

(2)

UNIT – II

- V. Outline the functional division of the cerebellum. Describe the connections and functions of spinocerebellum. (3+3+4)
- VI. Explain with diagram/flowcharts wherever required :-
- Milk let down or ejection reflex
 - Neuro-muscular transmission
 - Refractive errors of the eye
 - Heat loss mechanisms in the body
 - Functional connections of the Basal Ganglia for motor control (5x4)
- VII. Give reasons why:-
- Lactating mothers do not usually require contraception
 - Prolonged bed rest leads to bone loss and negative calcium balance
 - Ingestion of large amount of iodide results in reduction in thyroid hormone levels
 - Risks and benefits of should be analyzed before involving humans in clinical trials
 - Marathon runners have more number of red muscle fibres (5x2)
- VIII. A young athlete developed cramps and fell down while running. He was otherwise perfectly fine. He had reached the stadium just in time to put on his sports shoes and participated in multiple sporting events before he developed cramps. The weather was hot with 80% relative humidity, and he had not had enough water. After being given salt and glucose with water by his coach and allowed to rest, he recovered after sometime.
- Outline the pathophysiology of muscle cramps in hot and humid weather.
 - Briefly explain the reason for giving him salt along with glucose with water. (4,6)

x-x-x

2120
M.B.B.S. Prof. First
Paper – B: Physiology

Time allowed: 3 Hours

Max. Marks: 100

NOTE: Attempt all questions. Use separate answer sheet for each Unit. Draw well labeled diagrams wherever required.

x-x-x

UNIT – I

- I. Write the composition of gastric juice and enumerate one important function of each constituent. Briefly describe the regulation of acid secretion. (6+4)
- II. Write short notes on:-
 - a) Physiological basis of vaccination
 - b) Production of diluted urine by kidney
 - c) Pathophysiology and clinical features of Pulmonary edema
 - d) Conducting tissues of the heart (4x5)
- III. Explain why?
 - a) Cyanosis is not seen in patients with severe anemia
 - b) Deficiency of Vitamin B₁₂ causes pernicious anemia
 - c) Rapid antigen testing for Covid-19 is advantageous
 - d) One should not drink coffee or tea immediately after a meal
 - e) Chronic asthma patients develop a barrel chest (5x2)
- IV.
 - a) Briefly explain the term "Informed Consent". (5)
 - b) Shanti, 24 years old teacher, found that she was tiring very easily after a few hours of work at school. Since she was normally a very active and energetic person, she decided to see a doctor. After examining her and performing a quick haemoglobin estimation that revealed a value of 9.0 g/dL, the doctor arrived at a provisional diagnosis of anaemia.
 - i) The most likely type of anaemia Shanti is probably suffering from is?
 - ii) Describe the most likely peripheral blood smear findings in this case.
 - iii) List the common signs and symptoms of Anaemia. (1,1,3)

P.T.O.

(2)

VI. Write short notes on:-

- a) Vitamin A deficiency
- b) Hypothyroidism
- c) Niacin and Biotin as coenzymes

(3x2)

x-x-x

2120

M.B.B.S. Prof. First
Paper – A: Physiology

Time allowed: 3 Hours

Max. Marks: 100

NOTE: Attempt all questions. Use separate answer sheet for each Unit. Draw well labeled diagrams wherever required.

x-x-x

UNIT – I

- I. Define active transport and with the help of suitable examples, describe the active transport mechanisms for substances across the cell membrane. (2+4+4)
- II. Write short notes on:-
 - a) Myasthenia gravis and the physiological basis of its treatment
 - b) Role of female hormones in contraception
 - c) Role of aqueous humor in the eye
 - d) EEG changes during sleep (4x5)
- III. Explain why?
 - a) Normal saline (0.9% NaCl) is preferred over 5% Dextrose in treating volume depletion
 - b) Botulinum toxin is used for therapeutic purposes
 - c) Tremors occur in Parkinson's disease
 - d) Yoga and meditation are helpful for stress management
 - e) Consumption of alcohol when exposed to extremely cold environment is harmful (5x2)
- IV.
 - a) Briefly explain the difference in Informed Consent process for adults and children. (5)
 - b) A 63-year-old man is brought to the emergency with the complaints of difficulty in speaking. He was perfectly fine till about an hour ago when he tried to explain to his wife that something was wrong, but he was unable to speak clearly. He has been on medication to control hypertension and has type 2 diabetes that is being managed with diet and exercise.
 - i) The most likely diagnosis in the case of Mr. Singh is?
 - ii) Briefly outline the pathophysiology of this condition.
 - iii) Name the other areas of the brain responsible for speech with their locations. (1,2,2)

P.T.O.

(2)

UNIT – II

- V. a) What is normal pH of blood?
 b) Explain three mechanisms by which acid base balance is maintained in our body with a suitable diagram. Name 4 disorders with two examples of each. (1+6+3)
 c) Derangement of acid base balance.
- VI. Answer the following briefly:-
 a) Describe Tumour marker
 b) Active immunisation with example
 c) Mucosal block theory
 d) Factors regulating hormone action
 e) Wobble hypothesis for codon- anticodon interaction (5x4)
- VII. Justify:-
 a) Gouty arthritis affects the small peripheral joint
 b) Secondary response is exaggerated than the primary response on exposure to foreign antigen
 c) Steatorrhea is observed in Obstructive Jaundice
 d) 5-Fluorouracil is used as an anticancer agent
 e) Microcytic hypochromic anaemia is seen in patient with achlorhydria (5x2)
- VIII. a) A 12-year-old boy with a 2-month history of reduced visual acuity was referred to a corneal specialist by an ophthalmologist. On examination, the patient was short, extremely underweight and pale, with mild proximal muscle weakness. Visual examination showed only light perception in the right eye and 1/60 in the left eye. Slit lamp examination revealed bilateral corneal and conjunctival keratinisation.
 i) Name the nutrient whose deficiency can cause this disorder?
 ii) Name the different forms of this nutrient?
 iii) What is the most common symptom that these patients mention?
 iv) How does replenishment with the nutrient revert back the most common symptom? (1+2+1+1)
- b) A 11 year old female presented to ED with "hand spasms" and abdominal pain. Biochemical reports revealed:
- | | |
|----------------------------|-------------------------------|
| Calcium 5.6 (8-11 mg/dL) | iCa 0.72 (1.12 - 1.32 mmol/L) |
| Mg++ 1.5 (1.7 - 2.4 mg/dL) | Phos 8.3 (3.4 - 5.4 mg/dL) |
- Reference intervals are in brackets*
- i) Comment on the condition and the probable cause.
 ii) What is the effect of alteration in pH on the blood level of the element?
 iii) Name the biologically active form of this element and its normal range. (2+1+2)

Time allowed: 3 Hours

NOTE: Attempt all questions. Use separate answer sheet for each Unit. Illustrate your answers with suitable diagrams.

Max. Marks: 50

x-x-x

UNIT – I

I. Explain:-

- a) Process of DNA replication
- b) Metabolic acidosis and various compensatory mechanisms.
- c) Liver function tests

(3,3,4)

II. Describe briefly:-

- a) PCR technology
- b) Post transcriptional modifications
- c) Mutations

(3x3)

III. Write Short notes on:-

- a) Biochemical role of Zinc and Selenium
- b) Diagnostic Radio isotopes
- c) Iron absorption

(3x2)

UNIT – II

IV. Describe:-

- a) Lac Operon model in regulation of gene expression
- b) Role of Vitamin D in calcium and phosphorus homeostasis
- c) Mechanisms of action of various hormones

(3,3,4)

V. a) Inhibitors of translation.

b) Oncogenes.

c) Classify immunoglobulins. What are the functions of IgG & IgM.

(3x3)

P.T.O.

(2)

UNIT - II

V. Answer the following:-

- Outline the pathway of Cholesterol synthesis.
- Explain the various mechanisms of regulation of cholesterol synthesis in the body.
- Enumerate the important products synthesized from cholesterol in the body.
- What is Atherosclerosis?

(3,3,2,2)

VI. Answer the following briefly:-

- Describe Active transport across biological membranes and its types.
- Compare and contrast tertiary and quaternary structure of proteins.
- Describe the factors effecting enzyme activity. Discuss in detail the effect of substrate concentration on rate of enzyme mediated reaction.
- Discuss the various reactions for detoxification of xenobiotics.
- Explain the synthesis and biochemical functions of Nitric oxide.

(5x4)

VII. Justify/give reason for the following:-

- Elevated levels of sorbitol cause long term complications in uncontrolled diabetes mellitus.
- Glutamine is called the storehouse of ammonia.
- 2-3 BPG levels are increased in high altitude.
- Patients of congenital erythropoietic porphyria excrete red colored urine.
- Long term alcohol consumption causes fatty liver.

(5x2)

VIII. Answer the following briefly:-

- A 62-year-old man is admitted to hospital with chest pain. The pain is in the center of the chest and has lasted for 3h by the time of his arrival in the emergency department. The chest pain radiated to the jaw and left shoulder. He was sweaty and in pain but had no abnormalities in the cardiovascular or respiratory systems. His blood pressure was 138/82 mmHg and his pulse rate was 110/min and regular.
 - What is the likely diagnosis?
 - What tests can be done to confirm the diagnosis?
 - Name an enzyme preparation that is used therapeutically in this condition. What is the rationale for its use?

(1,2,2)

- A 19-year-old soldier was brought to the infirmary after passing out during basic training. He had repeatedly complained of severe weakness, dizziness, and sleepiness during the preceding 4 weeks of boot camp. Upon questioning, he reported unquenchable thirst, and the repeated need to urinate. History revealed he had lost 8 kg in the last few months.

Laboratory results showed :Blood glucose: 260 mg/dl, Urine sample was 2+ for glucose, HbA1c was 10% (n=4-6.2%). Serum and Urine ketone was negative.

- What is the probable diagnosis?
- What is the WHO criteria used to diagnose the condition?
- What is the biochemical basis of signs and symptoms?

(1,2,2)

2120
M.B.B.S. Prof. First
Paper – A: Bio-chemistry (Old)

Time allowed: 3 Hours

Max. Marks: 50

NOTE: Attempt all questions. Use separate answer sheet for each Unit. Illustrate your answers with suitable diagrams.

x-x-x

UNIT – I

I. Write short note on:-

- a) Essential fatty acids
- b) Isoelectric pH
- c) Basal Metabolic rate
- d) Isomerism in carbohydrates (4x2)

II. Explain:-

- a) Allosteric enzymes
- b) Secondary structure of protein
- c) Structure of lipoproteins (2,2,3)

III. Discuss briefly:-

- a) Process of Glycolysis and its energetics
- b) Biosynthesis of cholesterol and its regulations
- c) Beta oxidation of fatty acids
- d) Serum electrophoresis and its clinical significance (4x2½)

UNIT – II

IV. Explain the following:-

- a) Specialized products of tyrosine
- b) One Carbon metabolism
- c) Salvage Pathway
- d) Synthesis and utilization of ketone bodies (4x2½)

P.T.O.

(2)

V. Give the biochemical basis and clinical manifestation in following disorders of

- a) Phenyl ketonuria
- b) Maple Syrup urine disease
- c) Hereditary fructosuria
- d) Galactosemia
- e) Von Gierke's disease

(5x1)

VI. Discuss briefly:-

- a) Urea cycle with its regulation and metabolic disorder
- b) Oxygen dissociation curve
- c) ETC with inhibitors

(4,3,3)

x-x-x

Time allowed: 3 Hours

Max. Marks: 100

NOTE: Attempt all questions. Use separate answer sheet for each Unit. Draw diagrams wherever necessary.

X-X-X

UNIT – I

- I.
 - a) Describe the process of eukaryotic translation with a flow diagram.
 - b) List the inhibitors of translation with their clinical importance. (2x5)
- II. Answer briefly:-
 - a) Wald's visual cycle
 - b) G-protein in signal Transduction with diagram
 - c) Creatinine clearance Test and its importance
 - d) Name the antioxidant vitamin and their role in our body
 - e) Biochemical function of Biotin (5x4)
- III. Justify:-
 - a) Oedema in Nephrotic syndrome
 - b) Loss of contact Inhibition in Tumour cell
 - c) Use of Taq polymerase in PCR instead of DNA polymerase
 - d) Presence of modified bases in t-RNA
 - e) GTP as a regulator for ATP synthesis (5x2)
- IV.
 - a) The patient was operated for acute intestinal obstruction. He had continuous gastric aspiration for the last three days. The arterial blood gas report of the patient revealed:

pH - 7.54	Serum Sodium - 130 mEq/L
pCO ₂ - 45 mm Hg	Serum Potassium – 2.8 mEq/L
HCO ₃ ⁻ - 36 mmol/L	Serum Chloride – 90 mEq/L

 - i) Comment on the acid base status
 - ii) Is there any change in the serum potassium level, if so what and why?
 - iii) Calculate the anion gap and comment on the anion gap? (1+2+2)
 - b) A 55-year-old woman visited her family physician complaining of chronic fatigue and sluggishness. On questioning, a history of constipation and cold intolerance was elicited. The patient was moderately obese and her voice was coarse. There was moderate enlargement of the thyroid gland.
 - i) What is the most probable cause?
 - ii) Which laboratory test will you advise for the patient?
 - iii) How will you interpret the results to arrive at a diagnosis? (1+2+2)

(2)

VI. (a) Enumerate: -

- (i) Derivatives of paramesonephric duct in females
- (ii) Branches of popliteal artery
- (iii) Branches of right coronary artery
- (iv) Contents of inguinal canal

(4×1)

(b) Discuss applied anatomy of: -

- (i) Varicose-veins of lower limb
- (ii) Esophageal varices

(2×2)

**_*_

2120

M.B.B.S. Prof. First
Paper – A: Biochemistry

Time allowed: 3 Hours

Max. Marks: 100

NOTE: Attempt all questions. Use separate answer sheet for each Unit. Draw diagrams wherever necessary.

X-X-X

UNIT – I

- I. Answer the following:-
 - a) Outline the pathway of Glycogenolysis.
 - b) Give an account of reciprocal regulation of glycogen synthesis and degradation.
 - c) What is the difference between glycogenolysis in the muscle and liver?
 - d) Give the biochemical defect and main feature of Von Gierke's disease.
(3,3,2,2)
- II. Answer the following briefly:-
 - a) What are Glycosaminoglycans? Describe the various types of Glycosaminoglycans and their biochemical functions.
 - b) Describe the functional classification of proteins with suitable examples.
 - c) Explain the Watson crick model of DNA structure along with its diagrammatic representation.
 - d) Outline the important products synthesized from glycine.
 - e) Explain the synthesis and utilization of ketone bodies. Enumerate conditions with ketonemia.
(5x4)
- III. Justify/give reason for the following:-
 - a) Biological cell membrane is described as protein icebergs in sea of lipids.
 - b) Liposomes are used as drug carriers.
 - c) Strenuous exercise often causes muscle cramps.
 - d) Newborns with physiological jaundice are treated with phototherapy.
 - e) Cyanide is one of the most potent and fast acting poisons.
(5x2)
- IV. Answer the flowing briefly:-
 - a) Identify and discuss the physician's role and responsibility to the society and the community that she/ he serves.
(5)
 - b) A 74 yrs old male presented with abnormal rhythmic movements of the upper and lower limbs for 01 year. Patient gave history of difficulty in walking in the form of difficulty in initiation and once he starts he stoops forward with small and fast steps (shuffling gait), along with decreased swinging of hands while walking. There is no history of fall or head injury.
 - i) What is your probable diagnosis?
 - ii) Discuss the biochemical basis of the disease.
(2,3)

P.T.O.

(2)

UNIT – II

V. Describe rectum under the following headings: -

- a) Gross anatomy
- b) Course and relations and supports
- c) Interior of rectum
- d) Blood supply and lymphatic drainage
- e) Applied Anatomy

(5x2)

VI. Draw well labeled diagrams of the following: -

- a) Transverse section of thorax at the level of fourth thoracic vertebra
- b) Conducting system of heart
- c) Sagittal section through female pelvis showing peritoneal reflections
- d) Posterior relations of left kidney
- e) Relations of extensor retinaculum of the ankle

(5x4)

VII. Enumerate the following: -

- a) Contents of adductor canal
- b) Arteries supplying esophagus
- c) Branches of superior mesenteric artery
- d) Components of Tetralogy of fallot
- e) Derivatives of mesonephric duct in males

(5x2)

VIII. a) A person develops difficulty in breathing and it worsened on lying down. Chest x-ray reveals pleural effusion.

- i) From which intercostal spaces accumulated fluid can be removed?
- ii) What precautions need to be taken while doing paracentesis?

b) A man has longstanding history of cough. He notices a swelling in groin at, the time of straining for stool

- i) What is the cause of swelling?
- ii) What are the differences between inguinal and femoral hernia?
- iii) What are the coverings of the sac of direct inguinal hernia?

(2x5)

2120

M.B.B.S.-1st Prof.Paper-B: Anatomy (*Old*)

Time allowed: 3 Hours

Max. Marks: 50

NOTE: *Attempt all questions. Illustrate your answers with suitable diagrams.*

-*_*_*_*

PART-I

- I. Draw well labeled diagrams of: -
- (a) Microscopic structure of testis
 - (b) Boundaries and contents of popliteal fossa
 - (c) Transverse section of thorax at the level of third thoracic vertebra.
 - (d) Anterior relations of right kidney (4×2)
- II. Write briefly about: -
- (a) Superficial inguinal lymph nodes and their applied anatomy
 - (b) Mechanism of respiration
 - (c) Second part of duodenum (3×3)
- III. Discuss in brief: -
- (a) Gross features, zones, age changes and applied anatomy of prostate
 - (b) Origin course and distribution of obturator nerve (2×4)

PART-II

- IV. Write short notes on: -
- (a) Inguinal canal
 - (b) Development of interatrial septum and anomalies associated with it
 - (c) Conducting system of heart (3×3)
- V. Discuss in brief: -
- (a) Development, blood supply and lymphatic drainage of stomach
 - (b) Articulations, ligaments, movements and applied anatomy of Hip joint (2×4)

P.T.O.

(2)

VI. (a) Enumerate: -

- (i) Branches of internal carotid artery
- (ii) Muscles supplied by median nerve in hand
- (iii) Derivations of 2nd pharyngeal arch
- (iv) Branches of mandibular nerve

(4×1) Time
NOT

(b) Write applied anatomy of: -

- (i) Brown Sequard syndrome
- (ii) Cervical rib

(2×2)

-*-*-*

II

IV

2120
M.B.B.S. Prof. First
Paper – B: Anatomy

Time allowed: 3 Hours

Max. Marks: 100

NOTE: Attempt all questions. Use separate answer sheet for each Unit. Illustrate your answers with suitable diagrams.

x-x-x

UNIT – I

- I. Describe pancreas under the following headings: -
- a) Parts and Relations
 - b) Blood supply and lymphatic drainage
 - c) Development
 - d) Applied anatomy (10)
- II. Write short notes on: -
- a) Arch of aorta and its development
 - b) Pelvic part of ureter
 - c) Ischiorectal fossa
 - d) Subtalar joint
 - e) Typical intercostal space (5x4)
- III. Explain the anatomical / embryological basis of: -
- a) Achalasia cardiac
 - b) Extravasation of urine
 - c) Hydrocoele
 - d) Trendelenburgs Sign
 - e) Pes Cavus (5x2)
- IV. a) What are the difference between body donation and organ donation programme?
- b) A man is employed in a job requiring long standing hours. He notices Veins becoming prominent in lower leg.
- i) What is the condition he is suffering from?
 - ii) What is the cause of dilatation of superficial veins of leg? (2x5)

P.T.O.

(2)

UNIT – II

V. Describe temporomandibular joint under following headings: -

- a) Articulations
- b) Ligaments
- c) Movements
- d) Applied anatomy

(10)

VI. Draw well labelled diagrams of the following: -

- a) Microscopic anatomy of thymus
- b) Transverse section of midbrain at the level of superior colliculus
- c) Relations of Hyoglossus muscles
- d) Arterial anastomosis around scapula
- e) Hypothalamohypophyseal tract and portal system

(5x4)

VII. Enumerate the following: -

- a) Arteries participating in formation of kiesselbach's plexus
- b) Contents of middle ear cavity
- c) Derivatives of First pharyngeal pouch
- d) Nuclei of Vagus Nerve
- e) Branches of radial nerve in spiral groove

(5x2)

VIII. a) A man had fracture of proximal humerus. Later he finds difficulty in raising the arm at shoulder joint.

- i) Which nerve is likely to be involved?
- ii) What is the source of the nerve and structures supplied by it?

b) A person after falling on outstretched hand, develops fullness in anatomical snuff box?

- i) What could be the cause of swelling?
- ii) What could be other sites of fracture after falling on outstretched hand? (2x5)

2120

M.B.B.S.-1st Prof.Paper-A: Anatomy (*Old*)

Time allowed: 3 Hours

Max. Marks: 50

NOTE: Attempt all questions. Illustrate your answers with suitable diagrams.

- * - * - *

PART-I

- I. Draw well labeled diagrams of: -
- Medial wall of middle ear
 - Horizontal section through parotid gland showing its relations and structures passing through it.
 - Transverse section through medulla oblongata at the level of sensory decussation.
 - Histology of pituitary gland (4×2)
- II. Write briefly about: -
- Course distribution and applied anatomy of ulnar nerve distal to elbow.
 - Paranasal sinuses and their applied anatomy
 - Waldeyer's lymphatic ring (3×3)
- III. Describe in brief: -
- Facial spaces of hand and their applied anatomy.
 - Structures, functions and defects of placenta (2×4)

PART-II

- IV. Write short notes on: -
- Kliefelter's syndrome
 - Gastrulation
 - Third ventricle (3×3)
- V. Discuss in brief: -
- Muscles of pharynx
 - Commissural fibres of brain (cerebrum) (2×4)

P.T.O.

2120
M.B.B.S. Prof. First
Paper – A: Anatomy

Time allowed: 3 Hours

Max. Marks: 100

NOTE: Attempt all questions. Use separate answer sheet for each Unit. Illustrate your answers with suitable diagrams.

x-x-x

UNIT – I

- I. Discuss Thyroid gland under following headings: -
- a) Gross Anatomy
 - b) Relations
 - c) Blood supply & applied anatomy associated with it
 - d) Development and its congenital anomalies (10)
- II. Write short notes on: -
- a) Down's syndrome
 - b) Development of face and defect associated with
 - c) Commisural fibres of white matter of Brain
 - d) Klumpke's paralysis
 - e) Palatine tonsil (5x4)
- III. Explain the anatomical / embryological basis of:-
- a) Thyroglossal cyst
 - b) Dangerous area of face
 - c) Wrist drop
 - d) Policemen tip deformity
 - e) Cauda equina syndrome (5x2)
- IV. a) What precautions should be taken while dissecting the cadaver?
- b) A man of 50 years had viral fever. One fine morning he sees asymmetry in both sides of face, further he was unable to close the eyelid of right side.
- a) What could be the possible diagnosis?
 - b) Explain the reason of the clinical symptoms (2x5)

P.T.O.

- ii) Discuss the biochemical basis of the disease.

(2,3)

P.T.O.

(2)

UNIT - II

- V. Draw a labeled diagram to show various phases of the action potential in a ventricular myocyte and its relation to mechanical events in cardiac muscle. Briefly explain why the cardiac muscle cannot be tetanized. (6+4)
- VI. Explain with diagram/flowcharts wherever required:-
- a) Chemical control of respiration
 - b) Enterohepatic circulation of bile
 - c) FEV₁
 - d) Secretion and function of pulmonary surfactants (4x5)
- VII. Give reasons why:-
- a) Cardiac muscle cannot be tetanized
 - b) A compensatory pause follows an extrasystole
 - c) In healthy individuals, anatomical dead space is almost equal to physiological dead space
 - d) Juxtamedullary nephrons help in concentration of urine
 - e) Patients of Chronic renal disease require injections of Erythropoietin (5x2)
- VIII. A 31-year-old man arrived by ambulance at the emergency department after suffering a laceration to the left thigh in an industrial accident that cut the femoral artery, causing the loss of 1.5 L of blood. The patient had fainted and his pulse was weak. His blood pressure initially was unrecoverable. Bleeding was controlled by direct pressure, and the patient received 2 L of 0.9% saline during transport.
- a) The diagnosis in this case is?
 - b) Outline the pathophysiology of his condition.
 - c) List the signs and symptoms of shock. (2,6,2)

Time allowed: 3 Hours

Max. Marks: 50

NOTE: Attempt all questions. Use separate answer sheet for each Unit. Draw well labeled diagrams wherever necessary.

x-x-x

UNIT – I

- I. Describe Immunity and its different types. Discuss in details the role of Tlymphocytes in immunity. (3+4)
- II. Differentiate between:-
- a) Cortical and Medullary nephrons
 - b) Primary and secondary immune response.
 - c) Functional residual capacity and Residual volume.
 - d) Gastrin and secretin
 - e) Segmental movement and peristalsis (5x2)
- III. Write short notes on:-
- a) Baroreceptors
 - b) Hypoxic hypoxia
 - c) Dead space (3+3+2)

UNIT – II

- IV. Discuss the role of surfactant in lung compliance, with the help of compliance diagram explain lung compliance during inspiration and expiration. (7)
- V. Write short notes on:-
- a) Frank-starting law
 - b) FEV1
 - c) Peptic ulcer (3x4)
- VI. Explain why:-
- a) Peripheral chemoreceptors are not stimulated in anemic hypoxia
 - b) Antithrombotic agents are used within 6 hrs of myocardial infarction
 - c) Residents of high altitude have prominent facial bones (3x2)

x-x-x