KLE ACADEMY OF HIGHER EDUCATION AND RESEARCH, BELAGAVI.
(Declared as Deemed-to-be-University u/s 3 of the UGC Act, 1956)

Accredited 'A' Grade by NAAC (2nd Cycle) **Placed in 'A' Category by MHRD (GoI)**

B.Sc. MLT / RADIOGRAPHY / ALLIED HEALTH SCIENCES
B.SC. IN RENAL DIALYSIS TECHNOLOGY
I SEMESTER – DECEMBER 2020

Time: 3 Hours **Max. Marks: 60**

HUMAN PHYSIOLOGY-I AND BIOCHEMISTRY

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 : HUMAN PHYSIOLOGY-I Q.P. CODE : 1902 [30 Marks]

Question Number **Marks**

LONG ESSAY QUESTIONS (Answer any ONE): **1 X 10 = 10**

1. Trace the course for auditory pathway. Add a note on hearing tests (8+2)
2. Classify leucocytes. Explain the structure, functions and variations of them. (2+5+3)

SHORT ESSAY QUESTIONS (Answer any TWO): **2 X 5 = 10**

3. Neuromuscular junction
4. Types of Immunity
5. Taste pathway

SHORT ANSWER QUESTIONS (All are compulsory): **5 X 2 = 10**

6. Classify body fluid compartments
7. Accommodation
8. Functions of Basal ganglia
9. Components of reflex arc
10. Mitochondria

SECTION B : BASICS OF BIOCHEMISTRY…Q.P. CODE : 1903 [30 Marks]

Question Number **Marks**

LONG ESSAY QUESTIONS (Answer any ONE): **1 X 10 = 10**

1. What are proteins? Classify proteins based on their composition, biological functions and nutritional requirement (2+8)
2. Define carbohydrates. Write in brief on biological importance of carbohydrates & add a note on polysaccharides (1+4+5)

SHORT ESSAY QUESTIONS (Answer any TWO): **2 X 5 = 10**

3. Write in detail about the principle and applications of pH meter (3+2)
4. What are lipoproteins? Name the lipoproteins & write their functions (1+2+2)
5. Explain the double helical structure of DNA with a diagram

SHORT ANSWER QUESTIONS (All are compulsory): **5 X 2 = 10**

6. Define the following: a) Normality b) Molarity c) Buffers
7. Mention the different types of RNA along with their functions
8. What are disaccharides? Give examples
9. Define primary and secondary standards
10. Mention the various uses of pipettes in laboratory

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B.SC. IN ANESTHESIA TECHNOLOGY-III SEMESTER DECEMBER 2020

Time: 3 Hours Max. Marks: 80

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. Discuss the principles of pulse –oximetry. Describe sites for application of pulse-oximeter probe
2. Describe instruments used for temperature monitoring
3. Define nebulizers, mention their types, uses and advantages

SHORT ESSAY QUESTIONS (Answer any SIX): **6 X 5 = 30**

4. Describe various types of Breathing circuits
5. Discuss the causes and prevention of fire in the operation theatre
6. Describe various intubation acids used in anaesthesia
7. Describe the testing of open and closed breathing circuits
8. Explain different sizes & colour coding of the cylinders
9. Explain safety features in Oxygen and Nitrous Oxide gas cylinders
10. Define E TCO_2. Mention its uses in anaesthesia practice

SHORT ANSWER QUESTIONS (All are compulsory): **10 X 3 = 30**

11. Testing for incompetent unidirectional valves in anaesthesia machine
12. Checking of tracheal tubes before anaesthesia
13. Endotracheal tube cuff pressure monitoring
14. Maintenance of anaesthesia equipment
15. Use of respirometers in anaesthesia
16. Estimation of endotracheal tube size & securing an endotracheal tube after intubation
17. Nasopharyngeal airway
18. Types of face masks used in children
19. Advantages of low flow anaesthesia
20. Pin-index safety system

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FIRST SEMESTER - M.Sc. NUTRITION AND DIETETICS DEGREE EXAMINATION – DECEMBER 2020

Time: 3 Hours Max. Marks: 80

RESEARCH METHODOLOGY & STATISTICS

Q.P. Code: 1953

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: **2 X 15 = 30**

1. Briefly explain cross sectional study.
2. Define Data. Enumerate types of data with example.

SHORT ESSAY QUESTIONS: **5 X 10 = 50**

3. Write a short note on how to conduct a focus group discussion.
4. What are the advantages of in-depth interview technique?
5. Explain Bar graph with example.
6. Enumerate types of hypothesis. Explain steps for testing hypothesis.
7. Write the key differences between qualitative and quantitative research.

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FIRST SEMESTER – BACHELOR OF PUBLIC HEALTH
BACHELOR OF PUBLIC HEALTH (HONS)
DEGREE EXAMINATION – DECEMBER 2020

Time: 3 Hours Max. Marks: 80

BASICS OF HEALTH DISEASES

Q.P. Code:1852

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. A study on anaemia was conducted in a city ABC with total population of 10000children and 500000adults between Jan 2019 to April 2019. The results show that 4000 children were anaemic and among them 1000 were on treatment since June 2018. Calculate the incidence and prevalence of anaemia among children

2. Explain the three levels of prevention with suitable example

SHORT ESSAY QUESTIONS (All are compulsory): **8 X 5 = 40**

3. Define and explain DALY
4. Discuss epidemiological triad with any disease as example
5. Differentiate between type 1 and type 2 error
6. Describe distribution of disease with suitable example
7. Enumerate the scope of public health
8. Discuss the term attributable risk with example
9. Explain indirect transmission of disease with appropriate example
10. Enumerate and define indications of health

SHORT ANSWER QUESTIONS (All are compulsory): **10 X 2 = 20**

11. Define droplet infection with suitable example
12. Define the term epidemic
13. Define HALE
14. Differentiate between public health and clinical medicine
15. Explain the term confounding factor
16. List any four indicators of health
17. Mention and **four** determinants of health, explain any one in detail
18. Write any **four** uses of epidemiology
19. Write any **four** determinants of diseases
20. Explain rate with suitable example

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Accredited 'A' Grade by NAAC (2nd Cycle) **Placed in 'A' Category by MHRD (GoI)**

THIRD SEMESTER - M.Sc. MEDICAL IN MICROBIOLOGY DEGREE EXAMINATION – DECEMBER 2020

Time: 3 Hours Max. Marks: 100

PAPER II: MICROBIOLOGY
(Immunology)

Q.P. Code: 1414

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: **2 X 20 = 40**

1. Enumerate antigen-antibody reactions in vitro. Define precipitation. Describe the principle and applications of precipitation (3+2+15)

2. Enumerate the cells involved in immune response. Describe the mechanism of cell mediated immunity (CMI) add a note on role of cytokines & MHC (3+9+8)

SHORT ESSAY QUESTIONS: **6 X 10 = 60**

3. Describe type IV hypersensitivity
4. What are superantigens and role of superantigens in immune response
5. Describe the structure and functions of Immunoglobulin A (Ig A)
6. Write the principle and types ELISA
7. Describe classical complement pathway and add a note complement deficiency disorders
8. Graft versus-host reaction. Describe the mechanism of graft rejection and add a note on Graft versus –Host reaction

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B.SC. IN ANESTHESIA TECHNOLOGY -VI SEMESTER DECEMBER 2020

Time: 3 Hours Max. Marks: 80

PROFESSIONAL TRAINING

Q.P. Code:1101

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 indications, contraindications and complications of epidural anaesthesia.
2. What is difficult intubation cart? Enumerate the contents of the cart

SHORT ESSAY QUESTIONS: **12 X 5 = 60**

3. Enumerate the various test done for quality check of gas cylinder
4. Discuss capnography
5. Describe shivering during spinal anesthesia
6. Describe venti mask
7. Describe the different types of Co_2 absorbents
8. Describe the advantages and disadvantages of supraglettic airway device
9. Describe the visual analog scale for assessment of pain
10. Enumerate the commonly used crystalloids during anaesthesia
11. Describe the anatomy of epidural space
12. Describe the role of premedication in anaesthesia
13. Enumerate the commonly used monitors during general anaesthesia
14. Describe the steps of basic life support

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Accredited 'A' Grade by NAAC (2nd Cycle) **Placed in 'A' Category by MHRD (GoI)**

B.SC. IN MEDICAL LABORATORY TECHNOLOGY-VI SEMESTER DECEMBER 2020

Time: 3 Hours Max. Marks: 90

PATHOLOGY, MICROBIOLOGY AND BIOCHEMISTRY

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 : PATHOLOGY Q.P. CODE : 1101/A [30 Marks]

Question Number **Marks**

LONG ESSAY QUESTIONS: **1 X 10 = 10**

1. Discuss the steps used in processing of a tissue in histopathology

SHORT ESSAY QUESTIONS: **1 X 5 = 05**

2. Principle & procedure for Hb estimation by cynameth hemoglobin method

SHORT ANSWER QUESTIONS: **5 X 3 = 15**

3. Procedure for reticulocyte count
4. List blood components and their uses
5. H & E stain
6. How do you collect blood sample for coagulation studies
7. Stages of ESR

SECTION B : MICROBIOLOGY Q.P. CODE : 1101/B [30 Marks]

Question Number **Marks**

LONG ESSAY QUESTIONS: **1 X 10 = 10**

1. Define sterilization. Describe the principle and applications of Autoclave (3+4+3)

SHORT ESSAY QUESTIONS: **1 X 5 = 05**

2. Enumerate the various concentration techniques for stool examination

SHORT ANSWER QUESTIONS: **5 X 3 = 15**

3. Define disinfection name **two** disinfectants used in the hospital
4. What is Antisepsis? Give **four** examples
5. Name **six** parasites seen in peripheral smear examination
6. What are the filters used for sterilization? Mention their application
7. What is cold sterilization? Mention its application

SECTION B : BIOCHEMEISTRY Q.P. CODE : 1101/C[30 Marks]

Question Number **Marks**

LONG ESSAY QUESTIONS: **1 X 10 = 10**

1. What is Levey Jennings chart? Explain the rules of rejection of run using Levey Jennings chart

SHORT ESSAY QUESTIONS: **1 X 5 = 5**

2. Enumerate the various Pre-analytical, analytical and post analytical variables that influence the laboratory results

SHORT ANSWER QUESTIONS: **5 X 3 = 15**

3. What are buffers? How are the buffer solutions prepared
4. Explain the procedure of collection and preservation of urinary specimen
5. Describe requisition forms and patient data registers
6. Explain the procedure for disposal of biological samples from a clinical laboratory
7. What are the various types of clinical laboratory records? Add a note on electronic records

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B.SC. IN PERFUSION TECHNOLOGY -VI SEMESTER
DECEMBER 2020

Time: 3 Hours Max. Marks: 80

PROFESSIONAL TRAINING

Q.P. Code:1101

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 a note on difference between VV & VA ECMO
2. What are the complications during cardiopulmonary bypass & how to manage them

SHORT ESSAY QUESTIONS: **12 X 5 = 60**

3. Types of venous cannulae
4. Parameters to be monitored during retrograde cardioplegia
5. Endoaortic cross clamp
6. Indications for VV ECMO
7. Indications for LVAD
8. Write a note on temperature based flow to be regulated on pump
9. Indications of filtration on pump
10. How will you manage hypoxia & hypercarbia on ECMO
11. Pre ECMO evaluation of patient
12. Complications of hypothermia
13. Pulse oxymeter
14. Heparin dose guidelines on ECMO

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B.SC. IN RADIOGRAPHY-VI SEMESTER
DECEMBER 2020

Time: 3 Hours Max. Marks: 80

PROFESSIONAL TRAINING

Q.P. Code:1101

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 secondary radiation and its effect on radiographic quality? As a radiographer what measures do you take for minimizing secondary radiation?

2. What is Contrast media? Enumerate various contrast material used in different modalities. How do you manage a case of adverse reaction of contrast

SHORT ESSAY QUESTIONS: **12 X 5 = 60**

3. DEXA
4. What is lead apron and mention how do you take care of it and procedure for it's quality check
5. Window length and width (CT)
6. Advantages of DR over CR
7. Patient preparation and techniques in MRCP
8. Larmor frequency
9. Positioning of various skull x-ray views
10. A mode and B mode describe and explain the difference
11. Pixel and voxel
12. Describe various ultrasound artifacts
13. Explain indication preparations and procedure of barium meal procedure
14. Heat effect and heel effect in x-ray production

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B.Sc. MLT / RADIOGRAPHY / ALLIED HEALTH SCIENCES
B.SC. IN RENAL DIALYSIS TECHNOLOGY
I SEMESTER – DECEMBER 2020

Time: 3 Hours **Max. Marks: 60**

HEMATOLOGY & CLINICAL PATHOLOGY AND MICROBIOLOGY-I

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 : PATHOLOGY- BASIC HAEMATOLOGY Q.P. CODE : 1904 [30 Marks]

Question Number **Marks**

LONG ESSAY QUESTIONS (Answer any ONE): **1 X 10 = 10**

1. Describe the procedure for collection of blood sample in hematology laboratory. Add a note of preservation of blood sample for various hematology investigations (6+4)
2. Describe the procedure for estimation of packed cell volume. Enumerate Red Cell Indices. Explain the method of calculation of red cell indices. Mention the normal values of PCV and Red Cell Indices (4+2+4)

SHORT ESSAY QUESTIONS (Answer any TWO): **2 X 5 = 10**

3. Describe reticulocyte. What is the clinical significance of reticulocyte count
4. Describe the principles & methods of blood grouping. List the various blood group systems
5. Describe the composition of wright stain. Describe preparation and procedure of staining peripheral smear using wright's stain

SHORT ANSWER QUESTIONS (All are compulsory): **5 X 2 = 10**

6. Enumerate the sites of bone marrow aspiration
7. Mention normal values of total WBC count and differential Leucocyte count in adults
8. Describe briefly about westergren pipette
9. Enlist the safety measures in hematology laboratory
10. Enumerate the functions of WBC's

SECTION B : MICROBIOLOGY-I…Q.P. CODE : 1905 [30 Marks]

Question Number **Marks**

LONG ESSAY QUESTIONS (Answer any ONE): **1 X 10 = 10**

1. Define the terms-sterilization, disinfection and Antisepsis. Classify the methods of sterilization. Describe steam sterilization (3+3+4)
2. Enumerate various microscopes used in microbiology. Describe the principle, limitations and applications of Light Microscope (2+2+2+4)

SHORT ESSAY QUESTIONS (Answer any TWO): **2 X 5 = 10**

3. Hot Air Oven
4. Koch's Postulates
5. Bacterial Growth Curve

SHORT ANSWER QUESTIONS (All are compulsory): **5 X 2 = 10**

6. Name any **three** articles sterilized by membrane Filtration
7. Name any **three** common antiseptics
8. Mention any **one** important contribution of: a) Alexander Fleming b) Leeuwenhoek c) Metchnikoff
9. Name any **three** qualities of good disinfectant
10. Transformation

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B.SC. IN ANESTHESIA TECHNOLOGY -III SEMESTER
DECEMBER 2020

Time: 3 Hours Max. Marks: 80

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. Epidural anaesthesia
2. Discuss monitoring during General anaesthesia
3. Distinguish between Depolarizing and non-depolarizing muscle relaxants

SHORT ESSAY QUESTIONS (Answer any SIX): **6 X 5 = 30**

4. Written and valid consent for anaesthesia and surgery
5. Importance of stopping smoking and anaesthesia
6. Enumerate special investigations in relation to pre-anaesthesia evaluation
7. Lignocaine hydrochloride
8. Reversal of anaesthesia
9. Immediate complications of spinal anaesthesia and treatment
10. Classification of Intravenous fluids

SHORT ANSWER QUESTIONS (All are compulsory): **10 X 3 = 30**

11. Bupivacaine Hydrochloride
12. Draw labeled diagram of Epidural space with its relations
13. Goals of oxygen therapy
14. Air ways-parts, features and methods of insertion
15. Physical properties of Ether
16. Classification of blood groups
17. Neostigmine
18. Enumerate emergency drugs on anaesthesia trolley with their indications
19. Pre-anaesthesia orders with its interpretation
20. Humidification-advantages

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B.SC. IN NEUROSCIENCE TECHNOLOGY -III SEMESTER
DECEMBER 2020

Time: 3 Hours Max. Marks: 60

BASIC OF NERVE CONDUCTIONS, ELECTROMYOGRAPHY AND EVOKED POTENTIALS

Q.P. Code:1926

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. Describe in detail principles of motor nerve conductions
2. Describe in detail how to perform auditory evoked potentials

SHORT ESSAY QUESTIONS: **5 X 5 = 25**

3. Repetitive nerve stimulation
4. Motor unit potential
5. Procedure for recording H-reflex
6. Electrodes used for nerve conduction study
7. Sensory nerve conduction of sural nerve

SHORT ANSWER QUESTIONS: **5 X 3 = 15**

8. Heart rate variability with deep breathing
9. Interference pattern in electromyography
10. P 100 in visual evoked potentials
11. Normal spontaneous activity in electromyography
12. Averaging in evoked potentials

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FIRST SEMESTER - M.Sc. NUTRITION AND DIETETICS DEGREE EXAMINATION – DECEMBER 2020

Time: 3 Hours Max. Marks: 80

ADVANCED HUMAN NUTRITION

Q.P. Code: 1954

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: **2 X 15 = 30**

1. What are nutritional requirements and dietary modifications required in planning diets for the elderly? Explain with a suitable diet plan.
2. What are the nutritional and food requirements of adults?

SHORT ESSAY QUESTIONS: **5 X 10 = 50**

3. Maternal malnutrition.
4. Nutrition related problems of Pre-schoolers.
5. Food requirements of school children age 7-12 years and their diet related problems.
6. Write briefly about physiological changes of expectant mothers and food requirements.
7. Artificial feeding.

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FIRST SEMESTER – BACHELOR OF PUBLIC HEALTH
BACHELOR OF PUBLIC HEALTH (HONS)
DEGREE EXAMINATION – DECEMBER 2020

Time: 3 Hours Max. Marks: 80

FUNDAMENTALS OF DEMOGRAPHY, SOCIOLOGY AND BEHAVIORAL

Q.P. Code:1853

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. Explain demographic cycle with example
2. Explain diffusion of innovation theory with suitable example

SHORT ESSAY QUESTIONS: (All are compulsory): **8 X 5 = 40**

3. Compare and contrast population pyramid of Japan with India. Explain differentials
4. Explain social control with example
5. Define fertility and explain how its measured
6. Explain the importance of national family health surveys
7. Sex ratio is declining. If yes/no justify
8. Describe community needs assessment approach, give example for the same
9. Discuss the components and characteristics of population structure
10. Define family. Discuss the functions of family

SHORT ANSWER QUESTIONS (All are compulsory): **10 X 2 = 20**

11. What is fecundity?
12. Enumerate the sources of population data
13. Define social defence
14. Define motivation
15. What is dependency ratio?
16. Mention the importance of age in population studies
17. Define census
18. Explain social stress as determinant of health
19. List various types of population pyramids
20. Define community

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FIRST SEMESTER - M.Sc. MEDICAL DEGREE EXAMINATION – DECEMBER 2020

Time: 3 Hours Max. Marks: 80

PAPER III: BIOCHEMISTRY

Q.P. Code: 1403

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: **2 X 10 = 20**

1. Describe the structure, composition and properties of cell membrane. Add a note on active transport across cell membrane (2+2+2+4)
2. What are enzymes? Classify enzymes with suitable examples (2+5+3)

SHORT ESSAY QUESTIONS (All are compulsory): **9 X 5 = 45**

3. Explain the structure function relationship in proteins with suitable examples
4. Enumerate the functions and deficiency manifestations of vitamin B12
5. What are Heteropolysaccharides? Discuss the composition and functions of Heteropolysaccharides
6. Classify phospholipids. Add a note on their functions
7. What is subcellular fractionation? Explain the procedure to separate and identify subcellular organelles with the help of marker enzymes
8. What are buffers? Explain the derivation of Henderson-Hasselbalch equation and its applications
9. Classify aminoacids based on their nutritional requirements and metabolic fate
10. Write the functions and deficiency of vitamin K
11. Define nucleotides. Discuss the structure and functions of nucleotides

SHORT ESSAY QUESTIONS (All are compulsory): **5 X 3 = 15**

12. Essential fatty acids
13. Non reducing disaccharides
14. Donnan membrane equilibrium
15. Biologically important peptides
16. Structure and functions of tRNA

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THIRD SEMESTER - MASTER OF HOSPITAL ADMINISTRATION DEGREE EXAMINATION – DECEMBER 2020

Time: 3 Hours Max. Marks: 80

PAPER – III:
HOSPITAL FINANCE, COST AND MANAGEMENT ACCOUNTING

Q.P. Code: 1709-A

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

Question Number **Marks**

LONG ESSAY QUESTIONS (All are compulsory): **4 X 15 = 60**

1. What are the functions of Accounting? Explain the advantages of accounting? Write the limitations of accounting. (5+5+5)
2. Define the term Financial statement. What are the features of Financial statements? What are the reasons for the interpretation of Financial statement? (5+5+5)
3. Distinguish between Cost Accounting and Financial Accounting. What are the basis of allocation of overheads in costing? What are the basis of accumulation of cost? (5+5+5)
4. Define Management Accounting. What are features of Management Accounting? Distinguish between Management Accounting and Financial Accounting. (5+5+5)

SHORT ESSAY QUESTIONS (Answer any TWO): **2 X 10 = 20**

5. Capital Restructuring.
6. Responsible Accounting.
7. Budget and Budgeting.
8. Internal control and Internal Auditing.

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FIRST SEMESTER – BACHELOR OF PUBLIC HEALTH
BACHELOR OF PUBLIC HEALTH (HONS)
DEGREE EXAMINATION – DECEMBER 2020

Time: 3 Hours Max. Marks: 80

HEALTH CARE DELIVERY SYSTEM

Q.P. Code: 1854

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

Question Number **Marks**

LONG ESSAY QUESTIONS: (All are compulsory): **2 X 10 = 20**

1. List the Millennium development Goals. Discuss India's achievement of MDG's with example
2. Discuss the elements of primary health care

SHORT ESSAY QUESTIONS: (All are compulsory): **8 X 5 = 40**

3. Discuss the evolution of public health in India
4. Comment on need for comprehensive healthcare in India
5. Discuss the functions of primary health centre in India
6. Explain the functions of ASHA workers
7. Discuss the staffing pattern for community health care
8. List any **two** sustainable development goals and explain its importance
9. Discuss the role of Panchayat Raj institutions in health care delivery system
10. Discuss the contributions of UNICEF in improving public health in India

SHORT ANSWER QUESTIONS (All are compulsory): **10 X 2 = 20**

11. Give **two** points on importance of sub-center in health care delivery in India
12. Five **four** functions of red cross
13. List any **four** principles of primary health care
14. Define Panchayat Raj
15. List the functions of WHO
16. List the components of three tier systems of healthcare in India
17. Enumerate **four** functions of a PHC doctor
18. Mention any **two** key functions of health worker (female)
19. Give **four** examples of voluntary health agencies in India
20. Describe any **four** benefits of EST

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KLE ACADEMY OF HIGHER EDUCATION AND RESEARCH, BELAGAVI.
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Accredited 'A' Grade by NAAC (2nd Cycle) **Placed in 'A' Category by MHRD (GoI)**

B.SC. MLT/ RADIOGRAPHY / ALLIED HEALTH SCIENCES
B.SC. IN RENAL DIALYSIS TECHNOLOGY
I SEMESTER – DECEMBER 2020

Time: 3 Hours Max. Marks: 60

HUMAN ANATOMY

Q.P. Code:1901

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 right lung under following headings:
   a) Impressions of the mediastinal surface.
   b) Broncho pulmonary segments. (5+5)

2. Describe heart under following headings (4+2+4)
   a) External features
   b) Coverings
   c) Inferior of right ventricle

3. Describe Larynx under following headings:
   a) Extent & relations
   b) Intrinsic muscles
   c) Nerve supply
   d) Applied anatomy

SHORT ESSAY QUESTIONS (Answer any FIVE): **5 X 5= 25**

4. Types of bones
5. Pericardium
6. Histology of lung
7. Classify fibrous joints
8. Blood supply of heart
9. Pleura
10. Functional areas of cerebral hemisphere

SHORT ANSWER QUESTIONS(All are compulsory): **5 X 3 = 15**

11. Write the features of typical synovial joint
12. Name the meninges covering cerebrum
13. Name the lymphoid organs
14. Name the paranasal air sinuses
15. Define the terms pronation & supination

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B.SC. IN ANESTHESIA TECHNOLOGY/PERFUSION TECHNOLOGY/CARDIAC CARE TECHNOLOGY -III SEMESTER DECEMBER 2020

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. Enumerate merits and demerits of various routes of drug administration with suitable examples?
2. Classify bronchodilators. Explain the mechanism of action, therapeutic uses and adverse effects of salbutamol? (4+1+3+2)
3. Classify antithyroid drugs. Explain the mechanism of action, therapeutic uses& adverse effects of Radioactive Iodine? (3+1+3+3)

SHORT ESSAY QUESTIONS (Answer any SIX): **6 X 5 = 30**

4. Therapeutic uses, mechanism of action and adverse effects of D-tubocurarine
5. Therapeutic uses, mechanism of action and adverse effects of Morphine
6. Therapeutic uses, mechanism of action and adverse effects of Atropine
7. Factors affecting drug absorption
8. Drug dependence
9. Therapeutic uses, mechanism of action and adverse effects of Insulin
10. Therapeutic uses, mechanism of action and adverse effects of Propranolol

SHORT ANSWER QUESTIONS (All are compulsory): **10 X 3 = 30**

11. Name any three fixed dose combination and their uses
12. Name any three teratogenic drugs and its effect
13. Enumerate three therapeutic uses of Adrenaline
14. Drug synergism
15. Enumerate tree therapeutic uses and adverse effects of Corticosteroids
16. Bioavailability
17. Treatment of organophosphorus poisoning
18. Tachphylaxis
19. Enumerate three adverse effects of Aspirin
20. Enumerate three therapeutic uses of Pheneramine maleate

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FIRSTSEMESTER -M.Sc. NUTRITION AND DIETETICS DEGREE EXAMINATION – DECEMBER 2020

Time: 3 Hours **Max. Marks: 80**

HUMAN PHYSIOLOGY AND NUTRITION SCIENCE

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 : HUMAN PHYSIOLOGY Q.P. CODE : 1951 [35 Marks]

Question Number **Marks**

LONG ESSAY QUESTIONS: **1 X 15 = 15**

1. Discuss how Blood sugar levels are regulated by the Pancreatic-Hormones: Add a note on Diabetes-mellitus. (10+5)

SHORT ESSAY QUESTIONS: **2 X 10 = 20**

2. Draw a neat labeled diagram of normal electrocardiogram and discuss its components. Add a note on its uses. (1+6+3)
3. Define Menstrual cycle. Discuss the hormonal regulation of its various stages. Add a note on Menopause. (1+7+2)

SECTION B :NUTRITION SCIENCE…Q.P. CODE : 1952 [45 Marks]

Question Number **Marks**

LONG ESSAY QUESTIONS: **1 X 15 = 15**

1. Explain the structure and properties of Proteins. Enumerate the importance of proteins in the body.

SHORT ESSAY QUESTIONS: **6 X 5 = 30**

2. Electrolyte composition of body fluids
3. Nutritional importance of lipids and the dietary sources of different lipids
4. Role of dietary fibers in health
5. Functions and deficiency of water soluble Vitamins.
6. Explain the functions and deficiency of Calcium and Iron
7. Define dietary reference intake and explain the factors affecting RDA.

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THIRDSEMESTER -M.Sc. MEDICAL IN MICROBIOLOGY DEGREE EXAMINATION – DECEMBER 2020

Time: 3 Hours Max. Marks: 100

PAPER I: MICROBIOLOGY
(General Microbiology))

Q.P. Code: 1413

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: **2 X 20 = 40**

1. Define sterilization. Classify methods of sterilization. Discuss their application in medical practice (2+3+15)

2. Enumerate methods of gene transfer. Describe in detail how bacteria acquire resistance to antibiotics with examples. Add a note on genetic engineering (2+12+6)

SHORT ESSAY QUESTIONS(All are compulsory): **6 X 10 = 60**

3. Bacterial spore
4. Electron microscope-principle &uses
5. Bacterial typing methods
6. Describe various methods of antibiotic sensitivity testing
7. Anaerobic culture methods
8. Robert Koch

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SECOND SEMESTER – BACHELOR OF PUBLIC HEALTH
BACHELOR OF PUBLIC HEALTH (HONS)
DEGREE EXAMINATION – DECEMBER 2020

Time: 3 Hours Max. Marks: 80

HUMAN BIOLOGY-II PATHOLOGY & MICROBIOLOGY

Q.P. Code:1565

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 & classify shock. Describe the stages and effects of shock
2. Define & classify Inflammation. Describe the features of acute inflammation

SHORT ESSAY QUESTIONS: **8 X 5= 40**

3. Define & classify Neoplasia. Give examples
4. What is hypersensitivity reaction? Describe the types with examples
5. Wound healing-types and factors affecting wound healing
6. Define antibody. Discuss the various types of antibodies
7. Definition and causes of renal failure
8. Effects of Ionizing radiation
9. Vit. D deficiency
10. Pathogenesis of Dengue fever

SHORT ANSWER QUESTIONS (All are compulsory): **10 X 2 = 20**

11. Name effects of thrombus
12. Name six causes of infertility
13. Name the preventive measures of chronic obstructive pulmonary disease
14. Microscopy in tuberculosis
15. Name the causes of hypertension
16. Name any four parasitic disease of public health importance
17. Name any four diseases caused due to air pollution
18. Name four causes of Folic acid deficiency
19. Define & classify Immunity
20. Name the types of Edema give examples

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FIRST SEMESTER – BACHELOR OF PUBLIC HEALTH
BACHELOR OF PUBLIC HEALTH (HONS)
DEGREE EXAMINATION – DECEMBER 2020

Time: 3 Hours Max. Marks: 80

HUMAN BIOLOGY-I
(Anatomy, Physiology & Biochemistry)

Q.P. Code:1851

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. Draw a neat labelled diagram of brain. Discuss in detail the functions of brain
2. List all the main and accessory organs of GIT. Discuss about salivary glands and functions of saliva

SHORT ESSAY QUESTIONS (All are compulsory): **8 X 5 = 40**

3. Define fatty acids. Give the classifications of fatty acids
4. Classify lipids. Give example of each class along with its functions
5. Define carbohydrates. Write about glucose absorption in the body
6. Classify joints with examples
7. Write in brief about types of cells
8. Briefly describe the gross anatomy of the kidney
9. Enumerate the organs of female reproductive system and write in detail about the uterus
10. Draw a neat a labelled diagram of the conducting system of the heart

SHORT ANSWER QUESTIONS (All are compulsory): **10 X 2 = 20**

11. Classify proteins based on their shapes
12. Write any four essential amino acids
13. Write the types of muscles and give their functions
14. Write difference between red and yellow bone marrow
15. What is immunity?
16. What is puberty?
17. Describe the pharynx with a labelled diagram
18. Draw a labeled diagram describing the anatomy of lung
19. Define dyspnea, apnea and hypoxia
20. ABO blood group system

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