

B.SC. IN MEDICAL LABORATORY TECHNOLOGY

III SEMESTER – FEBRUARY 2023

Time: 3 Hours

Max. Marks: 60

BIOCHEMISTRY-III

Q.P. Code:1911

Answers should be specific to the Questions asked.

Draw neat, labeled diagrams wherever necessary.

Question Number	Marks
LONG ESSAY QUESTIONS (Answer any TWO):	2 X 10 = 20
1. Describe the reactions of beta-oxidation. Add a note on ATP yield from palmitate.	(6+4)
2. Explain the dynamics of blood glucose homeostasis. Explain the role of hormones in achieving this.	(5+5)
3. Define chromatography. Write its principle, types and applications.	(1+2+3+4)
SHORT ESSAY QUESTIONS (Answer any FIVE):	5 X 5 = 25
4. Describe the factors affecting enzyme activity with the help of graphical representation.	
5. What are lipoproteins? Classify them and explain their functions.	(1+2+2)
6. Name the ketone bodies. How are they formed in the body?	(2+3)
7. What are the indications for OGTT (Oral Glucose Tolerance Test). Explain the procedure.	(2+3)
8. Discuss molecular defects and biochemical changes in sickle cell anemia.	
9. Explain the normal and abnormal patterns of plasma protein electrophoresis.	
SHORT ANSWER QUESTIONS (All are compulsory):	5 X 3 = 15
10. List 3 therapeutic uses of enzymes.	
11. List the functions of albumin.	
12. Write the normal levels of blood urea, Creatinine.	
13. Write the ADA diagnostic criteria for diagnosis of diabetes mellitus.	
14. Name 3 methods for salting out of proteins.	

B.S.C. IN RADIOGRAPHY-III SEMESTER

FEBRUARY 2023

Time: 3 Hours

Max. Marks: 60

RADIATION PHYSICS PART-I

Q.P. Code:1914

Answers should be specific to the Questions asked.
Draw neat, labeled diagrams wherever necessary.

Question Number

Marks

LONG ESSAY QUESTIONS:

2 X 10 = 20

1. Discuss in detail coherent scattering, photoelectric absorption and Compton scattering.
2. Write in detail about thermoluminescent dosimeter.

SHORT ESSAY QUESTIONS:

5 X 5 = 25

3. ALARA principle.
4. Grids.
5. Interaction of X-rays with target.
6. Beam limiting devices.
7. Radioactivity.

SHORT ANSWER QUESTIONS:

5 X 3 = 15

8. Immobilization.
9. Use factors and occupancy factor.
10. Properties of X-ray.
11. Radiolysis of water.
12. Deterministic effect.

B.SC. IN ANESTHESIA TECHNOLOGY/PERFUSION TECHNOLOGY/CARDIAC CARE TECHNOLOGY -III SEMESTER FEBRUARY 2023

Time: 3 Hours

Max. Marks: 80

APPLIED PHARMACOLOGY

Q.P. Code:1917

Answers should be specific to the Questions asked.
Draw neat, labeled diagrams wherever necessary.

Question Number

Marks

LONG ESSAY QUESTIONS (Answer any TWO):

2 X 10 = 20

1. Classify route of drug administration. Write the advantages and disadvantages of intra venous (IV) route.
2. Classify skeletal muscle relaxants. Write the mechanism of action, therapeutic uses and adverse effect of pancuronium.
3. Enumerate NSAIDs. Write the MOA, uses and adverse effect of paracetamol.

SHORT ESSAY QUESTIONS (Answer any SIX):

6 X 5 = 30

4. Enumerate corticosteroids. Discuss its therapeutic uses & adverse effects.
5. Enumerate beta blockers. Write the therapeutic uses & adverse effects of propranolol.
6. Enumerate drug used for asthma. Discuss the mechanism of action & adverse effect of salbutamol.
7. Discuss the factors affecting the drug absorption & distribution with suitable examples.
8. Discuss the management of acute & chronic migraine. Add a note of prophylactic drug used to prevent migraine attack.
9. Enumerate antithyroid drugs. Discuss the management of hyperthyroidism & thyroid storm.
10. Write the advantages & disadvantages of transdermal patch. Explain its mechanism with suitable diagram.

SHORT ANSWER QUESTIONS (All are compulsory):

10 X 3 = 30

11. Treatment of organophosphorus poisoning.
12. Define bioavailability, plasma $t_{1/2}$ of drug and first pass metabolism.
13. Name **three** drugs used in cough with their mechanism of action.
14. Discuss the uses and adverse effect of radioactive iodine.
15. Name **3** opioid analgesics. Write the management of morphine poisoning.
16. Discuss the types of drug antagonism.
17. Discuss the uses and adverse effects of adrenaline.
18. Discuss the treatment of acute gout.
19. Discuss the principles of treatment of poisoning with suitable example.
20. Name **3** oral anti diabetes drugs. Write the treatment of type II DM.

B.S.C. IN NEUROSCIENCE TECHNOLOGY -III SEMESTER

FEBRUARY 2023

Time: 3 Hours

Max. Marks: 60

BASIC NEUROSCIENCES-I

Q.P. Code:1924

Answers should be specific to the Questions asked.
Draw neat, labeled diagrams wherever necessary.

Question Number

Marks

LONG ESSAY QUESTIONS (Answer any TWO):

2 X 10 = 20

1. Discuss the autonomic nervous system.
2. Discuss the function of temporal and parietal lobes.
3. Discuss the stages of sleep.

SHORT ESSAY QUESTIONS (Answer any FIVE):

5 X 5 = 25

4. Thalamus
5. Function of basal ganglia
6. Consciousness
7. Describe resting membrane potential
8. Corticospinal tract
9. Acetylcholine

SHORT ANSWER QUESTIONS (All are compulsory):

5 X 3 = 15

10. Noradrenaline
11. Motor neuron
12. Potassium channels
13. Importance of action potential
14. Threshold potential

B.SC. IN OPTOMETRY III SEMESTER – FEBRUARY 2023

Time: 3 Hours

Max. Marks: 60

OCULAR ANATOMY AND VISUAL OPTICS

Q.P. Code:0127

Answers should be specific to the Questions asked.
Draw neat, labeled diagrams wherever necessary.

Question Number

Marks

LONG ESSAY QUESTIONS (Answer any TWO):

2 X 10 = 20

1. Draw a neat diagram of cross section of eye and label the parts.
2. Explain in detail aqueous humour production and its role in maintaining the intraocular pressure.
3. Write in detail about the drugs used in refraction and procedure of cycloplegic refraction.

SHORT ESSAY QUESTIONS (Answer any FIVE):

5 X 5 = 25

4. Enumerate the various types of refractive error.
5. Enumerate the clinical signs of aphakia.
6. Draw a neat diagram of cross section of eyelid and label the parts.
7. Principles of auto-refractometer.
8. Enumerate the pupillary reaction.
9. Pinhole plate.

SHORT ANSWER QUESTIONS (All are compulsory):

5 X 3 = 15

10. Fundus picture of pathological myopia.
11. Ishihara chart.
12. Maddox plate.
13. Cylindrical lenses.
14. Vitreous body.

B.SC. RENAL DIALYSIS TECHNOLOGY-III SEMESTER

FEBRUARY 2023

Time: 3 Hours

Max. Marks: 60

CONCEPTS OF RENAL DISEASE AND ITS MANAGEMENT

Q.P. Code:0115

Answers should be specific to the Questions asked.
Draw neat, labeled diagrams wherever necessary.

Question Number

Marks

LONG ESSAY QUESTIONS:

2 X 10 = 20

1. Define nephrotic and nephritic syndromes. What are the differences between the two? Give four examples each. How will you investigate these conditions and what are the management principles?
2. Define AKI, causes, discuss in detail about diagnosis and treatment of AKI patient.

SHORT ESSAY QUESTIONS:

5 X 5 = 25

3. What is GFR? What are the stages of CKD?
4. Management of renal stone.
5. Write about the signs and symptoms, diagnosis of urinary tract infections.
6. Write the causes, diagnosis and management of obstructive nephropathy
7. Asymptomatic urinary abnormalities.

SHORT ANSWER QUESTIONS (Answer any THREE):

3 X 5 = 15

8. Mention **five** causes of CKD
9. Drugs causing AKI
10. Name **four** common bacteria that cause urinary tract infection
11. Urinary casts
12. Mention **four** common causes of nephrotic syndrome.

B.SC. IN CRITICAL CARE TECHNOLOGY-III SEMESTER

FEBRUARY 2023

Time: 3 Hours

Max. Marks: 60

APPLIED ANATOMY AND PHYSIOLOGY RELATED TO CRITICAL CARE

Q.P. Code:1114

Answers should be specific to the Questions asked.

Draw neat, labeled diagrams wherever necessary.

Question Number

Marks

LONG ESSAY QUESTIONS (Answer any TWO):

2 X 10 = 20

1. Discuss briefly the anatomy of tracheobronchial tree and applied anatomy of tracheobronchial tree.
2. Discuss systolic, diastolic, pulse pressure and mean arterial pressure and factors affecting the blood pressure.
3. Discuss the procedure of arterial cannulation, indication, sites, complications associated with arterial cannulation.

SHORT ESSAY QUESTIONS (Answer any FIVE):

5 X 5 = 25

4. Indications for inter costal drainage tube insertion.
5. Indication for endotracheal intubation.
6. Non-invasive ventilation.
7. Peak airway pressure.
8. Pericardiocentesis procedure.
9. Explain complications of central venous catheter insertion.

SHORT ANSWER QUESTIONS:

5 X 3 = 15

10. Tracheostomy care.
11. Complication of central venous catheter.
12. Preload.
13. Systemic vascular resistance.
14. Glasgow coma scale.

B.S.C. IN ENDOSCOPY TECHNOLOGY-III SEMESTER

FEBRUARY 2023

Time: 3 Hours

Max. Marks: 60

BASIC OF GASTROENTEROLOGY (SYMPTOMATOLOGY)

Q.P. Code:1117

Answers should be specific to the Questions asked.

Draw neat, labeled diagrams wherever necessary.

Question Number

Marks

LONG ESSAY QUESTIONS (Answer any TWO):

2 X 10 = 20

1. Causes for abdominal pain. Peptic ulcer disease its types, symptoms & evaluation.
2. Define lower GI bleed, causes and discuss diagnostic and therapeutic approach.
3. Mechanism and cause for Fecal incontinence, diagnostic test for Fecal incontinence.

SHORT ESSAY QUESTIONS (Answer any FIVE):

5 X 5 = 25

4. Write a note on function of pancreas.
5. Difference between small and large bowel diarrhoea.
6. Disorders associated with Vitamin B 12 deficiency and sources of vitamin B 12.
7. What do you mean by upper GI bleed and causes of the upper GI bleed?
8. What is bloating and cause of bloating?
9. Complications of GERD.

SHORT ANSWER QUESTIONS:

5 X 3 = 15

10. Enumerate causes for acute diarrhoea.
11. Write causes for recurrent jaundice.
12. Blood supply of stomach.
13. Risk factors for chronic constipation.
14. Enumerate causes for ascites.

**THIRD SEMESTER - B.Sc. NUTRITION AND DIETETICS
DEGREE EXAMINATION – FEBRUARY 2023**

Time: 3 Hours

Max. Marks: 80

ASSESSMENT OF NUTRITIONAL STATUS

Q.P. Code: 1120

Answers should be specific to the Questions asked.
Draw neat & labeled diagrams wherever necessary.
All the questions are compulsory.

Question Number

Marks

LONG ESSAY QUESTIONS (Answer any TWO):

2 X 10 = 20

1. What is Anthropometry? Discuss the direct methods in assessment of nutritional status.
2. What is nutritional surveillance? Write a note on applications of nutritional surveillance.
3. Discuss the process guidelines for communication for behavior change on nutrition. Add a note on application of computers for the same.

SHORT ESSAY QUESTIONS (Answer any EIGHT):

8 X 5 = 40

4. What is the significance of nutrition focused physical examination?
5. Write a note on 24hours diet recall and food frequency.
6. Write a short note on growth monitoring.
7. Write the nutritional clinical assessment for PEM.
8. What is the significance of measuring waist to hip ratio? What are the normal with ratio?
9. Write a note on growth monitoring.
10. Calculate BMI for an adult weighing 160lbs with a height of 6ft. comment on their nutritional status?
11. Write a detailed note on assessment of weight in pediatric population.
12. What are the steps involved in measuring skin fold thickness? Write its significance.

SHORT ANSWER QUESTIONS (All are compulsory):

10 X 2 = 20

13. Name the equipment used for recording height and weight across all age groups.
14. Define stunting.
15. What are the clinical signs and symptoms of iron deficiency?
16. Mention clinical signs of PEM.
17. What is nutritional screening?
18. What are biophysical assessments in nutritional assessment?
19. Name the equipment used to measure mid-upper arm circumference. What is the normal value for MUAC in health individuals?
20. List the indicators of nutritional status community.
21. Define wasting in nutrition.
22. What is social marketing in nutrition communication?

**THIRD SEMESTER – BACHELOR OF PUBLIC HEALTH
BACHELOR OF PUBLIC HEALTH (HONS)
DEGREE EXAMINATION – FEBRUARY 2023**

Time: 3 Hours

Max. Marks: 80

**FUNDAMENTALS OF DATA PROCESSING AND ANALYSIS-BASIC BIO
STATISTICS**

Q.P. Code:1859

Answers should be specific to the Questions asked.

Draw neat, labeled diagrams wherever necessary.

All questions are compulsory.

Question Number

Marks

LONG ESSAY QUESTION:

2 X 10 = 20

1. Explain different methods of collection of primary data.
2. Explain different types of graphs used to present quantitative data.

SHORT ESSAY QUESTIONS:

8 X 5 = 40

3. What is quartile? Explain briefly.
4. What are the steps to calculate the mode of grounded data? Explain with example.
5. Explain different parts of a table with example.
6. Differentiate between qualitative data and quantitative data.
7. What is geometric mean? Write its merits and demerits.
8. Explain laws of probability.
9. What is data? Classify types of data.
10. What is standard deviation? Explain the steps involved in standard deviation.

SHORT ANSWER QUESTIONS:

10 X 2 = 20

11. What is discrete variable? Give example.
12. What is categorical variable? Give example.
13. Name the scales of measurement.
14. What is range?
15. What are types of kurtosis?
16. What are the uses of standard deviation?
17. What is simple table?
18. What is mutually exclusive event?
19. What is outlier?
20. Differentiate between variable and constant giving examples.

**FIRST SEMESTER B.SC. IN HOTEL MANAGEMENT & CATERING
TECHNOLOGY DEGREE EXAMINATION – FEBRUARY 2023**

Time: 3 Hours

Max. Marks: 70

FUNDAMENTALS OF FOOD PRODUCTION PATISSERIE - I

Q.P. CODE: 1821

Answers should be specific to the Questions asked.
Draw neat, labeled diagrams wherever necessary.

Question Number	Marks
1. A) Cooking is an art – explain with examples. B) What is conduction type of heat? C) List the duties and responsibilities of sous chef.	(5) (5) (5)
2. A) List some examples with the reason of efficient fuels used in kitchen B) List the principles of cooking cereals. C) What are dry cooking methods?	(5) (5) (5)
3. A) What are the gravies used in Indian cuisine? B) Classify salads? C) List the primal cuts of chicken.	(5) (5) (5)
4. A) List the types of museum B) How are rice cooked in general? List the points to be kept in mind while cooking rice. C) How are green vegetables cooking in general? Suggest ways in to cook the green leafy vegetables.	(5) (5) (5)
5. What are mother sauces? Give the recipe on any one mother sauces.	(10)

**FIFTH SEMESTER B.SC. IN HOTEL MANAGEMENT & CATERING
TECHNOLOGY DEGREE EXAMINATION – FEBRUARY 2023**

Time: 3 Hours

Max. Marks: 70

ADVANCE CULINARY MANAGEMENT-I

Q.P. CODE: 1833

Answers should be specific to the Questions asked.

Draw neat, labeled diagrams wherever necessary.

Question Number		Marks
1.	A) What is pulverizer and how can it help us?	(5)
	B) How does time play a crucial role in bulk cooking?	(5)
	C) How would you store dairy products?	(5)
2.	A) Name atleast five colouring spices or commodities and what colour do they impart to kebab.	(5)
	B) What do you understand by the appraisal process?	(5)
	C) What is the difference between jhal and jhol in Bengali cooking?	(5)
3.	A) Why is basting essential for kebabs?	(5)
	B) Differentiate between puffed rice and flaked rice and name one dish made out of each.	(5)
	C) What are the two types of besan used in Indian sweets and what are their roles?	(5)
4.	A) List at least five comfort foods from north india and their specifications.	(5)
	B) How is deghi biryani different from kachey gosht ki biryani?	(5)
	C) List the factors influence the planning of a catering establishment?	(5)
5.	What is the concept of checking taar and how does it correspond to the stages of sugar boiling?	(10)

B.SC. RENAL DIALYSIS TECHNOLOGY-VI SEMESTER

FEBRUARY 2023

Time: 3 Hours

Max. Marks: 60

PAPER-I

Q.P. Code:1123

Answers should be specific to the Questions asked.
Draw neat, labeled diagrams wherever necessary.

Question Number	Marks
LONG ESSAY QUESTIONS:	2 X 10 = 20
1. What is Nephrotic syndrome its causes clinical features, investigation and management.	
2. Write brief about basic anatomy of kidney, bladder and ureter.	
SHORT ESSAY QUESTIONS:	5 X 5 = 25
3. Explain complications of renal stone diseases.	
4. RCC (Renal Cell Carcinoma) symptoms, diagnosis and treatment.	
5. Write in brief about histology of kidney.	
6. Write in brief anatomy femoral vein.	
7. What is diabetic nephropathy? Write its complication and treatment.	
SHORT ANSWER QUESTIONS (Answer any THREE):	3 X 5 = 15
8. Explain types of renal stone.	
9. Write in brief about anatomy femoral vein.	
10. Write about treatment of hypocalcaemia in dialysis patients.	
11. Role of haemodialysis in congestive cardiac failure.	
12. What are renal complication during pregnancy.	

B.Sc. IN MEDICAL LABORATORY TECHNOLOGY

III SEMESTER – FEBRUARY 2023

Time: 3 Hours

Max. Marks: 60

HISTOPATHOLOGY

Q.P. Code:1912

Answers should be specific to the Questions asked.
Draw neat, labeled diagrams wherever necessary.

Question Number

Marks

LONG ESSAY QUESTIONS (Answer any TWO):

2 X 10 = 20

1. Discuss quality control in histopathology laboratory.
2. Discuss various methods of decalcification.
3. Mention advantages & disadvantages of various microtomes. Add a note on cryostat.

SHORT ESSAY QUESTIONS (Answer any FIVE):

5 X 5 = 25

4. Tissue fixation.
5. Discuss tissue clearing.
6. Histokinette.
7. Preparation of haematoxylin.
8. Discuss reception of specimens and dispatch of histopathology reports.
9. Automated slide Stainer.

SHORT ANSWER QUESTIONS (All are compulsory):

5 X 3 = 15

10. Honing.
11. Blaring.
12. Preparation of eosin stain.
13. Paraffin wax.
14. Grossing station.

B.SC. IN RADIOGRAPHY-III SEMESTER

FEBRUARY 2023

Time: 3 Hours

Max. Marks: 60

RADIATION PHYSICS PART-II

Q.P. Code:1915

Answers should be specific to the Questions asked.
Draw neat, labeled diagrams wherever necessary.

Question Number

Marks

LONG ESSAY QUESTIONS:

2 X 10 = 20

1. Write in detail about rectifiers.
2. Write in detail principle, construction and working of rotating anode X-ray tube.

SHORT ESSAY QUESTIONS:

5 X 5 = 25

3. Write a note on grids.
4. Explain types of generators.
5. Write a note on the electromagnetic spectrum.
6. Write briefly about fluoroscopy.
7. Write about filament circuits and high voltage circuits.

SHORT ANSWER QUESTIONS:

5 X 3 = 15

8. Diodes.
9. Cones.
10. Tube rating.
11. Mass miniature radiography.
12. Mammography.

B.S.C. IN ANESTHESIA TECHNOLOGY-III SEMESTER

FEBRUARY 2023

Time: 3 Hours

Max. Marks: 60

INTRODUCTION TO ANESTHESIA TECHNOLOGY

Q.P. Code:1918

Answers should be specific to the Questions asked.

Draw neat, labeled diagrams wherever necessary.

Question Number

Marks

LONG ESSAY QUESTIONS (Answer any TWO):

2 X 10 = 20

1. a. Define endotracheal intubation.
b. Types of endotracheal tubes.
c. Indication of endotracheal intubation.
d. Complication of endotracheal intubation.
2. a. Enumerate various safety features of anaesthesia workstation.
b. Note on soda lime canister.
3. a. Describe various types of airway gadgets used for airway management in anaesthesia.
b. Write its complication.

SHORT ESSAY QUESTIONS (Answer any FIVE):

5 X 5 = 25

4. PIN index.
5. Nitrous Oxide cylinder.
6. Bain's circuit.
7. a. LMA with diagram.
b. Indication and contraindication.
8. Note on preparation of OT for general anaesthesia.
9. Oropharyngeal airway.

SHORT ANSWER QUESTIONS (All are compulsory):

5 X 3 = 15

10. Jackson Rees system.
11. Laryngoscopes.
12. WTG Morton.
13. Face Mask.
14. Magill forcep and uses.

B.SC. IN CARDIAC CARE TECHNOLOGY -III SEMESTER

FEBRUARY 2023

Time: 3 Hours

Max. Marks: 60

CARDIOLOGY

Q.P. Code:1922

Answers should be specific to the Questions asked.

Draw neat, labeled diagrams wherever necessary.

Question Number

Marks

LONG ESSAY QUESTIONS (Answer any TWO):

2 X 10 = 20

1. Epidemiology of rheumatic fever and add a note on the causes and prevention of RHD.
2. Define pulmonary hypertension, enlist the causes and add a note on diagnosis & treatment aspect of pulmonary hypertension.
3. Heart failure causes types, clinical features and treatment.

SHORT ESSAY QUESTIONS (Answer any FIVE):

5 X 5 = 25

4. Dilated cardiomyopathy.
5. Congenital pulmonary stenosis.
6. Megaloblastic anaemia.
7. 64 slice CT angiography.
8. Chronic renal failure.
9. Diagnosis and management of infective endocarditis.

SHORT ANSWER QUESTIONS:

5 X 3 = 15

10. Name 3 acyanotic CHD.
11. Name 3 cyanotic CHD.
12. Diagnostic features of cardiac tamponade.
13. Ankle brachial index.
14. Fluid therapy.

B.S.C. IN PERFUSION TECHNOLOGY -III SEMESTER

FEBRUARY 2023

Time: 3 Hours

Max. Marks: 60

BASICS OF PERFUSION TECHNOLOGY-I

Q.P. Code:1920

Answers should be specific to the Questions asked.
Draw neat, labeled diagrams wherever necessary.

Question Number

Marks

LONG ESSAY QUESTIONS:

2 X 10 = 20

1. What are the indications of coronary angiogram? What are the different views of coronary angiogram you know?
2. Write the long essay on spirometry, its findings & significance in cardiac surgery.

SHORT ESSAY QUESTIONS:

5 X 5 = 25

3. Significance of QRS complex in ECG.
4. Write a short note on PET scan of myocardium.
5. Explain cardiac causes of acute peripheral vascular diseases.
6. Compare transthoracic & transesophageal ECHO.
7. Causes of Cardiomegaly on chest X-ray.

SHORT ANSWER QUESTIONS:

5 X 3 = 15

8. X-ray findings of pleural effusion.
9. Which cardiac structures form right side heart border on chest X-ray?
10. Draw a trace of ventricular tachycardia & label it.
11. Name peripheral arteries through which coronary angiogram is performed routinely.
12. Thromboelastogram.

B.SC. IN NEUROSCIENCE TECHNOLOGY -III SEMESTER

FEBRUARY 2023

Time: 3 Hours

Max. Marks: 60

APPLIED TECHNOLOGY-I BASICS OF CLINICAL NEUROPHYSIOLOGY

Q.P. Code:1925

Answers should be specific to the Questions asked.

Draw neat, labeled diagrams wherever necessary.

Question Number

Marks

LONG ESSAY QUESTIONS (Answer any TWO):

2 X 10 = 20

1. Discuss the principles and use of filters in clinical neurophysiology.
2. Enumerate and describe the different electrodes used in electroencephalography (EEG).
3. Discuss the measures to ensure electrical safety in clinical neurophysiological investigations.

SHORT ESSAY QUESTIONS (Answer any FIVE):

5 X 5 = 25

4. Principles of analog to digital conversion.
5. How is common mode rejection used in clinical neurophysiology?
6. What is impedance? How do you reduce impedance in the laboratory?
7. What are the principles of sampling rate in clinical neurophysiology?
8. Time constant.
9. Briefly describe the importance and functions of amplifiers.

(1+4)

SHORT ANSWER QUESTIONS (All are compulsory):

5 X 3 = 15

10. What is band pass filter?
11. Use of signal triggering in clinical neurophysiology.
12. 50 Hz filter.
13. Methods of data storage in electroencephalography.
14. What is aliasing?

B.SC. IN OPTOMETRY III SEMESTER – FEBRUARY 2023

Time: 3 Hours

Max. Marks: 60

PHYSICAL OPTICS AND GEOMETRIC OPTICS

Q.P. Code:0128

Answers should be specific to the Questions asked.
Draw neat, labeled diagrams wherever necessary.

Question Number

Marks

LONG ESSAY QUESTIONS (Answer any TWO):

2 X 10 = 20

1. How will you construct Nicol prism? Explain the uses of Nicol prism as an analyzer.
2. Explain the refraction of light on a plane surface according to Fermat's principle.
3. Discuss the construction of Brodhuon photometer with neat suitable diagram.

SHORT ESSAY QUESTIONS (Answer any FIVE):

5 X 5 = 25

4. Explain total internal reflection with suitable diagram.
5. Write a note on interference phenomenon in optics.
6. Explain interference in thin films.
7. Write about wave theory of light.
8. Explain the terms first principal focus and second principal focus in a lens.
9. Write a brief note on properties of zone plate.

SHORT ANSWER QUESTIONS (All are compulsory):

5 X 3 = 15

10. Write a dual nature of light.
11. Write about condition for sustained interference.
12. What are Fresnel and frounhofer diffraction pattern?
13. What is polarization of light?
14. What is Fermat's principal?

B.SC. RENAL DIALYSIS TECHNOLOGY-III SEMESTER-FEBRUARY 2023

Time: 3 Hours

Max. Marks: 60

APPLIED ASPECTS OF PATHOLOGY AND MICROBIOLOGY

Answers should be specific to the Questions asked.

Draw neat, labeled diagrams wherever necessary.

Use separate answer books for Section A and Section B

SECTION A : APPLIED ASPECTS OF PATHOLOGY Q.P. CODE : 0116 [30 Marks]

Question Number	Marks
LONG ESSAY QUESTIONS (Answer any ONE):	1 X 10 = 10
1. Discuss clinical manifestation of various renal diseases.	(10)
2. Classify Glomerular diseases. Discuss pathogenesis of Glomerular injury.	(4+6)
SHORT ESSAY QUESTIONS (Answer any TWO):	2 X 5 = 10
3. Benign nephrosclerosis.	
4. Discuss pathogenesis of acute kidney injury.	
5. Discuss gross & microscopy of chronic pyelonephritis.	
SHORT ANSWER QUESTIONS (All are compulsory):	5 X 2 = 10
6. Name four causes of nephrotic syndrome.	
7. Name two complications of acute pyelonephritis.	
8. Name two causes of flea bitten kidney.	
9. Name four renal cystic diseases.	
10. Name four causes of contracted kidney.	

SECTION B : MICROBIOLOGY ...Q.P. CODE : 0117 [30 Marks]

Question Number	Marks
LONG ESSAY QUESTIONS (Answer any ONE):	1 X 10 = 10
1. Classify Hepatotrophic viruses. Describe the mode of transmission and pathogenesis of Hepatitis – B virus infection.	
2. List the microorganisms causing urinary tract infections. Describe the methods for sampling, culture & sensitivity tests done for such infections.	
SHORT ESSAY QUESTIONS (Answer any TWO):	2 X 5 = 10
3. Describe universal safety precautions.	
4. Describe the mode of transmission and pathogenesis of HIV infection.	
5. Write a brief note on transfusion associated infections.	
SHORT ANSWER QUESTIONS (All are compulsory):	5 X 2 = 10
6. List four micro-organism causing opportunistic infections.	
7. Write two precautions to be taken while collecting any clinical sample for culture and sensitivity.	
8. Name two laboratory tests used for diagnosis of Hepatitis-B infection.	
9. Name the mandatory screening tests done for infection diseases prior to renal dialysis.	
10. Write the mode of infection for Hepatitis-A and Hepatitis-C virus infections.	

B.SC. IN CRITICAL CARE TECHNOLOGY-III SEMESTER

FEBRUARY 2023

Time: 3 Hours

Max. Marks: 60

APPLIED PHARMACOLOGY IN CRITICAL CARE

Q.P. Code:1115

Answers should be specific to the Questions asked.

Draw neat, labeled diagrams wherever necessary.

Question Number

Marks

LONG ESSAY QUESTIONS (Answer any TWO):

2 X 10 = 20

1. Classify anti adrenergics. Write the mechanism of action, uses and adverse effect of propranolol.
2. Classify routes of drug administration. Write the advantages and disadvantages of oral route.
3. Classify NSAIDs. Write the mechanism of action, uses and adverse effects of Aspirin.

SHORT ESSAY QUESTIONS (Answer any FIVE):

5 X 5 = 25

4. Discuss the enteral routes of drug administration with suitable examples.
5. Write the uses and adverse effect of atropine.
6. Enumerate ACE inhibitors. Write the adverse effect of captopril.
7. Discuss the uses and adverse effects of glucocorticoids.
8. Discuss the modes of action of drug with suitable examples.
9. Enumerate antihistamins. Discuss their uses and adverse effects.

SHORT ANSWER QUESTIONS:

5 X 3 = 15

10. Enumerate mucokinetic agents. Write their uses.
11. Name **three** sedatives. Write their uses.
12. Name **three** disinfectants. Write their uses & applications in hospital.
13. Name **three** antifungal drugs. Write their mechanism of action.
14. Name **three** vasodilation. Write their uses.

B.SC. IN ENDOSCOPY TECHNOLOGY-III SEMESTER

FEBRUARY 2023

Time: 3 Hours

Max. Marks: 60

APPLIED ASPECTS OF PATHOLOGY

Q.P. Code:1118

Answers should be specific to the Questions asked.
Draw neat, labeled diagrams wherever necessary.

Question Number

Marks

LONG ESSAY QUESTIONS (Answer any TWO):

2 X 10 = 20

1. What is cholangiocarcinoma? Describe type's clinical feature and pathology features.
2. What is cirrhosis of liver, causes, and pathological features?
3. Write note on carcinoma of pancreas aetiology, clinical feature and pathological feature.

SHORT ESSAY QUESTIONS (Answer any FIVE):

5 X 5 = 25

4. Write a short note on Peri-Ampullary carcinoma
5. Difference between in Crohn's disease vs intestinal tuberculosis.
6. Define esophagitis, types and pathogenesis.
7. Classification of colorectal polyps.
8. Pathogenesis of H. Pylori infection.
9. Write note on achalasia cardia, its clinical feature and pathogenesis.

SHORT ANSWER QUESTIONS:

5 X 3 = 15

10. Complication of chronic pancreatitis.
11. Enumerate pathological types of colon cancer.
12. Enumerate causes of Ilio-cercal ulcer.
13. Enumerate causes of esophagitis.
14. Complication of ulcerative colitis.

**THIRD SEMESTER - B.Sc. NUTRITION AND DIETETICS
DEGREE EXAMINATION – FEBRUARY 2023**

Time: 3 Hours

Max. Marks: 80

BASIC DIETETICS

Q.P. Code: 1121

Answers should be specific to the Questions asked.
Draw neat & labeled diagrams wherever necessary.
All the questions are compulsory.

Question Number

Marks

LONG ESSAY QUESTIONS (Answer any TWO):

2 X 10 = 20

1. Explain FODMAP diet.
2. Define medical nutrition therapy. Explain routine hospital diets.
3. Explain the effect of drugs on appetite.

SHORT ESSAY QUESTIONS (Answer any EIGHT):

8 X 5 = 40

4. What are the benefits of losing weight gradually and steadily?
5. Write the differences between enteral and parenteral feeding.
6. Explain the components of medical nutrition therapy.
7. State the principles involved in dietary management of HIV patients.
8. Define the stages of Iron deficiency.
9. Explain the diagnosis of food allergy.
10. What are the symptoms of peptic ulcer?
11. What is fever? What are its causes? List types of fever.
12. What is dumping syndrome?

SHORT ANSWER QUESTIONS (All are compulsory):

10 X 2 = 20

13. Write the **four** groups of dietary sources.
14. Explain the term refeeding syndrome.
15. Define medical nutrition therapy.
16. What is caloric value of 1 pound body fat?
17. Write Harris benediet's equation to calculate BMR in both males and females.
18. What is normal range of Hemoglobin for females and males?
19. What is food allergy?
20. What is fever?
21. What are the grades of obesity?
22. How do you evaluate body fat?

**THIRD SEMESTER – BACHELOR OF PUBLIC HEALTH
BACHELOR OF PUBLIC HEALTH (HONS)
DEGREE EXAMINATION – FEBRUARY 2023**

Time: 3 Hours

Max. Marks: 80

FUNDAMENTALS OF HEALTH EDUCATION AND COMMUNICATION

Q.P. Code:1860

Answers should be specific to the Questions asked.

Draw neat, labeled diagrams wherever necessary.

All questions are compulsory.

Question Number	Marks
LONG ESSAY QUESTIONS:	2 X 10 = 20
1. Write in detail the principles of communication with a note on effects of communication.	(7+3)
2. Define health education. Write in detail about the principles of health education in relation to health promotion.	
SHORT ESSAY QUESTIONS:	8 X 5 = 40
3. List the constructs of health belief model. What are the limitations and challenges to the health belief model?	
4. Write a note on different lesson plans.	
5. Write in detail about preparation, uses, advantages and disadvantages of puppets and pamphlets.	
6. Role of health care providers in health education.	
7. Give the steps in the communication process in brief.	
8. Define health promotion. Write in detail about the objectives of health education and promotion.	
9. Write a note on motivational model of health education.	
10. Write short note on brain storming.	
SHORT ANSWER QUESTIONS:	10 X 2 = 20
11. Define communication.	
12. Enlist any four mass media used in communication.	
13. Define health education and propaganda.	
14. Give the four advantages and four disadvantages of radio	
15. Enumerate the elements of counseling.	
16. What are the three stages of a decision making process?	
17. Write about E-media.	
18. Enumerate strategies of health promotion.	
19. List characteristics of a good lesson plan.	
20. What are the phases in the behavior change process?	

**FIRST SEMESTER B.SC. IN HOTEL MANAGEMENT & CATERING
TECHNOLOGY DEGREE EXAMINATION – FEBRUARY 2023**

Time: 3 Hours

Max. Marks: 70

FUNDAMENTALS OF FOOD & BEVERAGE SERVICE - I

Q.P. CODE: 1822

Answers should be specific to the Questions asked.
Draw neat, labeled diagrams wherever necessary.

Question Number		Marks
1.	A) Briefly explain the various sectors of Food & Beverage Operations.	(5)
	B) Explain the various types of Restaurant and their characteristics.	(5)
	C) Draw the staff organization structure of food and beverage department of a 5-star hotel.	(5)
2.	A) Explain still room.	(5)
	B) Explain Personal hygiene for F&B Staff.	(5)
	C) Explain Dispense bar.	(5)
3.	A) Classify Alcoholic and non-alcoholic beverages with examples.	(5)
	B) Name any seven types of Trollies used in restaurants.	(5)
	C) Explain the various rules to be observed while laying a table	(5)
4.	A) List the features of a coffee shop.	(5)
	B) What is a grill room? Name four menu items produced in a grill room	(5)
	C) What are fast food outlets? Name three Indian and three international brands.	(5)
5.	Draw the staff organization structure of Banquet department of a 5-star hotel. And explain the duties and responsibilities of food & beverage manager.	(10)

**FIFTH SEMESTER B.SC. IN HOTEL MANAGEMENT & CATERING
TECHNOLOGY DEGREE EXAMINATION – FEBRUARY 2023**

Time: 3 Hours

Max. Marks: 70

ADVANCE FOOD AND BEVERAGE MANAGEMENT-I

Q.P. CODE: 1834

Answers should be specific to the Questions asked.

Draw neat, labeled diagrams wherever necessary.

Question Number		Marks
1.	A) Explain the importance of inventory system in a hotel or restaurant.	(5)
	B) Explain importance of branding in food and beverage industry.	(5)
	C) What are the advantages of having competition in food and beverage sectors?	(5)
2.	A) Explain menu mix with its percentage of mix.	(5)
	B) Explain the role of online aggregators in restaurant business.	(5)
	C) Explain the role of menu as an in house marketing tool.	(5)
3.	A) Explain issues in menu planning.	(5)
	B) Explain the elements in costing.	(5)
	C) How can restaurants avoid menu fatigue?	(5)
4.	A) What do you mean by internal competition? Explain.	(5)
	B) What are the steps to maintain quality in food and beverages?	(5)
	C) Explain the importance of briefing and debriefing in a hotel.	(5)
5.	A) What are the key responsibilities of a food and beverage manager?	(5)
	B) Explain the importance of aesthetics of a specialty restaurant.	(5)

B.SC. RENAL DIALYSIS TECHNOLOGY-VI SEMESTER

FEBRUARY 2023

Time: 3 Hours

Max. Marks: 60

PAPER-II

Q.P. Code:1124

Answers should be specific to the Questions asked.
Draw neat, labeled diagrams wherever necessary.

Question Number

Marks

LONG ESSAY QUESTIONS:

2 X 10 = 20

1. What is AKI and courses clinical features investigation?
2. Write in brief about development of kidney explain.

SHORT ESSAY QUESTIONS:

5 X 5 = 25

3. Write courses and clinical features of UTI.
4. What is pyelonephritis, write courses, investigation and treatment causes?
5. Write about blood supply of kidney.
6. What is hypokalaemia and hyperkalaemia explain its importance in CKD patients.
7. Explain in detail about machine of urine formation.

SHORT ANSWER QUESTIONS (Answer any THREE):

3 X 5 = 15

8. How do you administrate drugs in dialysis patient?
9. What protamine sulphate and its uses.
10. Write about non pharmacologic Rx of hypertension.
11. SLED.
12. Write in brief about femoral vein anatomy and course.

B.Sc. IN MEDICAL LABORATORY TECHNOLOGY

III SEMESTER – FEBRUARY 2023

Time: 3 Hours

Max. Marks: 60

BACTERIOLOGY

Q.P. Code:1913

Answers should be specific to the Questions asked.

Draw neat, labeled diagrams wherever necessary.

Question Number

Marks

LONG ESSAY QUESTIONS (Answer any TWO):

10 X 2 = 20

1. Enlist the infection caused by staphylococci. Describe their pathogenesis and laboratory diagnosis. (2+3+5)
2. Discuss the etiopathogenesis of gonorrhoea. Describe its laboratory diagnosis. Add a note on its complications. (3+5+2)
3. Enumerate the pathogens causing urinary tract infection. Describe its pathogenesis and laboratory diagnosis. (2+3+5)

SHORT ESSAY QUESTIONS (Answer any FIVE):

5 X 5 = 25

4. Enlist the bacteria causing dysentery. Add a note on laboratory diagnosis of dysentery.
5. Describe the morphology of corynebacteria. Write the laboratory diagnosis of diphtheria.
6. Discuss the etiopathogenesis and laboratory diagnosis of tetanus.
7. Define hospital-acquired infections. Add a note on its types and sources.
8. Discuss the etiopathogenesis and laboratory diagnosis of infective endocarditis.
9. Describe the etiopathogenesis and laboratory diagnosis of infective endocarditis.

SHORT ANSWER QUESTIONS (All are compulsory):

5 X 3 = 15

10. Enumerate **three** important the bacteria causing urinary tract infections.
11. Describe the morphology of M. leprae with help of a diagram.
12. Give examples of **three** anaerobic bacteria and three culture media used for their growth.
13. List **three** important bacteria causing meningitis.
14. Write **three** major precautions to be taken while collecting pus sample for bacterial culture.

B.SC. IN RADIOGRAPHY-III SEMESTER

FEBRUARY 2023

Time: 3 Hours

Max. Marks: 60

RADIOGRAPHIC PHOTOGRAPHS

Q.P. Code:1916

Answers should be specific to the Questions asked.
Draw neat, labeled diagrams wherever necessary.

Question Number

Marks

LONG ESSAY QUESTIONS:

2 X 10 = 20

1. Explain in detail about construction of X-ray cassette and its types.
2. Explain in detail about formation of latent image.

SHORT ESSAY QUESTIONS:

5 X 5 = 25

3. Write a note on hot air and infra-red drying.
4. Write a note on penumbra and its way to decrease penumbra.
5. Write a note on spectral sensitivity of X-ray films.
6. Write a note on screen efficiency and intensification factor.
7. Write a note on indirect digital radiography.

SHORT ANSWER QUESTIONS:

5 X 3 = 15

8. Write a short note on fluorescence and phosphorescence.
9. Mention types of film faults and enumerate various fogging in films, causes & prevention.
10. Write a short note on constituents of fixer
11. Write a short note on advantages and disadvantages of computed radiography.
12. Write a short note on care of cassettes.

B.SC. IN ANESTHESIA TECHNOLOGY -III SEMESTER

FEBRUARY 2023

Time: 3 Hours

Max. Marks: 60

APPLIED TECHNOLOGY IN ANESTHESIA

Q.P. Code:1919

Answers should be specific to the Questions asked.
Draw neat, labeled diagrams wherever necessary.

Question Number

Marks

LONG ESSAY QUESTIONS (Answer any TWO):

2 X 10 = 20

1. Minimum mandatory monitoring required of anaesthesia. Explain one in detail.
2. Write in detail about sterilization of anaesthesia workstation and breathing circuit.
3. Classify oxygen delivery device. Note on AMBU bag with diagram.

SHORT ESSAY QUESTIONS (Answer any FIVE):

5 X 5 = 25

4. What is chemical sterilization? Explain in detail.
5. Thiopentone sodium.
6. Write in detail about capnography.
7. Classification of muscle relaxant. Note on succinylcholine.
8. Humidifiers.
9. Venture mark.

SHORT ANSWER QUESTIONS (All are compulsory):

5 X 3 = 15

10. Write a note on sterilization of epidural set.
11. Benzodiazepines.
12. Oxygen hood with diagram.
13. Basic monitoring in recovery & list oxygen therapy used in recovery.
14. Premedication in children.

B.SC. IN CARDIAC CARE TECHNOLOGY -III SEMESTER

FEBRUARY 2023

Time: 3 Hours

Max. Marks: 60

BASICS OF CARDIAC TECHNOLOGY

Q.P. Code:1923

Answers should be specific to the Questions asked.
Draw neat, labeled diagrams wherever necessary.

Question Number

Marks

LONG ESSAY QUESTIONS (Answer any TWO):

2 X 10 = 20

1. Discuss the source of biomedical waste & its management.
2. Basics of M-node, 2D & Doppler echo.
3. Describe the normal ECG. Add a note on wave forms and time intervals.

SHORT ESSAY QUESTIONS (Answer any FIVE):

5 X 5 = 25

4. The electrical axis.
5. Echocardiography transducers.
6. Precordial pattern of ECG.
7. Lead placement of ECG.
8. Basic views of 2D Echocardiography.
9. Left atrial and right atrial enlargement.

SHORT ANSWER QUESTIONS:

5 X 3 = 15

10. Methods of rate calculation by ECG.
11. QT interval.
12. ECG in left ventricular hypertrophy.
13. The electrocaschiographic paper.
14. Limb leads in ECG.

B.S.C. IN PERFUSION TECHNOLOGY -III SEMESTER

FEBRUARY 2023

Time: 3 Hours

Max. Marks: 60

BASICS OF PERFUSION TECHNOLOGY-II

Q.P. Code:1921

Answers should be specific to the Questions asked.
Draw neat, labeled diagrams wherever necessary.

Question Number

Marks

LONG ESSAY QUESTIONS:

2 X 10 = 20

1. Enumerate normal findings of arterial blood gas analysis & write a short note on metabolic acidosis.
2. What are the components of extracorporeal circulation machine & their functional significance?

SHORT ESSAY QUESTIONS:

5 X 5 = 25

3. What do you understand by blood transfusion?
4. Compare bicaval & cavo-atrial venous drainage.
5. Compare merits & demerits of antegrade & retrograde cardioplegia delivery.
6. Occlusive pumps.
7. Blood failure on extra corporeal circulation.

SHORT ANSWER QUESTIONS:

5 X 3 = 15

8. Vents in cardiac surgery.
9. Name any **three** arterial cannulas.
10. Complications & disadvantages of retrograde cardioplegia.
11. Filters in CPB.
12. Connectors used in CPB.

B.S.C. IN NEUROSCIENCE TECHNOLOGY -III SEMESTER

FEBRUARY 2023

Time: 3 Hours

Max. Marks: 60

**APPLIED TECHNOLOGY-II BASIC OF PRINCIPLES OF
ELECTROENCEPHALOGRAPHY**

Q.P. Code:1926

Answers should be specific to the Questions asked.
Draw neat, labeled diagrams wherever necessary.

Question Number

Marks

LONG ESSAY QUESTIONS (Answer any TWO):

2 X 10 = 20

1. Describe the activation procedures used in EEG.
2. Describe the different artefacts encountered in EEG recording.
3. Describe the principles of EEG recording.

SHORT ESSAY QUESTIONS (Answer any FIVE):

5 X 5 = 25

4. Describe the various referential montages in EEG recording.
5. What is the rationale for using 10-20 EEG electrode placements?
6. EEG findings during rapid eye movement (REM) sleep.
7. Equipment generated artefacts in EEG recording.
8. Briefly discuss the methods to reduce ECG artefact.
9. Describe the characteristics of alpha activity.

SHORT ANSWER QUESTIONS (All are compulsory):

5 X 3 = 15

10. K- Complex.
11. Pulsation artefact.
12. Common average reference.
13. Significance of vertex sharp wave.
14. Laplacian montage.

B.SC. IN OPTOMETRY III SEMESTER – FEBRUARY 2023

Time: 3 Hours

Max. Marks: 60

OPTOMETRY AND DISPENSING OPTICS

Q.P. Code:0129

Answers should be specific to the Questions asked.
Draw neat, labeled diagrams wherever necessary.

Question Number

Marks

LONG ESSAY QUESTIONS (Answer any TWO):

2 X 10 = 20

1. What is sagittal depth and derive sag formula?
2. What is spectacle frame? Write in detail about the types of frames available?
3. Write detail about frame measurements (Boxing and Datum system) and parts of a spectacle frame.

SHORT ESSAY QUESTIONS (Answer any FIVE):

5 X 5 = 25

4. Write a note on safety lenses.
5. What are obliquely crossed cylinders? Discuss their properties.
6. Write about mirror coating, hard coating and hydrophobic coating.
7. Elaborate on lens ordering and verification.
8. What are the various types of temples and bridges of spectacle frame?
9. Write about polarizing lens (Lens details, principle and indications).

SHORT ANSWER QUESTIONS (All are compulsory):

5 X 3 = 15

10. What are tints and filters?
11. Write about forms of lenses.
12. Define the following: surface power, back vertex power and front vertex power.
13. What is tilt induced power?
14. Mention any **two** lens materials.

B.SC. IN CRITICAL CARE TECHNOLOGY-III SEMESTER

FEBRUARY 2023

Time: 3 Hours

Max. Marks: 60

APPLIED MICROBIOLOGY AND INFECTION CONTROL

Q.P. Code:1116

Answers should be specific to the Questions asked.

Draw neat, labeled diagrams wherever necessary.

Question Number

Marks

LONG ESSAY QUESTIONS (Answer any TWO):

2 X 10 = 20

1. Discuss nosocomial/hospital acquired infection, definition, types and strategies to prevent them.
2. Discuss in brief various community-acquired infections.
3. Universal safety precautions.

SHORT ESSAY QUESTIONS (Answer any FIVE):

5 X 5 = 25

4. Various methods of sterilization.
5. Disposal of infectious waste.
6. Name various modes of spread of infection in ICU.
7. How to prevent CRBSI/CLABSI.
8. Autoclaving.
9. Discuss steps of hand hygiene.

SHORT ANSWER QUESTIONS:

5 X 3 = 15

10. Disinfection.
11. Name various categories of agents causing infection in ICU.
12. CAUTI.
13. Povidone iodine.
14. Ventilator associated pneumonia.

B.SC. IN ENDOSCOPY TECHNOLOGY-III SEMESTER

FEBRUARY 2023

Time: 3 Hours

Max. Marks: 60

APPLIED ASPECTS OF MICROBIOLOGY

Q.P. Code:1119

Answers should be specific to the Questions asked.

Draw neat, labeled diagrams wherever necessary.

Question Number

Marks

LONG ESSAY QUESTIONS (Answer any TWO):

2 X 10 = 20

1. Enumerate causative organism of diarrheal disease. Write about investigations of diarrheal disease.
2. Explain in detail about waste segregation and disposal of waste management.
3. What is sterilisation? Enumerate different methods of sterilisation. Write advantages of sterilisation.

SHORT ESSAY QUESTIONS (Answer any FIVE):

5 X 5 = 25

4. Write about Hepatitis-B immunisation.
5. Enumerate aetiology of diarrheal disease.
6. Enumerate different types of Hepatitis.
7. Enumerate causes of gastroenteritis.
8. Enumerate methods of disinfection.
9. Write short note on waste management.

SHORT ANSWER QUESTIONS:

5 X 3 = 15

10. Enumerate secondary causes for constipation.
11. Write symptoms associated with liver dysfunction.
12. Blood supply of rectum.
13. Alarm symptoms in the patient with chronic constipation.
14. Enumerate causes for vomiting.

**THIRD SEMESTER - B.Sc. NUTRITION AND DIETETICS
DEGREE EXAMINATION – FEBRUARY 2023**

Time: 3 Hours

Max. Marks: 80

NUTRITION IN THE LIFECYCLE-II

Q.P. Code: 1122

Answers should be specific to the Questions asked.

Draw neat & labeled diagrams wherever necessary.

All the questions are compulsory.

Question Number

Marks

LONG ESSAY QUESTIONS (Answer any TWO):

2 X 10 = 20

1. Define balanced diet. Write the dietary guidelines to reduce the cost of a meal.
2. What is the process of ageing? Briefly explain the degenerative diseases.
3. Write in detail about nutritional requirements of adolescents.

SHORT ESSAY QUESTIONS (Answer any EIGHT):

8 X 5 = 40

4. Write the benefits of consumption of dietary fiber.
5. Write the characteristics of reference man and reference woman.
6. Explain in detail about different physical activities of elderly and its impact on health.
7. Write the dietary guidelines to plan a diet for adults.
8. What are the physical and psychological signs for bulimia nervosa?
9. Describe dietary guidelines for old age.
10. Discuss role of physical activity in reducing risk of lifestyle disorders.
11. Plan a low cost balanced diet for adolescent girl and justify.
12. Briefly write on nutritional requirement for adults.

SHORT ANSWER QUESTIONS (All are compulsory):

10 X 2 = 20

13. Write importance of consumption of calcium rich food for elderly.
14. When is world osteoporosis day celebrated?
15. What is RDA of iron for adolescents?
16. Name different types of physical activities for adults.
17. What is obesity? Write any two causes of obesity.
18. Role of essential fatty acids in adolescents.
19. Define antioxidants.
20. What are additional nutrient requirements during pregnancy?
21. What is obesity? Write any two causes of obesity.
22. Define anorexia nervosa.

**THIRD SEMESTER – BACHELOR OF PUBLIC HEALTH
BACHELOR OF PUBLIC HEALTH (HONS)
DEGREE EXAMINATION – FEBRUARY 2023**

Time: 3 Hours

Max. Marks: 80

RURAL, URBAN & TRIBAL HEALTH

Q.P. Code: 1861

Answers should be specific to the Questions asked.
Draw neat, labeled diagrams wherever necessary.
All questions are compulsory.

Question Number

Marks

LONG ESSAY QUESTIONS:

2 X 10 = 20

1. Define tribe and tribal health. Write the classification of tribes in India.
2. Define rural health. Explain the concept of rural urban interactions.

SHORT ESSAY QUESTIONS:

8 X 5 = 40

3. Discuss different health problems of urbanization.
4. Explain the different morbidities in rural area.
5. Explain about urban primary health center.
6. Write about strategies of NRHM.
7. Explain the role and functions of voluntary organizations in rural development.
8. What are health problems caused due to migration.
9. What is clan and kinship?
10. Explain rural credit system in India.

SHORT ANSWER QUESTIONS:

10 X 2 = 20

11. Name any **four** tribal welfare programmes in India.
12. List any **four** schemes/programmes implemented for empowerment of women in India?
13. What is population covered by PHC and sub centre in tribal of hilly areas and plain area.
14. Name any **four** tribes in India.
15. What is microfinance?
16. Write the racial classification of tribes in India.
17. What is PHC?
18. Which are the common disabilities among rural adults?
19. Mention any **two** importances of SHGs in rural area.
20. Define urban health.

**FIRST SEMESTER B.SC. IN HOTEL MANAGEMENT & CATERING
TECHNOLOGY DEGREE EXAMINATION – FEBRUARY 2023**

Time: 3 Hours

Max. Marks: 70

FUNDAMENTALS OF FRONT OFFICE - I

Q.P. CODE: 1823

Answers should be specific to the Questions asked.

Draw neat, labeled diagrams wherever necessary.

Question Number		Marks
1.	A) Describe the evolution and growth of hospitality industry in the world.	(5)
	B) Explain the classification of hotels according to size and level of service.	(5)
	C) Explain the star rating system for hotels followed in India.	(5)
2.	A) Explain the purpose of vision and mission statements	(5)
	B) Draw the hierarchy of the front office department.	(5)
	C) Describe how other departments of the hotel coordinate with front office to create customer satisfaction.	(5)
3.	A) Explain the layout of a hotel lobby.	(5)
	B) Describe the left luggage procedure followed at Bell Desk.	(5)
	C) Enumerate the duties and responsibilities of the bell boy.	(5)
4.	A) What are the different types of reservation in a hotel?	(5)
	B) Explain the following: a) GDS b) Walking the guest c) Block booking d) Rooming list d) Turn away report.	(5)
	C) Describe the sources of reservation in a hotel.	(5)
5.	A) Explain the check-in procedure for a Scanty Baggage guest.	(5)
	B) If you were the Front Office manager of a hotel and you received a bomb threat, what steps would you take to ensure safety of the guests?	(5)

**FIFTH SEMESTER B.SC. IN HOTEL MANAGEMENT & CATERING
TECHNOLOGY DEGREE EXAMINATION – FEBRUARY 2023**

Time: 3 Hours

Max. Marks: 70

FRONT OFFICE MANAGEMENT - I

Q.P. CODE: 1835

Answers should be specific to the Questions asked.
Draw neat, labeled diagrams wherever necessary.

Question Number	Marks
1. A) Explain the concepts of capacity management, discount allocation and duration control.	(5)
B) Explain how location of room, room size and bed configuration can be useful in optimizing revenue.	(5)
C) State your views on overbooking as an inventory management strategy.	(5)
2. A) Describe the basic types of forecasts and their purpose.	(5)
B) What are the common mistakes that a revenue manager may make while preparing forecasts?	(5)
C) Discuss the different types of data that may be useful to a revenue manager.	(5)
3. A) Discuss the relationship between quality, service and price.	(5)
B) Describe the factors that can impact differential pricing.	(5)
C) Describe yield in front office and explain how it can be of use to a revenue manager.	(5)
4. A) Explain fade rate and the implications of using fade rate.	(5)
B) Distinguish between Merchant model and Agency model used by third party internet sites.	(5)
C) Explain the fees that affect net ADR yield.	(5)
5. List ten strategies that can be implemented in a hotel during low demand.	(10)

**FIRST SEMESTER B.Sc. IN HOTEL MANAGEMENT & CATERING
TECHNOLOGY DEGREE EXAMINATION – FEBRUARY 2023**

Time: 3 Hours

Max. Marks: 70

FUNDAMENTALS OF HOUSEKEEPING - I

Q.P. CODE: 1824

Answers should be specific to the Questions asked.
Draw neat, labeled diagrams wherever necessary.

Question Number		Marks
1.	A) Explain Job Breakdown.	(2)
	B) Mention any six points a job specification should possess.	(3)
	C) What is known as Room Assignment?	(5)
	D) What do you understand by Deep Cleaning?	(5)
2.	A) Recall 'On Premises Laundry'.	(2)
	B) Explain 'Valet'.	(3)
	C) List down any five responsibilities of Housekeeping department.	(5)
	D) Describe the lost and found procedures in detail.	(5)
3.	A) What is lost and found?	(2)
	B) Write any three points to be considered in planning a layout of Housekeeping department.	(3)
	C) What is a floor pantry?	(5)
	D) List down any five points on coordination of housekeeping with front office department.	(5)
4.	A) Draw the layout of the housekeeping department.	(5)
	B) What is the purpose of organization structure?	(5)
	C) Describe Job order form.	(5)
5.	A) List down any five duties and responsibilities of executive housekeeper.	(5)
	B) Explain the categories of how housekeeping personnel are divided.	(5)

**FIFTH SEMESTER B.SC. IN HOTEL MANAGEMENT & CATERING
TECHNOLOGY DEGREE EXAMINATION – FEBRUARY 2023**

Time: 3 Hours

Max. Marks: 70

ACCOMMODATION MANAGEMENT - I

Q.P. CODE: 1836

Answers should be specific to the Questions asked.
Draw neat, labeled diagrams wherever necessary.

Question Number		Marks
1.	A) What is OPEX budget?	(2)
	B) What are Job procedures?	(3)
	C) State the objectives of training?	(5)
	D) What are the steps to be followed in making duty roster?	(5)
2.	A) What is Sani bin?	(2)
	B) List the types of inventory?	(3)
	C) What is teamwork? Give the elements of good teamwork?	(5)
	D) Define budget preparation? Types of budget.	(5)
3.	A) Define outsourcing.	(2)
	B) Define horticulture.	(3)
	C) What are the benefits of training?	(5)
	D) What is cost control? What are the methods of controlling expenses in various areas in HK department?	(5)
4.	A) Define Division of work document?	(2)
	B) What are the steps involved in planning process.	(3)
	C) Prepare area inventory list and draw an ideal guestroom and guest bathroom area inventory list.	(5)
	D) Set the performance standard and what is the performance standard of cleaning of vanity unit?	(5)
5.	A) Write brief about work schedule and How Housemen schedules his/her work at Lobby?	(5)
	B) Discuss in detail the different method of training in housekeeping department.	(5)
