



ANA - Paper - I

- 1) Multiple choice questions **20X1=20M**
 General anatomy- **3 M**
 General Histology- **3M**
 Upper limb— **5 M**
 Head and neck- **5m**
 Neuroanatomy- **4 M**
- 2) Describe shoulder joint under following **(1+3+4+3+4)**
- Type of joint
 - Articular surfaces
 - Ligaments
 - Rotator cuff
 - Movements
- 3) Describe the thyroid gland under **(4+4+4+3)**
- External features
 - Relations
 - Blood supply
 - Applied aspects

Short essays:

- Microscopic structure of Bone
- Fibrous joints
- Supinators
- Anatomical basis of carpal tunnel syndrome
- Corpus callosum
- Blood supply and nerve supply of scalp
- Draw a neat labelled diagram of Spinal cord with tracts
- A female patient of age 54 yrs came to opd complaining profound sweating on the face while eating on history taking had a surgery on the parotid gland recently. Basing on this answer the following **(1+2+2)**
 - Name the clinical condition
 - What is its anatomical basis
 - Secretomotor pathway of parotid gland
- Inferior horn of lateral ventricle

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PRONATORS



ANA - Paper-II

1) MULTIPLE CHOICE QUESTIONS 20X 1= 20M

Systemic histology- **2M**

Systemic embryology-**2M**

Genetics. **-2M**

Lower limb— **4M**

Abomen and pelvis- **6M**

Thorax— **4M**

2) Describe in detail about stomach under 2+4+4+2+3

A. Parts

B. Relations

C. Blood supply

D. Nerve supply

E. Lymphatic drainage

3) Describe knee joint under 1+3+4+4+3

a) Type

b) Articulating surface

c) Ligaments

d) Movements

e) Locking and unlocking

Short essays

4) Microscopic structure of Testes

5) Development of pancreas

6) Karyotyping

7) Medial longitudinal arch of foot

8) A male patient aged 50 yrs came to sugicalopd with engorgemt of veins on the legsand ulcerating wound. Trendelenburgs test was positive on examination. Based on this answer the following 2+1+2

a. What is the clinical condition

b. What is Trendelenburg's test

c. Name the perforators.

9) supports of Uterus

10) Describe Rt . Atrium



- 11)** A male patient of age 25 yrs came to tgeopd with complaints of fever, vomitings, pain abdomen. On examination gaurding in rt . Iliac fossa.and psoas test positive

Based on this clinical scenario answer the following

- a.** What is the stuctureinvolved?
 - b.** What is MC Burneyspoot?
 - c.** Blood supply
- 12.** Sinuses of pericardium
- 13.**inguinal hernia



Distribution of marks – Anatomy

Paper – I

Blueprint for the anatomy theory examinations

TOPIC	Arteries	Veins	Nerves	Muscles	Space	Bones	Joints	Connective tissue	Organs	Marks	MCQ's
General anatomy										5	3
General histology										5	3
General embryology										5	0
Upper limb										25	5
Head and neck										25	5
Neuro anatomy										15	4
TOTAL										80 Marks	20Marks



Paper 2

Topic	Arteries	Veins	Nerves	Muscles	Space	Bones	Joints	Connectiv e tissue	Organs	Marks	MCCQ's
Systemic Histology										5	2
Systemic Embryology										5	2
Genetics										5	2
Lower limb										25	4
Abdomen and Pelvis										25	6
Thorax										15	4
TOTAL										80 marks	20 Marks

**FIRST PHASE MBBS EXAMINATION
PHYSIOLOGY PAPER I**

DATE:

TIME: 3 HOURS

MAX MARKS: 100

Answer all questions

Draw diagrams whenever necessary

SECTION I

MULTIPLE CHOICE QUESTIONS (20 x 1 = 20 marks)

SECTION II

ESSAY QUESTIONS - 15 MARKS EACH (2 x 15 = 30 marks)

1. What is Hypoxia? Classify it. Explain the mechanism and add a note on oxygen therapy. (2+2+8+3=15)
2. Define cardiac output. Explain briefly about regulation of cardiac output. Write the factors affecting cardiac output and methods of estimation. (2+7+3+3)

SHORT QUESTIONS - 5 MARKS EACH (10 x 5 = 50 marks)

3. Juxta glomerular apparatus
4. Deglutition
5. Describe mechanism of coagulation
6. Homeostasis
7. Micturition reflex
8. Dysbarism
9. A 35-year-old business executive complaints of pain in epigastric region which is relieved by taking food. His basal secretion of HCL has 6 meq/L during augmented histamine test was 35 meq/L
 - a. What is your likely diagnosis?
 - b. What is the normal value of Augmented Histamine test?
 - c. Mention other reasons that can be used to provoke gastric secretion
 - d. Why pain is relieved after food
 - e. What will be the effect of vagotomy in this patient?
10. Short term regulation of blood pressure
11. Cell mediated immunity
12. A 25-year-old female complaints of dizziness, fatigue, difficulty in concentration and sometimes with palpitation. On examination patient showed pallor of skin, mucous membrane, spooning of nails. Hematological investigations revealed Hb – 6 gms %, RBC count – 3 millions / cu.mm, MCHC: 28 gms /100ml /c.mm of blood, MCV: 60 cubic microns. a) What is the probable diagnosis? b) What is the probable cause? c) What is the treatment?

**FIRST PHASE MBBS EXAMINATION
PHYSIOLOGY PAPER II**

DATE:

TIME: 3 HOURS

Answer all questions

MAX MARKS: 100

Draw diagrams whenever necessary

I. MULTIPLE CHOICE QUESTIONS (20 x 1 = 20 marks)

SECTION II

II. STRUCTURED ESSAY QUESTIONS - 15 MARKS EACH (2 x 15 = 30 marks)

1. Describe the origin, course, termination of corticospinal tract with a diagram. Explain its functions (2+5+2+4+2 =15 Marks)
2. Describe the synthesis and secretion of thyroxine. Discuss the mechanism of actions and regulation of secretion of thyroxine. List out the actions of thyroxine. Add a note on Grave's disease.(2+6+2+2+2+1)

III. SHORT ESSAY QUESTIONS - 5 MARKS EACH (10 x 5 = 50 marks)

3. Connections and functions of basal ganglia
4. Visual pathway and its lesions
5. Menstrual cycle
6. Hyperthermia
7. Organ of Corti
8. Contraceptives
9. A 40-year-old male came with a drunken gait, getting shakes in hands while doing actions. On examination, intentional tremors seen and coordination is lost during both closed/opened eyes.
 - a. What is your provisional diagnosis?
 - b. What is the dysfunction due to?
 - c. what are all the tests we can do to confirm the diagnosis.
10. Neuromuscular junction
11. Brown Sequard syndrome
12. A female patient 40 years age complaints of drooping of eyelid, general weakness and fatigue that aggravates during evening but improves after rest.
 - a. What is your provisional diagnosis?
 - b. What is the dysfunction due to?
 - c. Give the physiological basis of use of drug in this condition

Weightage of marks(approximate) in biochemistry university theory examinations

Paper – I

TOPIC	APPROXIMATE MARKS
Enzymes	10
Biological Oxidation	5
Digestion and absorption	5
Detoxification	5
Carbohydrate chemistry and metabolism	15
Vitamins	15
Free Radicals and Antioxidants	5
Nutrition	10
Lipid chemistry and metabolism	15
Heme metabolism	10
Organ Function tests	5
Integration of metabolism and Homeostasis	5

Paper-II

TOPIC	APPROXIMATE MARKS
Protein chemistry and metabolism	15
Mineral metabolism	15
Nucleic acid chemistry and metabolism	10
Molecular Biology	15
Hormones	5
Extracellular matrix	5
Plasma proteins	5
Immunology	5
Cell and organelles, Cell membrane, Transport across cell membranes	5
Cancer	5
Acid-Base balance and water- Electrolyte balance	15

Biochemistry Model Paper I

Max Marks: 100

Time: 3hrs

I. MCQs = 1x20=20 M

II. Structured Essay Questions: 2x15= 30 M

1. Write the sources & RDA of Vitamin D. Describe the synthesis of active form of Vitamin D. Explain the biochemical functions and deficiency manifestations of Vitamin D. Add a note on hypervitaminosis D. (1+1+4+4+3+2)

2. Name Lipoproteins and mention their functions. Explain the LDL metabolism. What is normal serum cholesterol level? What are the derivatives of cholesterol and add a note on atherosclerosis. (2+2+4+1+3+3)

III. Short Essay Questions: 10x5=50 M

3. A 5-year-old boy was admitted to a medical ward in a comatose condition. The boy maintained good health till very recently. His father said that the boy complained of thirst and increased urination. He lost weight and became very thin. His breath had fruity odor. His lab report as follows

Blood glucose : 800mg/dL, Blood urea: 40mg/dl, Serum creatinine : 1.8mg/dl

Benedicts Test : ++++ , Rothera's test : ++++

- a) What is the probable diagnosis in the above case
 - b) What are the points in favour of such a diagnosis?
 - c) What is the reason for the fruity odour
 - d) Name two non-sugar compounds that give a positive Benedicts test
4. Enumerate the types of Heteropolysaccharides and write their functions
 5. Explain Competitive Inhibition and give 2 examples
 6. Describe the types of Haemoglobinopathies
 7. Describe Chemiosmotic theory and give two examples for uncouplers
 8. Describe the types of Protein Energy Malnutrition
 9. Describe the steps in Heme synthesis
 10. Describe the Liver Function Tests
 11. A 4-year-old boy came to the hospital and his serum ALP levels are high.
 - a) Enumerate physiological and pathological conditions for raised ALP in this age group.
 - b) List the Isoenzymes of ALP.
 - c) Reference range of serum ALP
 12. Metabolic adaptation during starvation

Biochemistry Paper II

Max Marks: 100

Time: 3hrs

I. MCQs =1x20=20M

II. Structured Essay Questions:2x15=30M

- 1) Write the sources & RDA of Calcium. Describe the functions of calcium. Explain the regulation of serum calcium level. What is normal serum calcium level and add a note on deficiency manifestations. (1+1+5+5+1+2)
- 2) What is the normal blood pH. Describe the buffer mechanisms regulating blood pH. Explain about metabolic acidosis and add a note on Anion Gap. (1+8+4+2)

III. Short Essay Questions: 10x5=50 M

- 3) A three-month-old child was brought to the hospital by the parent with the complaint of the child's diapers becoming black.
 - a) Which metabolic pathway is affected?
 - b) what is the biochemical cause behind the black diapers.
 - c) This analyte can give a false positive with which urine test?
 - d) What complication can be expected in middle age in this child due to this compound?
- 4) A 50-year-old alcoholic man came with the complaints of excruciating pain in his great toe. He gave a history of taking a heavy non-vegetarian meal and alcohol the night before. What is your diagnosis. Enumerate the primary and secondary causes of the disease. What is the drug of choice for this condition?
- 5) Define and describe the different types of mutations
- 6) Describe the mechanism of action of Group I hormones
- 7) Describe the structure of collagen
- 8) Discuss the steps of PCR and its applications
- 9) Describe the types of acquired immunity and their functions
- 10) Enumerate the tumor markers and their role in cancer diagnosis
- 11) Describe the synthesis of melanin
- 12) Explain the transport mechanisms across the cell membrane