO_4 is called ___

a) Dehydration
b) Saponification
c) Esterification
d) Neutralization

xviii) Primary amines can be distinguished from secondary and tertiary amines by reacting with which of the following?

a) Chloroform and alcoholic KOH
b) Methyl iodide
c) Chloroform alone
d) Zinc dust

xix) n-pentane, isopentane and neopentane are .....

a) functional isomers
b) Metamers
c) chain isomers
d) tautomers

xx) The Hinsberg reagent is .....

a) benzenesulphonyl chloride
b) diethyl oxalate
c) zinc chloride
d) none of these

Q. 2. Solve the following questions. = 2 x 10 = 20 (Answer 2 out of 3)

i) What is β – elimination? Explain the mechanism and orientation of E1 reaction. Compare between E1 and E2 reaction.

ii) Explain the mechanism and stereochemistry of SN2 reaction. Add a note on factors affecting SN2 reaction.

iii) Explain, why Aldehydes and ketones are susceptible for nucleophilic addition reactions? Give any two methods for preparation of aldehydes. Write a note on Perkin reaction.

Q. 3. Answer the following questions. = 7 x 5 = 35 (Answer 7 out of 9)

i) Explain the different types of structural isomerism with examples.

ii) Explain the mechanism of halogenation of alkanes.

iii) Explain the qualitative tests for alcohols.

iv) Explain the addition of water and alcohol to aldehydes.

v) Arrange the following compounds in order of increasing acidity and justify your answer.

Chloroacetic acid, formic acid, acetic acid, dichloroacetic acid.

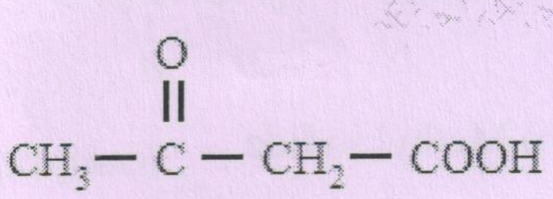
vi) Give the structure and uses of acetic acid, lactic acid, formaldehyde, glycerol, ethyl alcohol and dichloromethane

vii) Explain why aliphatic amines are more basic than ammonia.

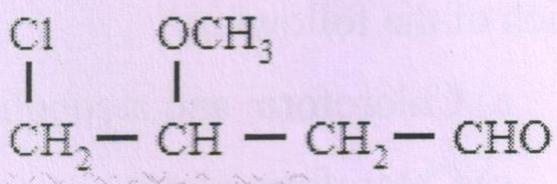
viii) Write a note on Ozonolysis and Diel-alder reaction.

ix) Give the IUPAC names of following compounds.

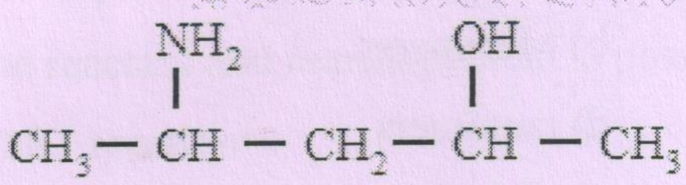
a)



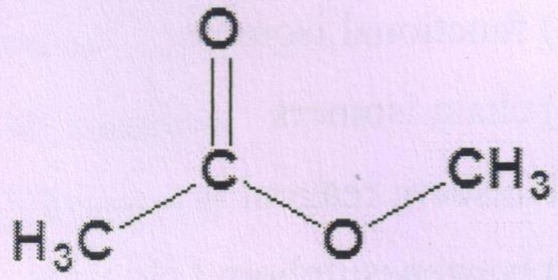
b)



c)



d)



e)



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66

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

End Semester Examination – Summer 2022

Course: B. Pharmacy **Sem: II**

Subject Name: HUMAN ANATOMY AND PHYSIOLOGY-II **Subject Code: BP201T**

Max Marks: 75 **Date: 25/08/2022** **Duration: 3.45 Hr.**

Instructions –

1. **All questions are compulsory**
2. **Answers to MCQs should be written in full sentences**
3. **Draw diagrams / figures wherever necessary**
4. **Figures to right indicate full marks**

Q. 1. Multiple Choice Questions (MCQs) = 20 x 1 = 20 (All the questions are compulsory)

i) The alpha cells of Islets of Langerhans secretes

a. Glycogen b. Insulin

c. Glucose d. Glucagon

ii)Bolus will be converted into chyme when it_____

a. Mix with saliva b. Mix with gastric juice

c. Mix with amylase C. Mix with intestinal juice

iii)What is the major function of large intestine

a. Absorption of food b. Absorption of water

c. Microbial activity d. Propulsive activity

iv)Sinusoid is the space present between

a. Two cells b. Two lobes

c. Two plates d. Cells within plate

v)Trypsinogen is converted into trypsin in the presence of

a. Enterokinase b.Gastric lipase

c. Enteric lipase d. Trypsinase

vi)"Cerebral aqueduct" is present between

a.Two lateral ventricles

b.Lateral ventricle and third ventricle

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c.Third ventricle and fourth ventricle

d.Fourth and fifth ventricle

vii)When individual is lying on side, what will be the pressure of CSF?

a. 10 cm of water

b. 20 cm of water

c. 30 cm of water

d. 40 cm of water

viii)Unipolar neuron contains

a.One dendrite and one axon

b. One dendrite or one axon

c Only dendrite

d.Only axon

ix)Which of the following is major neurotransmitter present in sympathetic nervous system?

a. Adrenaline

b. Nor-adrenaline

c. Dopamine

d. Acetylcholine

x)Fallopian tube is also known as

a.Uterine tube

b.Non-uterine tube

c.Oviducts

d.Both a and c

xi)Vital capacity is the sum of

a. Inspiratory reserve volume + Expiratory reserve volume

b. Inspiratory reserve volume + Expiratory reserve volume + Residual volume

c. Inspiratory reserve volume + Residual volume

d. Inspiratory reserve volume + Expiratory reserve volume + Tidal volume

xii)Transcription means

a. Conversion of DNA to Protein

b. Conversion of DNA to m-RNA

c. Conversion of m-RNA to Protein

d. Conversion of m-RNA to DNA

xiii)Which of the process is involve in biosynthesis of ATP?

a. Substrate level phosphorylation

b. Oxidative phosphorylation

c. Photophosphorylation

d. All of the above

xiv)Progesterone is secreted from

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a. Endometrium
b. Myometrium
c. Corpus luteum
d. Corpus albicans

xv)Micturition process is controlled by

a. Voluntary nerves
b.In-voluntary nerves
c. Both a and b
d. None of the above

xvi)Which of the following is the secondary messenger?

a. c-AMP
b. G-Protein
c. d-ATP
d.t-RNA

xvii) Capillary hydrostatic pressure during filtration is built in the glomerulus as

a. size of Bowman's capsule is significantly large
b. an afferent arteriole is narrow compared to efferent
c. Bowman's capsule is cup-shaped
d. an efferent arteriole is narrow compared to afferent

xviii)Which of the following changes occur in diaphragm and intercostal muscles during expiration

a.Internal intercostal muscles relax and diaphragm contracts
b. External intercostal muscles relax and diaphragm contracts
c.Internal intercostal muscles contract and diaphragm relax
d. Internal intercostal muscles relax and diaphragm relax

xix) Hypersecretion of human growth hormone leads to

a. Dwarfism
b. Gigantism
c. Acromegaly
d. Both b and c

xx) The secretion of several anterior pituitary hormones are governed by other hormones from

a. Hypothalamus
b. Thyroid gland
c. Adrenal gland
d. Pancreatic lobes

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Q. 2. Long Answers) = 2 x 10 = 20 (Answer 2 out of 3)

i)Enlist all the organs of digestive system. Write a detail note on small intestine.

ii)Draw neat labelled diagram of neuron and explain the neurophysiology.

iii)Explain in detail physiology of urine formation.

Q. 3. Short Answers = 7 x 5 = 35 (Answer 7 out of 9)

i)Describe the different roles of ATP.

ii)Write a note on meninges.

iii)Explain RAAS Pathway.

iv)Write a note on posterior pituitary gland.

v)Discuss the different phases of menstrual cycle.

vi)Write a note on blood glucose regulation.

vii) Explain different types of lung volumes and capacities.

viii)Draw the neat labelled diagram of sperm and shortly explain spermatogenesis.

ix)Discuss the translation process.

------END OF THE PAPER------

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70

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

End Semester Examination – Summer 2022

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Subject Name: HUMAN ANATOMY AND PHYSIOLOGY-II **Subject Code: BP201T**

Max Marks: 75 **Date: 25/08/2022** **Duration: 3.45 Hr.**

Instructions –

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Q. 3. Short Answers = 7 x 5 = 35 (Answer 7 out of 9)

i)Describe the different roles of ATP.

ii)Write a note on meninges.

iii)Explain RAAS Pathway.

iv)Write a note on posterior pituitary gland.

v)Discuss the different phases of menstrual cycle.

vi)Write a note on blood glucose regulation.

vii) Explain different types of lung volumes and capacities.

viii)Draw the neat labelled diagram of sperm and shortly explain spermatogenesis.

ix)Discuss the translation process.

------END OF THE PAPER------

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74

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

back

Supplementary End Semester Examination – Summer 2020

Course: B. Pharmacy **Sem:** I

Subject Name: Human anatomy and physiology - I **Subject Code: BP101T**

Max Marks: 75 **Date:**25/08/2022 **Duration:** 3.45 Hrs.

Instructions –

1. **All questions are compulsory**
2. **Answers to MCQs should be written in full sentences**
3. **Draw diagrams / figures wherever necessary**
4. **Figures to right indicate full marks**

Q. No. 1 Select the correct answer from multiple choice questions. (20 x 1) **20 M**

1. The type of organelle is primarily involved in the synthesis of oils, phospholipids, and Steroidal hormone?
   A. Ribosome B. Lysosome
   C. Smooth endoplasmic reticulum D. Mitochondrion
2. The muscle tissue is multinucleate, voluntary, and bears striations.
   A. Skeletal muscle B. Smooth muscle
   C. Multiunit smooth muscle D. Cardiac muscle
3. The layer is only found in the epidermis of the lips, palms, and soles.
   A. Stratum lucidum B. Stratum corneum
   C. Stratum spinosum D. Stratum granulosum
4. Detoxification is a characteristic function of type of organelle in cell.
   A. Mitochondria B. Golgi apparatus
   C. Nucleus D. Peroxisome
5. _____ detects touch stimuli and transmits these signals to sensory nerves.
   A. Melanocytes B. Merkel cells
   C. Keratinocytes D. Langerhans cells
6. The following substance is not responsible for skin color
   A. Carotene B. Melanin
   C. Keratin D. Hemoglobin
7. Platelets are created from type of cell.
   A. Melanocytes B. Astrocytes
   C. Macrophages D. Megakaryocytes
8. Albumin, globulins, and fibrinogen are examples of
   A. Formed elements. B. Platelets
   C. Plasma proteins D. Granulocytes
9. The chemical is involved in the breakdown of a clot (fibrinolysis).

75

A. Fibrinogen.
B. Lymphocyte
C. Heparin
D. Plasmin

10. Branches of lymph capillaries inside villi of intestine are termed as
A. Lymph nodes
B. Lacteals
C. Thoracic lymph duct
D. Lymph capillary

11. The function of lymphatic system
A. Immunity
B. Transports lipids from GIT to the blood
C. Drains excess interstitial fluid
D. All of the above

12. The functional unit of contraction in a skeletal muscle fiber is the _____.
A. Myofibril
B. Myofilament
C. Sarcomere
D. Sarcoplasmic reticulum

13. The ribs, sternum and scapulae are all what type of bone?
A. Long
B. Flat
C. Short
D. Irregular

14. The fibrous bands that connects two bones in a joint are
A. Cartilage
B. Tendons
C. Ligaments
D. Strings

15. In the human eye, the photosensitive compound is composed of
A. Guanosine and retinol
B. Transducin and retinene
C. Opsin and retinol
D. Opsin and retinal

16. The term "gustation" explicitly refers to which sense?
A. Taste
B. Smell
C. Hearing
D. Touch

17. The following nerves cause the adrenal medulla to release epinephrine and norepinephrine.
A. Somatic
B. Sympathetic
C. Parasympathetic
D. all of the above

18. If individual has Heart rate of 60, Stroke rate of 150 ml Cardiac output is
A. 900 ml
B. 9000 ml
C. 2.5 ml
D. 25 ml

19. The layer of the heart responsible for contraction is the
A. Myocardium.
B. Pericardium
C. Endocardium.
D. Epicardium.

20. The second heart sound (dubb) is associated with the closure of
A. Tricuspid valve
B. Semilunar valves
C. Bicuspid valve
D. Tricuspid & bicuspid valves.

Q. No. 2 Long Answer questions (Any Two) (10X2=20) (20 M)

A. Draw a neat and well labeled diagram of Cell and Discuss in detail Protein synthesis in cell.

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B. Discuss in feature structure and function of Skin.

C. Draw a neat and labeled diagram of showing conducting element of heart, give details conducting system of heart and cardiac cycle.

Q. No. 3 Short Answer Question (any seven) **(7X5=35)** **(35)**

a) Write a note on epithelial tissue.

b) Explain physiology of skeletal muscle contraction.

c) Write a note on Cell Signaling.

d) Summarize in short Renin angiotensin aldosterone system

e) Describe ABO and Rh system of Blood Group

f) Explain in detail mechanism of blood coagulation.

g) Draw neat labeled diagram of lymph node and discuss its structure and function

h) Discuss Interior of eye ball

i) Explain the physiology of smell.

The End

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77

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY

LONERE – RAIGAD – 402 103

Winter Semester Examination – December – 2019

Course: B.Pharm. **Semester: I**

Subject: Pharmaceutical Analysis-I (BP102T) **Marks: 75**

Date: 27/12/2019 **Time: 3hrs**

Instructions: *i) All questions are compulsory*

ii) Figures to the right indicate full marks

iii) Draw the diagrams or flow charts wherever necessary.

Q.No.1 Attempt the following questions (All Questions Compulsory) **(20 Marks)**

1. Concentration is not expressed is ----------.
   A. w/v
   B. v/w
   C. v/v
   D. w/w
2. Ionic product of water is ----------.
   A. 1×10^{-13}
   B. 1×10^{-14}
   C. 1×10^{-15}
   D. 1×10^{-16}
3. Which of the following is primary standard substance?
   A. Oxalic acid
   B. Sodium Hydroxide
   C. Potassium Permagnate
   D. All of Above
4. Indeterminate error is also called as ----------.
   A. Operational error
   B. Instrumental error
   C. Error of method
   D. Random error
5. How many grams of Sodium hydroxide will be required to prepare 250 ml of 0.1N solution?
   A. 10
   B. 1
   C. 0.1
   D. 0.01
6. What is color change interval of methyl Red (pH Change)?
   A. 0.8 – 1.2
   B. 1.2 – 2.8
   C. 2.8 – 3.6
   D. 4.2 – 6.3
7. Number of moles of solute per 1000 gm of solvent gives ---------- solution.
   A. 1 Molar
   B. 1 Molal
   C. 1 Normal
   D. 1 Percent
8. In titration of weak base with weak acid, the solution at equivalence point will be ----------.
   A. Neutral
   B. Acidic

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C. Basic
D. No change in pH

9. Methanol is ---------- solvent used in Non-aqueous titration.
   A. Aprotic
   B. Protogenic
   C. Protophilic
   D. Amphiprotic
10. The indicator employed in Volhards method is ----------.
   A. Ferric ammonium sulphate
   B. Ferroin
   C. Crystal violet
   D. None of these
11. Dead stop end point method is also known as ----------.
   A. Potentiometry
   B. Conductometry
   C. Titration with 2 indicator electrodes
   D. Titration with indicator and reference electrode
12. The conductance that changes on dilution is ---------- conductance.
   A. Molar
   B. Equivalent
   C. Specific
   D. All of these
13. Drop of mercury in DME acts as ---------- electrode.
   A. Reference
   B. Indicator
   C. Hydrogen
   D. Calomel
14. Titrations with standard solution of Iodine are termed as ----------.
   A. Iodometry
   B. Iodimetry
   C. Redox
   D. All of these
15. EDTA is popularly employed as a ----------.
   A. Multidentate ligand
   B. Complexing agent
   C. Chelating agent
   D. All of these
16. Ferrous sulphate is assayed by ---------- titration.
   A. Ceriometry
   B. Iodimetry
   C. Mercurometry
   D. Bromatometry
17. Which of the following Titrant is act as self-indicator?
   A. Potassium Permagnate
   B. Silver Nitrate
   C. Sodium Hydroxide
   D. Hydrochloric Acid
18. Diazotization method is carried out for following compound ----------.
   A. Aromatic Amine
   B. Phenol
   C. Aromatic Aldehyde
   D. Aromatic Ketone

19. Glass electrode is example of ---------- electrode.

A. Reference
B. Ion selective
C. Indicator
D. Both B & C

20. What is emf ----------.

A. Electro motive force
B. Electron motion force
C. Electro motion force
D. All of these

Q.No.2 Attempt any TWO questions of the following: **(20 Marks)**

A] Explain different types of Acid-Base titration; add a note on neutralization curve.

B] Explain various steps involved in gravimetric analysis.

C] Give the theory behind conductometry. Explain different shapes of graphs obtained during acid-base titrations. Define different conductances and add note on effect of dilution on conductances.

Q.No.3 Attempt any SEVEN questions of the following: **(35 Marks)**

A] Write a note on theories of indicator.

B] Explain types of errors and methods to minimize the errors.

C] Write a note on Diazotization method.

D] Differentiate between Mohr's and Volhard's method.

E] Write a note on different types of Complexometric titration.

F] Write in details about solvents used in non-aqueous titrations with appropriate examples.

G] Explain principle involved in conductometric titrations and give its applications.

H] Write short note on reference electrodes.

I] Give basic principle of Polarography. Explain construction and working of DME with its advantages and disadvantages.

----- END OF PAPER -----

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80

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DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY
LONERE – RAIGAD – 402 103
Winter Semester Examination – December – 2018

Course: B.Pharm. **Semester: I**
Subject with Subject Code: (BP101T)
Date: 17/12/2018 **Marks: 75** **Duration: 3hrs**

Instructions: i) All questions are compulsory
ii) Figures to the right indicate full marks
iii) Draw the diagrams or flow charts wherever necessary.

Q.No.1 Attempt the following questions (All Questions Compulsory) **(20 Marks)**

1. The specific process by which red blood cells are formed is called.....
   (a) hemopoiesis (b) leucopoiesis (c) erythropoiesis (d) erythropoietin
2. Which blood cells transport oxygen and carbon dioxide?
   (a) WBC's (b) RBC's (c) platelets, (d) all of the above
3. The lymphatic system consist of following components **EXCEPT**.
   (a) liver (b) tonsils (c) thymus (d) spleen
4. In human peripheral nervous system, pairs of spinal nerves are.....
   (a) 30 pairs (b) 31 pairs (c) 12 pairs, (d) 15 pairs
5. The only vein in the body that transports oxygen-rich blood is.....
   (a) coronary vein (b) hepatic portal vein (c) pulmonary vein (d) aortic vein
6. Blood returning to the heart from the body organs enters the.....
   (a) left atrium through the aorta (b) right atrium through the vena cava
   (c) left ventricle by the pulmonary artery (d) right ventricle by the pulmonary vein
7. Intercalated discs are present in .....muscles.
   (a) smooth (b) skeletal (c) cardiac (d) all of the above
8. One of the following is NOT the basic type of tissue.
   (a) epithelial tissue (b) bone tissue (c) muscular tissue (d) nervous tissue
9. .....is the main site for protein synthesis in the cell.
   (a) lysosomes (b) mitochondria (c) ribosomes (d) nucleus
10. Which of the following skin strata (layer) found only in palms and soles?
    (a) stratum granulosum (b) stratum spinosum
    (c) stratum corneum (d) stratum lucidum
11. Which one of following bone belongs to different division of skeletal?
    (a) rib (b) vertebra (c) femur (d) sternum
12. The bones of the fingers are called.....
    (a) phalanges (b) carpals (c) tarsals (d) metacarpals
13. The only movable bone of skull is.....
    (a) maxilla (b) mandible (c) temporal bone (d) frontal bone

14. The ..... plane divides the body into right and left halves.
(a) transverse (b) sagittal (c) frontal (d) oblique

15. The initiation of the heart beat is the responsibility of the
(a) AV node (b) purkinje fibre (c) bundle of his (d) SA node.

16. Transmission of nerve impulses across a synaptic cleft is carried out by.....
(a) sodium ions
(b) potassium ions
(c) neurotransmitter
(d) All of the above

17. The somatic system contains nerves that control .....
(a) skeletal muscles
(b) skeletal muscles, skin and glands
(c) internal organs and glands
(d) smooth muscles, cardiac muscles and glands

18. The colour differentiation is done by
(a) rods (b) cones c) bipolar nerve cells (d) pigmented epithelium

19. Which part of internal ear receives sound waves in man
(a) cochlea (b) legena and utriculus (c) ampullae and utriculus (d) none of the above

20. Lacrimal glands are concerned with secretion of
(a) hormones (b) digestive juices (c) enzymes (d) tears

Q.No.2 Attempt any TWO questions of the following: (20 Marks)

a) Define and classify different types of tissue. Give location and function of different connective tissues

b) Give in detail composition and functions of blood. Add note on disorder of blood.

c) Draw a neat labeled diagram of internal structure of heart. Explain the conduction system of the heart.

Q.No.3 Attempt any SEVEN questions of the following: (35 Marks)

a) Draw a well labeled diagram of cell. Explain the functions of ribosome and mitochondria.

b) What is blood group? Discuss ABO and Rh system of blood group.

c) Compare the effects of the sympathetic and parasympathetic nervous system.

d) Draw well labeled diagram of section of lymph node and give its function.

e) Classify different types of bone with example. Discuss functions of skeletal system.

f) Explain the mechanism of blood coagulation.

g) Explain the location and functions of any five cranial nerves.

h) Draw a well labeled diagram of skin and explain its function.

i) Differentiate between arteries and veins.

----- END OF PAPER -----

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82

DR.BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY
LONERE-RAIGAD-422103
Winter Semester Examination-december-2018

Course: B.Pharm **Semester :I**
Subject with Subject Code: Communication skill (BP105T)
Date: 27/12/2018 **Marks: 35** **Duration:1.30hrs**

Instructions: *i) All questions are compulsory*
ii) figures to the right indicate full marks
iii) Draw the diagrams or flow charts wherever necessary

Q.No. 1 Attempt any one of the following **10 Marks**

a) Explain barriers to communication in detail.

b) Give interview skills in detail including steps before going to an interview and Do's and Don'ts for interview.

Q.No .2 Attempt any five of the following **25 Marks**

a) Explain components of communication in detail.

b) Give factors affecting for perspective.

c) Enlist types of communication and explain in brief.

d) Differentiate between direct and spirited communication.

e) Give criteria to become an active listener.

f) Explain sub skills of writing in detail.

h) Give different types of visual aids during effective presentation.

----END OF PAPER----

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83

DR.BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY
LONERE-RAIGAD-422103
Winter Semester Examination-december-2018

Course: B.Pharm **Semester :I**
Subject with Subject Code: Communication skill (BP105T)
Date: 27/12/2018 **Marks: 35** **Duration:1.30hrs**

Instructions: *i) All questions are compulsory*
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iii) Draw the diagrams or flow charts wherever necessary

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----END OF PAPER----

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84

DR.BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY
LONERE-RAIGAD-422103
Winter Semester Examination-december-2018

Course: B.Pharm **Semester: I**
Subject with Subject Code: Remedial Biology (BP106RBT)
Date: 28/12/2018 **Marks: 35** **Duration: 1.30hrs**

Instructions: *i) All questions are compulsory*
ii) figures to the right indicate full marks
iii) Draw the diagrams or flow charts wherever necessary

Q.No. 1 Attempt any one of the following **10 Marks**

a) Explain five kingdom system of life.

b) Explain in brief structure of heart and draw well labeled diagram of human heart.

Q.No .2 Attempt any five of the following **25 Marks**

a) Write in detail about pituitary gland and their secretion.

b) Draw the structure and function of kidney.

c) Define fruit and give the classification of fruits.

d) Explain in brief blood group.

e) Write a note on menstrual cycle.

f) What is action potential? Write its process.

h) Define root and explain its various parts also mention the function of root and stem

—END OF PAPER—

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DR.BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY
LONERE-RAIGAD-422103
Winter Semester Examination-december-2018

Course: B.Pharm **Semester: I**
Subject with Subject Code: Remedial Biology (BP106RBT)
Date: 28/12/2018 **Marks: 35** **Duration: 1.30hrs**

Instructions: *i) All questions are compulsory*
ii) figures to the right indicate full marks
iii) Draw the diagrams or flow charts wherever necessary

Q.No. 1 Attempt any one of the following **10 Marks**

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—END OF PAPER—

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86

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE
Winter Semester Examination – December 2018

Course: B. Pharmacy **Semester: I**
Subject with Subject Code: Pharmaceutical Inorganic Chemistry (BP104T)
Date: 24/12/2018 **Max Marks: 60** **Time: 3 Hrs.**

Instructions:

I. All questions are compulsory.
II. Candidates should begin the answer to each question on new page.
III. Illustrate your answers with neat sketches, diagram etc; whichever necessary.

Q. No. 1. Multiple Choice Questions: **(20)**

(Each of the following questions has four alternatives. Only one of them is correct. Choose the correct answer.)

1. A mixture of weak acid with their salt of strong base is called as ----------.
   a) Acidic buffer b) Basic buffer c) Buffer d) All of these
2. The shelf life of commercial buffers is ---------- years in unopened condition.
   a) 1 b) 2 c) 3 d) 0.5
3. A solution having osmotic pressure more than blood plasma is called as --------
   solution.
   a) Isotonic b) Hypotonic c) Hypertonic d) None of these
4. -------- is the most abundant extracellular cation.
   a) Potassium b) Calcium c) Sodium d) Magnesium
5. ---------- microorganisms responsible for Dental Caries.
   a) Streptococci b) Lactobacilli c) Both a & b d) None of these
6. ---------- is clay composed of ash made from volcanos.
   a) Kaolin b) Bentonite c) Gypsum d) Boric acid
7. The first edition of the Indian Pharmacopoeia was published in the year 1955 under the Chairmanship of ----------.
   a) Dr.R.N.Chopra b) Dr.B.N. Ghosh c) Dr.B.Mukherji d) Dr.Nityanand
8. Which method is used to purify the inorganic substances?
   a) Washing b) Drying c) Sublimation d) All of them
9. The limit test for iron is based on the formation of pale pink to deep reddish purple color by reaction of iron with ---------- acid.
   a) Thioglycolic acid b) Nitric acid c) Acetic acid d) Hydrochloric acid
10. A monograph is complete description of a specific pharmaceutical which includes --------.
    a) Chemical formula b) Molecular weight c) Solubility d) All of these
11. pH of the blood falls below 7.35 this condition is termed as ----------.
    a) Acidosis b) Alkalosis c) Achlorhydria d) Hyperchlorhydria
12. Unit of radioactivity is --------.
    a) Calorie b) Newton c) Curie d) Joules

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13. Synonym of aqueous iodine solution is ----------.
   a) Lugol's solution c) Strong iodine solution
   b) Tincture iodine d) None of these

14. ---------- is not a buffer system of our body.
   a) Borate buffer system c) Carbonic acid-bicarbonate system
   b) Phosphate buffer system d) Protein buffer system

15. Ammonium chloride is used as ----------.
   a) Expectorant b) Systemic acidifier c) Diuretic d) All of these

16. -------- is only water soluble compound used as effective antacid.
   a) Magnesium trisilicate c) Sodium bicarbonate
   b) Milk of magnesia d) Sodium hydroxide

17. Assay of chlorinated lime is done by ------- titration method.
   a) Acid-base b) Complexometry c) Iodometry d) None of these

18. Anti microbial action of anti bacterial agents is due to ----------.
   a) Protein precipitation b) Oxidation c) Halogenation d) All of these

19. Milk of magnesia I.P. is an aqueous suspension of hydrated --------.
   a) $MgSO_4$ b) $Mg(OH)_2$ c) $MgCO_3$ d) Mg - trisilicate

20. The substances like..... which emit radioactive radiations are called as radioactive substance
   a) Uranium b) Thorium c) Radium d) All of them

Q. No. 2. Attempt any TWO of the following: (20)

i) Define Radioactivity. Explain the properties of Alpha, Beta and Gama rays. Write short note on storage and handling of radioactive material.

ii) Write on – a) What are Astringents? Write the monograph of Zinc Sulphate.
   b) Oral Rehydration Salt (ORS).

iii) Define and classify Antacids with examples. Write the ideal properties of Antacids. Write the properties and uses of $NaHCO_3$.

Q. No. 3. Attempt any SEVEN of the following: (35)

a) What are Impurities? Explain different sources of impurities with examples.
b) Explain in detail the assay of Ammonium chloride.
c) Explain the role of fluoride in the treatment of Tooth Decay.
d) Write the principle and reaction involved in limit test for Arsenic.
e) Define buffer. Explain mechanism of buffer.
f) Write in short history of Indian Pharmacopoeia.
g) Define antimicrobial agents. Write the mechanism of actions of antimicrobials with examples.
h) Write short note on Haematinics.
i) Define and classify Antidotes with examples.

*** End ***

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88

BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY
LONERE – RAIGAD – 402 103
Winter Semester Examination – December – 2018

Course: B. Pharm **Semester: I**

Subject with Subject Code: (Pharmaceutics -I (BP103T)

Date: 21/12/2018 **Marks: 75** **Duration: 3 hrs**

Instructions: i) All questions are compulsory
ii) Figures to the right indicate full marks
iii) Draw the diagrams or flow charts wherever necessary.

Q.No.1 Multiple choice questions **(20X01=20) Marks**

1. The parts of prescription which contains name of the medicine, strength and quantity is called as
A. subscription B. Inscription C. superscription D. signature

2. If the usual adult dose of drug is 60 mg. What is the dose for a child of 6 yrs using young's formula.
A. 2 mg B. 10 mg C. 20 mg D. 1mg

3. 1 grain = ------ mg
A. 50 B. 60 C. 65 D. 75

4. --------- are sweet, flavored hydro-alcoholic preparations meant for oral administration.
A. Elixirs B. Mouthwash C. Syrups D. Gargles

5. Jellis can be classified as
A. Lubricated B. Medicated C. Both D. None of these

6. Semi-solid dosage forms are absorbed through skin by
A. Passive diffusion B. Active absorption C. Osmosis D. Reverse osmosis

7. Physical factors affecting incompatibility includes
A. Insolubility B. Liquefaction C. Precipitation D. All of above

8. Dusting powder is intended for
A. Internal use B. External use C. Both a and b D. None of above

9. $Child\ Dose = \frac{Age\ in\ month}{150} \times Adult\ Dose$
A. Clarks rule B. Young's rule C. Fried rule D. Cowlings rule

10 ------- are not to be applied on broken skin.
A. Liniment B. Creams C. Lotion D. Jellies

11. Tetracycline taken with milk, is a type of ---------
A. Therapeutic incompatibility B. Adjusted incompatibility C. Physical incompatibil
D. Tolerated incompatibility

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12. 1 drop is

A.0.05 ml B.0.08 ml C.0.06 ml D. 0.01 ml

13. Which was the first official pharmacopoeia of India?

A. 1945 B. 1955 C. 1948 D. 1966

14. ---------- is a biphasic dosage form

A. Douches B. Emulsion C. Glycerites D. Collodions

15. Symbol Rx refers to

A. Prescription B. Recipe C. Trademark D. Copyright

16. Simple syrup I.P. contain about ------% w/w of sucrose in water.

A. 66.7% B. 60 % C. 64.74 % D. 70%

17. ---------- are liquid dosage forms and externally inserted into body Cavity to promote defecation

A. Enema B. Suppositories C. Pessaries D. Bougies

18. ---------- Bases are commonly used in vaginal suppositories

A. Cocoa butter B. Glycerinated gelatin C.Macrogol D. None of these

19. Camphor & menthol when triturated together undergo liquefaction this is a type of ------ incompatibility

A. Physical B. Chemical C. Both D. None the above

20. ------- is shown by cocoa butter on excessive heating

A. Rancidity B. Precipitation C. Instability D. Polymorphism

Q. No. 2 Attempt any two of the following: (10X2=20) Marks

a) Give the test for identification of type of emulsion. Discuss the stability issues with emulsion and give the methods to overcome.

b) What is Posology? Explain in detail various factors affecting dose of drug.

c) Give advantages and disadvantages of suppositories. Write a brief note on displacement value.

Q. No .3 Attempt any five of the following (07X05=35) Marks

a.) Write a note on error in prescription & handling of prescription

b.) Describe in detail excipient used in formulation of liquid dosage form with example.

c.) Write a note on therapeutics incompatibity.

d) Differentiate between flocculated and deflocculated suspension

e.) Define and classify ointment bases with example.

f.) Comment on pharmacy education in India and scope of pharmacy.

g) Give the evaluation for semisolid dosage forms.

End

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DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY

LONERE - RAIGAD - 402 103

Winter Semester Examination - December - 2018

Branch: B. Pharmacy **Semester: I**

Subject / code: Pharmaceutical Analysis -I (BP 102T) **Marks: 75**

Date: 19/12/2018 **Time: 3 Hours**

Instructions: i) All questions are compulsory

ii) Figures to the right indicate full marks

iii) Draw the diagrams or flow charts wherever necessary.

Q. No. 1 Attempt the following multiple choice questions. **(1 X 20=20)**

1. Which one the following compound is assayed by gravimetric analysis

   A) cerric sulphate B) barium sulphate

   C) calcium gluconate D) Benzoic acid

2. Reduction is ----------of electrons.

   A) loss B) gain

   C) removal D) none of these

3. Gram----------of solute dissolved in 1 liter of solvent gives 1 Normal solution

   A) equivalent Weight B) molecular Weight

   C) Mole D) none of this

4. From the following ---------is not a self indicator?

   A) ferroin B) iodine

   C) potassium permangnate D) cerric sulphate

5. Colour of phenolphthalein in alkaline pH is ----------

   A) yellow B) brown

   C) pink D) red

6. PH is given as----------

   A) $pH=Log\ [H^+]$ B) $pH=-Log_{10}\ [H^+]$

   C) $pH=1/[H^+]$ D) $pH=-Log_{10}\ [OH^-]$

7. Drop of mercury in DME acts as----------electrode.

   A) reference B) indicator

   C) hydrogen D) calomel

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8. ---------ml of hydrochloric acid is diluted with1 liter of water to make 1M solution.

A) 36.5 B) 85

C) 8.5 D) 3.65

9. ---------- of the following is hexadentate legand.

A) glycine B) ethylene diamine

C) ammonia D) EDTA

10. Solubility of precipitate is----------on addition of common ions.

A) increased B) decreased

C) remains constant D) none of these

11. In volhard's method ----------is used as titrant.

A) potassium chromate B) ferric ammonium sulphate

C) ammonium thiocyanate D) silver nitrare

12. According to Lewis acid is a substance which----------.

A) accept proton B) accept electron pair

C) donate proton D) donate electron pair

13. Benzene is ---------

A) protophilic solvent B) protogenic solvent

C) aprotic solvent D) amphiprotic solvent

14. Potential of standard hydrogen electrode is---------Volt.

A) 0.245 B) 0.385

C) 0.199 D) 0.0

15. ---------- is the requirement of primary standard substances.

A) purity B) stability

C) no water of hydration D) all of these

16. The ---------states that "The rate of chemical reaction is proportional to the active masses of reacting substances".

A) law of mass action B) first law of thermodynamics

C) second law of thermodynamics D) universal law

17. Iodometry deals with titration of ----------in chemical reation.

A) iodine liberated B) standard solution of iodine

C) both A and B D) none of these

18. In Potentiometry, electrode who potential is remains constant is called as ----------.

A) anode B) indicator electrode

C) reference electrode D) inert electrode

92

DR.BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY
LONERE-RAIGAD-422103
Winter Semester Examination-december-2018

Course: B.Pharm **Semester: I**

Subject with Subject Code: Remedial Mathematics (BP106RMT)

Date: 28/12/2018 **Marks: 35** **Duration: 1.30hrs**

Instructions: *i) All questions are compulsory*
ii) figures to the right indicate full marks
iii) Draw the diagrams or flow charts wherever necessary

Q.No. 1 Attempt any one of the following **10 Marks**

a) Evaluate i) $\lim_{X \to 1} X^2-1/X^2-3X+2$

. ii) $\lim_{X \to 2} X^2-4/X^2-2$

b) Resolve i) $2X+3/X^2-2X+3$ into partial fractions.

ii) Find partial fractions of $X/(X+1)(X-1)$.

Q.No .2 Attempt any five of the following **25 Marks**

a) Define following term

i) Proper Fraction ii) Square Matrix

iii) Straight Line iv)Integration v) Derivative.

b) Evaluate the following integral

i) $\int X^3 dx$ ii) $\int \text{Sin } X+X^2 dx$

c) Find the derivative of following function

i) $e^x \log X$ ii) $3X+\text{Sin}X-\text{Cos}X$

d) Define function and write down the classification of real value function.

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e) Find the inverse of matrix by using adjoins method.

$$A = \begin{vmatrix} 1 & 3 & 3 \\ 1 & 4 & 3 \\ 1 & 3 & 4 \end{vmatrix}$$

f) Find the value of

$$\Delta = \begin{vmatrix} 1 & 0 & 0 \\ 2 & 3 & 4 \\ 5 & -6 & 7 \end{vmatrix}$$

and also write down any two properties of determinant.

—END OF PAPER-

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कपिला - 001

Seat Number

* 1 9 7 7 *

94

BP 101 T
Human Anatomy and Physiology - I
(711101)

P. Pages : 2

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

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Instructions to Candidates :

1. Do not write anything on question paper except Seat No.
2. Graph or diagram should be drawn with the black ink pen being used for writing paper or black HB pencil.
3. Students should note, no supplement will be provided.
4. All questions are compulsory.
5. Draw well labelled diagram wherever necessary.

1. Answer all the questions. **20**

a) Anatomy and physiology provides the information about different --------- .

b) Normal range of haemoglobin in male individual is ---------.

c) Fluid present within cells is called as ---------.

d) --------- is called as powerhouse of cell.

e) The largest collection of lymphatic tissue in adult body is located in the ---------

f) --------- is located in the right atrium and acts as a "Pacemaker".

g) --------- glands secrete an oily and waxy matter called as sebum.

h) The only blood vessels whose wall permit exchange between the blood and the surrounding interstitial fluid are the ---------

i) --------- valves prevents backflow of blood into atria during ventricular contraction.

j) The --------- suture joins the parietal bone to the occipital bone.

2. Solve **any two.** **20**

a) Describe anatomy and physiology of eye in detail.

b) What is cardiac output? Explain cardiac cycle in detail.

c) Describe anatomy and physiology of skeletal system.

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35

3. Write short note on **any seven.**

a) Pectoral girdle.

b) Lymph Node.

c) Physiology of Hearing.

d) Regulation of blood pressure.

e) Structure and function of cell.

f) Anatomy and physiology of tongue.

g) Electrocardiogram.

h) Hemostasis.

i) White blood cells.

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कपिला - 002

Seat Number

* 1 9 7 8 *

96

BP 102 T Pharmaceutical Analysis - I
(711102)

P. Pages : 3

Time : Three Hours

Max. Marks : 75

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Instructions to Candidates :

1. Do not write anything on question paper except Seat No.
2. Graph or diagram should be drawn with the black ink pen being used for writing paper or black HB pencil.
3. Students should note, no supplement will be provided.
4. Figure to the right indicate full marks.

1. Multiple choice questions (MCQs). **20x1 =20**

1) Following are the secondary standard except.
   a) Na_2CO_3 b) HCl
   c) H_2SO_4 d) NaOH

2) which of the following is protophilic solvent.
   a) Acetic acid b) Pyridine
   c) Water d) Carbon tetrachloride

3) Which of the following is weak acid indicator.
   a) Methyl orange b) Methyl red
   c) Phenolphthalein d) None of the above

4) Which method proposed the end point detection by nature of adsorption on surface of precipitate.
   a) Volhard method b) Mohr's method
   c) Gay Lussac's method d) Fajan's method

5) Following is the type of systematic error except.
   a) Instrumental Error b) Method error
   c) Personal Error d) Random error

6) The unit of specific conductance is ----------.
   a) Ohm cm^{-1} b) Ohm^{-1}
   c) All the above d) None of the above

7) ---------- is an example of reference electrode.
   a) Standard Hydrogen Electrode
   b) Standard calomel Electrode
   c) Ag–AgCl electrode
   d) All the above

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8) In polarography ---------- is recorded.
   a) Current Vs potential b) Vol of titrant recorded
   c) Conductance d) None of the above

9) Which indicator is used for the titration of weak acid & weak base.
   a) Methyl orange indicator b) Mixed Indicator
   c) Phenolphthalein indicator d) Thymol Blue Indicator

10) Dioxane is a solvent used in ----------.
   a) Acid base titration b) Non-aqueous Titration
   c) Precipitation Titration d) Gravimetric analysis

11) $AgNO_3$ used as precipitating agent in Mohr's method against ----------.
   a) NaCl b) $kMnO_4$
   c) NaOH d) HCl

12) Acidic or Basic dyes used in a ---------- method.
   a) Volhard's method b) Gravimetric method
   c) Mohr's method d) Fajan's method

13) In complexometric titration chloral hydrate used as ----------.
   a) Demasking agent b) Precipitating agent
   c) Masking agent d) Chelating agent

14) Oxidation is ----------.
   a) Gain of electron b) Loss of electron
   c) Loss of oxygen d) None of the above

15) ---------- is defined as degree of agreement between measured value & tree value.
   a) Accuracy b) Precision
   c) Error d) Random error

16) Indicator theory described by ----------.
   a) Ostwald's theory b) Quinonoid theory
   c) All the above d) None of the above

17) Which of the following is an example of aprotic solvent.
   a) Benzene b) Pyridine
   c) Ethanol d) Glacial acetic acid

18) EDTA is ---------- ligand.
   a) Unidentate b) Bidentate
   c) Tridentate d) Multidentate

19) Co-precipitation is a problem arises during ----------.
   a) Conductometric titration b) Potentiometric titration
   c) Gravimetric Analysis d) Complexometric Titration

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20) Which of the following used as a self indicator.

a) $KMnO_4$ b) Methyl Red

c) HCl d) $AgNO_3$

2. Solve **any two.** **2x10 =20**

a) What is gravimetric analysis. Write the steps involved in gravimetric analysis.

b) Explain the methods used for detection of end point in redox Titration. Explain in brief types of redox titration.

c) Write in detail Volhard method. Explain in brief estimation of sodium chloride.

3. Solve **any seven.** **7x5 =35**

a) Write a short note on metal ion indicator.

b) Write the principle, method & application of diazotization analysis.

c) Write the types of solvent used in Non-aqueous titration.

d) Explain in brief masking & demasking agent.

e) What is error. Explain in detail types of error.

f) Write the assay of sodium benzoate in Non-aqueous Titration.

g) Write the short note on Acid-base indicator.

h) Write short note on dropping mercury electrode.

i) Write the theory of redox titration.

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Seat Number

कपिला - 003

* 1 9 7 9 *

९१

BP 103
T Pharmaceutics - I
(711103)

P. Pages : 3

Time : Three Hours

Max. Marks : 75

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Instructions to Candidates :

1. Do not write anything on question paper except Seat No.
2. Graph or diagram should be drawn with the black ink pen being used for writing paper or black HB pencil.
3. Students should note, no supplement will be provided.
4. All questions are compulsory.
5. Draw neat and well labelled diagram wherever necessary.
6. Figures to the right indicates full marks.

1. Multiple choice questions. **20**

1) Who is the father of medicine ---------
   a) tbers b) Hippocrates
   c) Galen d) Dioscorides

2) The first edition of I.P. was published in ---------
   a) 1965 b) 1996
   c) 1955 d) 1855

3) Powders used externally are also known as ---------
   a) Dusting powder b) Bulk powder
   c) Divided powder d) Effervescent powder

4) Enemas are administered ---------
   a) Orally b) Parenterally
   c) Topically d) Rectally

5) Which of the following enzyme is present in acacia
   a) Ligase b) Peroxidase
   c) Amylase d) Glutamase

6) A drug is an agent intended for use in ---------
   a) Diagnosis b) Treatment
   c) Prevention d) All of these

7) Young's formula for calculation of dose is ---------
   a) Child dose = $\frac{\text{Age (years)}}{\text{Age} + 12}$ x Adult dose
   b) Child dose = $\frac{\text{Age (years)}}{24}$ x Adult dose

c) Child dose = $\frac{\text{Age (Months)}}{150}$ x Adult dose

d) Child dose = $\frac{\text{weight (pounds)}}{150}$ x Adult dose

8) Swelling or bursting of cell reading to hemolysis is caused by -------- solution.
   a) Hypertonic b) Isotonic
   c) Hypotonic d) Non-tonic

9) Which of the following function is performed by excipient in liquid dosage form
   a) Improve patients acceptance
   b) Protection
   c) Stability
   d) All of these

10) Suspending agents are also known as --------
   a) Humectants b) Thickening agent
   c) Osmotic agents d) Preservatives.

11) cracking is --------
   a) Separation of phases as distinct layer
   b) Separation of globules of top of emulsion
   c) Change in type of emulsion.
   d) None of these

12) Cocoa butter is a -------- type of base.
   a) Hydrophilic base b) Oleaginous base
   c) Water dispersible base d) Emulsifying base

13) Which of the following method is used for preparation of suppository.
   a) Hand Rolling b) Compression molding
   c) Fusion / pour method d) All of these

14) Incompatibility is of -------- types.
   a) One b) Two
   c) Three d) Four

15) Creams are semisolid --------
   a) Emulsion b) Suspension
   c) Suppositories d) Solution

16) Which of the following is not route of administration.
   a) Intravenous b) Intramuscular
   c) Topical d) Dissolution

17) Elixirs are -------- type of liquids.
   a) Hydro-glycerin b) Hydro-Ethylene
   c) Hydro-Alcohol d) None of these

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18) Buffering agent is also called as --------
a) Sweetning agent b) pH modifiers
c) Preservatives d) Wetting agent

19) Suspensions are prepared by --------
a) Doy gum method b) Wet gum method
c) Bottle method d) None of these

20) Subscription contains the --------
a) Direction to patient b) Direction to pharmacist
c) Direction to doctor d) None of these

2. Long Answer Question Attempt **any two.** **20**

1) Define prescription. Explain in detail parts of prescription. Add a note on prescription handling.

2) Define Emulsion. Explain in detail methods of preparation of emulsion. Add a note on tests for determining type of emulsion.

3) Define ointment. Explain in detail methods of preparing ointment. Add a note on ointment bases.

3. Short answer questions Attempt **any seven.** **35**

1) Discuss career opportunies in pharmacy.

2) Define dosage form. Give a detailed classification of dosage form.

3) Define posology. Explain the factors affecting posology.

4) Define syrup. Explain in detail method of preparation of syrup.

5) Write a note on physical incompatibility.

6) Write a note on factors affecting dermal penetration of drugs.

7) Write a note on evaluation parameters of suppositories.

8) Write a note on excipients used in formulation of liquid dosage forms.

9) Define and classify suspension. Differentiate between flocculated and deflocculated suspension.

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Seat Number

1980

102

BP 104 T
Pharmaceutical Inorganic Chemistry
(711104)

P. Pages : 3

Time : Three Hours

Max. Marks : 75

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Instructions to Candidates :

1. Do not write anything on question paper except Seat No.
2. Graph or diagram should be drawn with the black ink pen being used for writing paper or black HB pencil.
3. Students should note, no supplement will be provided.
4. Figures to the right indicate full marks.

1. Choose the correct alternative and rewrite the sentence. **20**

a) Citric acid is added in limit test of iron to -------
   i) Produce pink colour
   ii) Avoid interference of other metals
   iii) React with iron
   iv) Produce acidity

b) The stain produced in the limit test of arsenic is -------
   i) Violet
   ii) Yellow
   iii) Black
   iv) None of the above

c) The mechanism of action of buffer is based on -------
   i) Henderson Hassel Balch equation
   ii) Compton's equation
   iii) Sorenson's equation
   iv) Ilkovic equation.

d) Dental cement consists of -------
   i) Zn + Eugenol
   ii) Na + Mannitol
   iii) Al + Cresol
   iv) None of above

e) Al & Mg containing antacoids cause -----
   i) Ulcers & diarrhoea
   ii) Constipation & Laxation
   iii) Both i & ii
   iv) None of above

f) Which of the following is bacteriostatic.
   i) H_3BO_3
   ii) H_2O_2
   iii) Both i & ii
   iv) None of above

g) Non - systemic antacid which produces systemic effect upon reaction with gastric HCl is ------
   i) $Al(OH)_3$
   ii) $CaCO_3$
   iii) $Mg(OH)_2$
   iv) $NaHCO_3$

h) Povidone iodine is better than tincture iodine because ------
   i) it cause no irritation
   ii) Semisolid
   iii) Nonvolatile
   iv) None of above

i) BAL is used to treat ------- poisoning.
   i) Lewisite
   ii) Cu
   iii) Pb
   iv) CN

j) ---------- is major extracellular electrolyte is body.
   i) Magnesium
   ii) Calcium
   iii) Potassium
   iv) Sodium

k) Antacid are used in combination with -------
   i) Alginic acid
   ii) Mg silicate
   iii) Simethicone
   iv) All of above

l) Ammonium chloride is used as ------
   i) Emetic
   ii) Expectorant
   iii) Haematinic
   iv) Antidote

m) Alcohol is used in barium sulphate reagent to prevent ----
   i) Saturation
   ii) Super Saturation
   iii) Turbidity
   iv) Opalescence

n) Which of the following is important buffer pair in human body?
   i) H_2CO_3/HCO_3^-
   ii) H_3PO_4/HCO_3^-
   iii) HPO_4^{-2}/H_2CO_3
   iv) $H_2PO_4^-/HCO_3^-$

o) Anemic is general term for a condition in which -------- are defficient is number.
   i) WBC
   ii) RBC
   iii) Platelets
   iv) All above

p) ---------- is known as Muriate of Potash.
   i) KCl
   ii) $FeSO_4$
   iii) KOH
   iv) All above

q) Impurities in pharmaceutical preparation may be due to following -------
   i) Raw material
   ii) Manufacturing process
   iii) Chemical instability
   iv) All of the above

r) What should be ideal property for an antacid preparation.
   i) It should be non - absorbable.
   ii) should not cause systemic alkalosis
   iii) buffer in the range pH 4 - 6.
   iv) all of above.

Laxative are mild -------
   i) Cathartic
   ii) Expectorant
   iii) Protective
   iv) All above

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t) Hypochloremia can be caused by ------
   i) Salt loosing nephritis ii) Metabolic acidosis
   iii) Metabolic alkalosis iv) both i & ii

2. Attempt **any two** of the followings. 20

a) Define purity, impurities. Explain the sources of impurities in pharmaceutical substance.

b) Write in detail about major intracellular and extra cellular electrolytes.

c) Explain the limit test for Arsenic in detail.

3. Attempt **any seven** of followings. 35

a) Explain the respiratory stimulants with suitable examples.

b) Explain the acidifiers in detail.

c) Define and explain dentifrices.

d) Define isotonic solutions, and explain the methods for adjustment of isotonicity.

e) Explain the principle involved in limit test for Iron.

f) What are the effects of impurities in pharmaceutical substances.

g) Define acids and bases according to different theories.

h) What are radio pharmaceuticals? Explain storage conditions.

i) What are Poisons. Explain the role of antidotes.

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Seat Number

1981

105

BP 105 T
Communication Skills
(711105)

P. Pages : 1

Time : One & Half Hours

Max. Marks : 35

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Instructions to Candidates :

1. Do not write anything on question paper except Seat No.
2. Graph or diagram should be drawn with the black ink pen being used for writing paper or black HB pencil.
3. Students should note, no supplement will be provided.
4. All questions are compulsory.
5. Draw neat and well labeled diagram wherever necessary.
6. Figures to the right indicates full marks.

1. Long Answer Questions Attempt **any one.** **10**

a) Explain in detail barriers to communication.

b) Write in detail about communication styles with eg.

2. Short Answer Questions Attempt **any five.** **25**

a) Explain the skills assessed in group discussion.

b) Define interview. Explain various types of interview.

c) Explain in detail process of communication.

d) Discuss in detail about effective writing.

e) Define listening. Explain types of listening.

f) Write a note on body language.

g) Explain in detail DO's and Dont's during group discussion.

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कपिला - 007

Seat Number

1983

106

BP 106
RMT Remedial Mathematics
(711162)

P. Pages : 2

Time : One and Half Hour

Max. Marks : 35

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Instructions to Candidates :

1. Do not write anything on question paper except Seat No.
2. Graph or diagram should be drawn with the black ink pen being used for writing paper or black HB pencil.
3. Students should note, no supplement will be provided.
4. Simple non programmable calculator is allowed.
5. Log table is allowed.

1. Attempt **any one** of the following. **10**

a) Verify Cayley Hamilton theorem for the following matrix.

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

b) i) If $f(x)=x^2+5x+6$ find $f(0)\cdot f(1)$.

ii) Find $\frac{dy}{dx}$ if $y=e^{2x}+x^n+5\log\sin x$

iii) $\int x e^x dx$

iv) If the lines $2x+3y+5=0$ & $kx+6y+7=0$ are parallel to each other find the value of K.

v) $\lim_{x\to 0}\frac{3\sin x+4x}{7x-2\tan x}$.

2. Attempt **any five** out of seven. **25**

a) Resolve the partial fraction $\frac{1}{x^3-1}$

b) Prove that $7\log\left(\frac{16}{15}\right)+5\log\left(\frac{25}{24}\right)+3\log\left(\frac{81}{80}\right)=\log 2$

c) Find the inverse of matrix

$$A=\begin{bmatrix}1 & 2 & 3\\ 3 & 4 & 5\\ 2 & 7 & 11\end{bmatrix}$$

d) Evaluate $\int\frac{x^2}{(x+1)(x+2)(x+3)}\,dx$

e) Solve D. E. $\frac{dy}{dx}=\frac{y+x}{x}$

f) Find the value of X if

$$\begin{vmatrix}1 & x & x^2\\ 1 & 2 & 4\\ 1 & 3 & 9\end{vmatrix}=\begin{vmatrix}1 & 1\\ 2 & 2\end{vmatrix}$$

g) Find the Laplace transformation of
$e^{-3t}(2\cos 5t-3\sin 5t)$

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Seat Number

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1/8

BP 106 RBT Remedial Biology
(711161)

P. Pages : 1

Time : One & Half Hours **Max. Marks : 35**

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Instructions to Candidates :

1. Do not write anything on question paper except Seat No.
2. Graph or diagram should be drawn with the black ink pen being used for writing paper or black HB pencil.
3. Students should note, no supplement will be provided.
4. All the questions are compulsory.
5. Draw at labelled diagram in Ans where necessary.

1. Attempt **any one.** **10**

a) Describe the Internal structure of Heart along with labelled diagram. Add a note on cardiac cycle.

b) Explain in detail physiology of Urine formation.

2. Attempt **any five.** **25**

a) Give the composition and function of Blood.

b) Describe the Anatomy of Nephron.

c) Explain the various phases of menstrual cycle.

d) Write a note on Epithelial tissue.

e) Explain the significance of Nitrogen in plants.

f) Explain in brief mechanism of respiration.

g) Discuss the various stages of mitosis.

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DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVESITY LONERE-RAIGAD-402103

End Semester Examination – Winter 2024

Course :Bachelor of Pharmacy Branch : Pharmacy

Semester : SEMESTER - 1

Subject Code & Name: BP101T-HUMAN ANATOMY AND PHYSIOLOGY I

Date:

Time : 3 Hours] **[Total Marks : 75**

Instructions to the Students:

1.All questions are compulsory.

2.Draw diagrams / figures wherever necessary

3.Figures to right indicate full marks

Q.1 Objective Type Questions (Answer all the questions) (10 x 2) = 20

A)	Describe the structure of Artery.	2
B)	Define the terms- cardiac output, blood pressure, stoke volume and hemopoeisis.	2
C)	Discuss the passive diffusion	2
D)	Explain the Composition of Blood.	2
E)	Explain in brief Cell junctions.	2
F)	Enlist the bones of axial skeleton.	2
G)	Differentiation between sympathetic and parasympathetic nervous system	2
H)	Draw neat labeled diagram of internal structure of Ear	2
I)	Discuss the waves of ECG	2
J)	Discuss anatomy of Smooth muscle	2

Q.2 Long Answers (Answer 2 out of 3) (2 x 10) = 20

A)	Draw a neat and well-labeled diagram of a cell and discuss in detail protein synthesis in the cell.	10
B)	Discuss in detail the structural features and functions of skin.	10
C)	Draw a neat and labeled diagram showing the conducting element of the heart, providing details of the conducting system of the heart and the cardiac cycle.	10

Q.3 Short Answers (Answer 7 out of 9) (7 x 5) = 35

A)	Write a note on epithelial tissue.	5
B)	Explain the physiology of skeletal muscle contraction.	5
C)	Write a note on cell signaling.	5
D)	Summarize in short the renin-angiotensin-aldosterone system.	5
E)	Describe the ABO and Rh systems of blood groups.	5
F)	Draw a neat labeled diagram of a lymph node and discuss its structure and function.	5
G)	Explain the physiology of smell.	5
H)	Define and classify joints. Write a note on synovial joints with its labelled diagram.	5
I)	Explain in detail the mechanism of blood coagulation	5

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVESITY LONERE-RAIGAD-402103

End Semester Examination – Winter 2024

Course :Bachelor of Pharmacy Branch : Pharmacy

Semester : SEMESTER - 1

Subject Code & Name: BP102T-PHARMACEUTICAL ANALYSIS I

Date:

Time : 3 Hours] **[Total Marks : 75**

Instructions to the Students:

1.All questions are compulsory.

2.Draw diagrams / figures wherever necessary

3.Figures to right indicate full marks

Q.1 Objective Type Questions (Answer all the questions) (10 x 2) = 20

A)	Define polarography and write the Ilkovic equation.	2
B)	List any four solvents used in non-aqueous titrations.	2
C)	What is iodometry? State its principle.	2
D)	Explain in short metal ion indicator.	2
E)	Define molarity and explain how you would prepare 0.01 M NaOH solution.	2
F)	Draw a neat, labeled diagram for the Gutzeit apparatus used in the arsenic limit test.	2
G)	Define acid and base as per the Bronsted-Lowry theory.	2
H)	State the principle of Mohr's method and its application.	2
I)	What are potentiometric titrations? Give any two applications.	2
J)	What is dichrometry? Mention one example of its use in redox titrations.	2

Q.2 Long Answers (Answer 2 out of 3) (2 x 10) = 20

A)	Define Oxidation and reduction. Describe in detail the principle of redox titrations, and explain redox titration curves with diagrams.	10
B)	Explain the principle, procedure, and steps involved in gravimetric analysis with an appropriate example.	10
C)	Define an electrochemical cell. Describe the construction and working of the Standard Hydrogen Electrode and the Calomel Electrode.	10

Q.3 Short Answers (Answer 7 out of 9) (7 x 5) = 35

A)	Discuss various neutralization curves of the acid base titrations.	5
B)	Define conductometry, give the principle and applications of conductometry.	5
C)	Give the principle and applications of cerimetry.	5
D)	Define impurity and give a detailed account of the limit test for chlorides.	5
E)	Explain co-precipitation along with its mechanism and post-precipitation with a suitable example.	5
F)	Define and classify errors in analytical chemistry and suggest ways of minimizing errors.	5
G)	Explain Volhard's method of titration, along with the reaction involved.	5
H)	What is non-aqueous titration? Discuss the advantages and disadvantages of non-aqueous titration.	5

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVESITY LONERE-RAIGAD-402103

End Semester Examination – Winter 2024

Course :Bachelor of Pharmacy Branch : Pharmacy

Semester : SEMESTER - 1

Subject Code & Name: BP103T-PHARMACEUTICS I

Date:

Time : 3 Hours] **[Total Marks : 75**

Instructions to the Students:

1.All questions are compulsory.

2.Draw diagrams / figures wherever necessary

3.Figures to right indicate full marks

Q.1 Objective Type Questions (Answer all the questions) (10 x 2) = 20

A)	Define pharmacy and its scope.	2
B)	What is eutectic mixture and give an example of it?	2
C)	Differentiate between flocculated and deflocculated suspensions.	2
D)	What is a prescription? Mention any two errors that can occur in prescriptions.	2
E)	Define and Classify Powders.	2
F)	Enlist the ideal characteristics of ointment base.	2
G)	What are semisolid dosage forms? Give two examples.	2
H)	Write the difference between Liniments and Lotion.	2
I)	How much 95% alcohol and how much 50% alcohol will be needed to attain 450 ml of 70% alcohol.	2
J)	Write advantages & disadvantages of suppositories.	2

Q.2 Long Answers (Answer 2 out of 3) (2 x 10) = 20

A)	Define Posology. Enlist and explain factors affecting dose.	10
B)	Define emulsion. Discuss identification test for emulsion along with its stability problems.	10
C)	Define Incompatibility. Classify it.Explain Physical,Chemical,Therapeutic incompatibility with examples	10

Q.3 Short Answers (Answer 7 out of 9) (7 x 5) = 35

A)	Describe methods of preparation of Suppositories.	5
B)	Write a note on Indian & US Pharmacopoeias	5
C)	Explain methods of preparation and stability of suspension.	5
D)	Discuss the history and development of pharmacy as a profession in India.	5
E)	Explain the classification of different dosage forms with examples.	5
F)	Explain various solubility enhancement techniques.	5
G)	What are the different types of liquid dosage forms? Explain their advantages and disadvantages.	5
H)	Explain different methods for mixing of powders	5
I)	What are isotonic solutions? What are the methods of calculating isotonicity.	5

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVESITY LONERE-RAIGAD-402103

End Semester Examination – Winter 2024

Course :Bachelor of Pharmacy Branch : Pharmacy

Semester : SEMESTER - 1

Subject Code & Name: BP104T-PHARMACEUTICAL INORGANIC CHEMISTRY

Date:

Time : 3 Hours] **[Total Marks : 75**

Instructions to the Students:

1.All questions are compulsory.

2.Draw diagrams / figures wherever necessary

3.Figures to right indicate full marks

Q.1 Objective Type Questions (Answer all the questions) (10 x 2) = 20

A)	Differentiate between absorbable and non-absorbable antacids.	2
B)	Define and classify Buffers. Give examples of pharmaceutical buffers	2
C)	What are dental products. Explain the desensitizing agents with example.	2
D)	Give the importance of antacid combinations. Give properties and preparation of Aluminum hydroxide gel.	2
E)	Explain the properties and uses of Boric acid.	2
F)	What are emetics & classify them suitable example?	2
G)	Write principle and procedure involved in limit test for Chloride.	2
H)	What are the Ideal properties of Antacids.	2
I)	Explain in short different sources of impurities	2
J)	Classify Expectorants with suitable example	2

Q.2 Long Answers (Answer 2 out of 3) (2 x 10) = 20

A)	Give a brief account of the limit test of Arsenic with principle, apparatus and procedure.	10
B)	What is radioactivity?Explain the methods for the measurement of radioactivity. Give storage conditions and applications of pharmaceutical radioactive substances.	10
C)	Define antimicrobial agents .Give their classification and mechanism with example. Add a note on Hydrogen Peroxide.	10

Q.3 Short Answers (Answer 7 out of 9) (7 x 5) = 35

A)	Discuss in detail limit test for iron.	5
B)	Write a short note on Sodium nitrite as antidote in cyanide poisoning.	5
C)	Explain in detail Copper sulphate as an emetic.	5
D)	Elaborate the Properties of α, β, γ radiations.	5
E)	Give a brief explanation of preparations, properties and uses of Sodium Chloride as a electrolyte therapy.	5
F)	Give functions of calcium and causes of Hypocalcemia	5
G)	Give functions of major extracellular cations and anions	5
H)	Describe Laxatives ,Purgatives and Catharitics with suitable example.	5

DR.BABASAHEB AMBEDKAR TECHNOLOGYCAL UNIVERSITY, LONERE, RAIGAD

END SEMISTER THEORY EXAM – WINTER 2025

Course – B. Pharmacy | Sem – I
Subject Name – Communication Skill | Subject Code-BP105T
Max Mark – 35 | Date – 13/05/2025 | Duration – 1.5Hrs

Instructions:

- All questions are compulsory
- Draw diagrams/figures whenever necessary
- Figures to right indicate full marks

Q.1.Long Answers (Answer 1 out of 2) **(1x10) =10**

1) Write the short note on following organizational barrier, semantic barrier, personal barrier, psychological barrier.
2) Explain the Purpose of an interview, Do's and Dont's of an interview.

Q.2.Short Answers (Answer 5 out of 7) **(1x10) =10**

1) Write the the importance of communication.
2) Explain the factors affecting our perspective.
3) Enlist the Do's and Dont's of group discussion.
4) Write a short note on structuring your presentation.
5) Give the short introduction on effectively writing.
6) Give the short explanation on basic listening skill.
7) Write a short note on elements of communication.

----------END OF PAPER----------