NTRUHS 2K20 ANATOMY PAPER-1

Q.P. CODE:501-A-CBME

DR. NTR UNIVERSITY OF HEALTH SCIENCES:AP:VIJAYAWADA-520 008
M.B.B.S. DEGREE EXAMINATION – JAN/FEB, 2022
FIRST M.B.B.S. EXAMINATION
HUMAN ANATOMY – PAPER-I
(Theory Questions)

Time : 2 ½ Hours Max. Marks: 80

Note: Answer all questions
Draw diagrammatic representation wherever necessary.

SECTION-II – (THEORY QUESTIONS - 80 MARKS)

STRUCTURED ESSAY QUESTIONS: 2X1

1) Describe the mammary gland under
   a. Morphology
   b. Mammary bed
   c. Blood supply
   d. Applied anatomy
2) Enumerate the cranial nerves in order. Describe the course, branches and applied anatomy of facial nerve

SHORT ANSWER QUESTIONS: 10X

3) Neurons
4) Development of bones
5) Cubital fossa
6) Digastric triangle
7) Histology of parotid gland
8) Histology of loose areolar tissue
9) White fibres of brain
10) Wrist drop
11) Adipose tissue
12) Implantation

DR. NTR UNIVERSITY OF HEALTH SCIENCES:AP:VIJAYAWADA Q.P. CO 08

M.B.B.S. DEGREE EXAMINATION – JAN/FEB, 2022

FIRST M.B.B.S. EXAMINATION

HUMAN ANATOMY – PAPER-I (Set A)

(Multiple Choice Questions)

Time : 20 Minutes Max. Marks: 20

Note : Answer all questions

SECTION – I (MCQs- 20 MARKS) 1x20=20

1) Which of the following bone is Pneumatic Bone
   a) Nasal bone
   b) Parietal bone
   c) Mandible
   d) Ethmoid bone .

2) Which of the following bone is best example for Membrano-cartilaginous ossification
   a) Clavicle
   b) Humerus
   c) Parietal bone
   d) Femur bone

3) "Joint innervated by the branch of motor nerve that supplying the muscle acting on the same joint" is:
   a) Wolff's law
   b) Hilton's law
   c) All or none law
   d) Muller' law

4) Large ducts of exocrine glands are line by
   a) Stratified columnar
   b) Stratified squamous non- keratinized
   c) Simple columnar with brush border
   d) Simple columnar with cilia

5) Mucous acini are with
   a) Tall cells with flattened basal nuclei
   b) Cuboid cells with central round nuclei
   c) Tall cells with basal elongated nuclei
   d) Flattened cells with central nuclei

6) Basal laminae of basement membrane contains the following type of collagen fibers
   a) Type – I
   b) Type – II
   c) Type – III
   d) Type – IV

ntd 2

7) Thoracoacromial (Acromiothoracic) artery is a branch from:
   a) 1st part of subclavian artery
   b) 1st part of axillary artery
   c) 2nd part of subclavian artery
   d) 2nd part of axillary artery

8) Axillary nerve (C5, C6) supplies the following muscle:
   a) Deltoid muscles
   b) Subscapularis muscle
   c) Supraspinatus muscle
   d) Subclavius muscle

9) Cause for the Policeman's tip hand deformity
   a) Injury to the upper trunk of Brachial plexus
   b) Injury to the lower trunk of Brachial plexus
   c) Injury of the Medial Cord of Brachial plexus
   d) Injury to the Lateral Cord of Brachial plexus

10) Horner's syndrome is due to
   a) Injury to parasympathetic fibers to the head and neck
   b) Injury to sympathetic fibers to the head and neck
   c) Injury to Optic nerve
   d) Injury to ophthalmic division of Trigeminal nerve

11) Axillary nerve is the branch from
   a) Lower trunk of brachial plexus
   b) Upper trunk of the brachial plexus
   c) Lateral cord of brachial plexus
   d) Posterior cord of brachial plexus

12) Pterion related to
   a) Anterior division of middle meningeal artery
   b) Parietal branch of superficial temporal artery
   c) Internal carotid artery
   d) Maxillary artery

13) Motor nerve supply to the scalp anterior to the auricle
   a) Zygomaticotemporal nerve
   b) Supraorbital nerve
   c) Temporal branch of facial nerve
   d) Auriculotemporal branch

14) Following layer of scalp is considered as the dangerous area of scalp
   a) Superficial fascia
   b) Galea aponeurotica
   c) Layer of loose areolar tissue
   d) Periranium

15) Bell's palsy is:
   a) Infranuclear lesion of facial nerve
   b) Lesion at trigeminal nerve at its nucleus
   c) Cervical plexus lesion
   d) Mandibular division of trigeminal nerve lesion

16) Which of the following is NOT the content of carotid sheath
   a. Internal carotid artery
   b. Internal jugular vein
   c. Vagus nerve
   d. Sympathetic trunk

17) Facial colliculus is formed by
   a) Facial nerve fibers winding around abducent nucleus
   b) Abducent nerve fibers winding around facial nerve nucleus
   c) Facial nerve fibers winding around vestibular nucleus
   d) Facial nerve nucleus and abducent nucleus merge to cause elevation

18) Substantia nigra is located in:
   a) Ventral part of the medulla oblongata
   b) Basilar part of the pons
   c) Cerebral peduncles of midbrain
   d) Around the inferior cerebellar peduncle

19) Medial Geniculate body is related to:
   a) Visual pathway
   b) Auditory pathway
   c) Gustatory pathway
   d) Proprioception pathway

20) Forceps minor is formed by the fibers passing through the following part of the corpus callosum
   a) Rostrum
   b) Genu
   c) Splenium
   d) Body/ Trunk

PHYSIOLOGY PAPER 1

DR. NTR UNIVERSITY OF HEALTH SCIENCES:AP:VIJAYAWADA-520 008 **Q.P. CODE:503-A-CBME**

M.B.B.S. DEGREE EXAMINATION – JAN/FEB, 2022

FIRST M.B.B.S. EXAMINATION

PHYSIOLOGY – PAPER-I

(Theory Questions)

Time : 2 Hours 40 Minutes Max. Marks: 80

Note: Answer all questions

Draw diagrammatic representation wherever necessary.

SECTION-II – (THEORY QUESTIONS - 80 MARKS)

ESSAY QUESTIONS: 2X15=30

1) With the help of a suitable diagram, describe the O_2-Hb dissociation curve and mention two factors shifting the curve to right. Enumerate four special features of pulmonary circulation. What is Haldane effect? (6+2+4+3)

2) Define systolic and diastolic blood pressure and give their normal values. Explain the baroreceptor reflex in response to decreased blood pressure. Add a note on orthostatic hypotension. (4+8+3)

SHORT ANSWER QUESTIONS: 10X5-50

3) Facilitated diffusion

4) Mechanism of humoral immunity

5) Megaloblastic anemia

6) Mechanism of HCl secretion from stomach

7) Regulation of pancreatic secretion

8) Mechanism and function of peristalsis and segmental contraction of intestine

9) A new born male presented with anemia, jaundice and generalized edema. His blood group was AB+ and the mother's blood group was A-. Three years back his sister was born and she was normal with blood group of A+.
   a) What is your provisional diagnosis?
   b) What is the cause of anaemia?
   c) How will you treat this condition?
   d) How could you have prevented these symptoms?

10) Counter current multiplier

11) Mechanism of glucose absorption in renal tubule

12) A 70 year old male presented with breathlessness on exertion. On examination, his pulse was 110/min and he had edema in the ankle and feet. The liver and spleen were found to be enlarged and jugular venous pulse was raised.
   a) What is your probable diagnosis?
   b) Explain the pathophysiology of edema in this condition
   c) Mention one drug treat this condition and write its mechanism of action.

CBME

DR. NTR UNIVERSITY OF HEALTH SCIENCES:AP:VIJAYAWADA-520 008
M.B.B.S. DEGREE EXAMINATION – JAN/FEB, 2022
FIRST M.B.B.S. EXAMINATION
PHYSIOLOGY – PAPER-I (Set A)
(Multiple Choice Questions)

Time : 20 Minutes
Max. Marks: 20

Note : Answer all questions

SECTION – I (MCQs- 20 MARKS) 1x20=20

1) The medullary stage of hemopoiesis starts in:
   a) 5th month of fetal life
   b) 7th month of fetal life
   c) 9th week of fetal life
   d) After birth

2) Iron deficiency anemia is
   a) Macrocytic hypochromic
   b) Microcytic hypochromic
   c) Normocytic hypochromic
   d) Normocytic normochromic

3) Which of the following chemical is not released from dense granules of platelets?
   a) ADP
   b) Fibronectin
   c) Serotonin
   d) Calcium

4) In clotting mechanism via intrinsic and extrinsic pathway, the key reaction is:
   a) Formation of thrombin
   b) Formation of fibrin
   c) Formation of prothrombin activator
   d) Conversion of factor X to Xa

5) Dicoumarol acts by:
   a) Chelating calcium
   b) Inhibiting thrombin activity
   c) Inhibiting plasmin activators
   d) Inhibiting Vitamin K

6) Conduction velocity of cardiac impulse is highest in which part of conducting system?
   a) Internodal pathways
   b) His bundle
   c) Purkinje fibers
   d) Bundle branches

Contd 2

7) Ejection fraction of the ventricle refers to the ratio of:
   a) Amount of blood received to amount of blood ejected
   b) Stroke volume to end diastolic volume
   c) End-systolic volume to end diastolic volume
   d) Stroke-volume to end systolic volume

8) Bradycardia is seen in
   a) Beriberi
   b) Anemia
   c) Myxedema
   d) Paget's disease

9) The common artery involved in cerebral hemorrhage is:
   a) Lenticulostriate branch of middle cerebral artery
   b) Posterior basilar artery
   c) Anterior cerebral artery
   d) Middle meningeal artery

10) 'a' wave of jugular venous pulse is caused by
   a) Atrial systole
   b) Ventricular systole
   c) Arial diastole
   d) Ventricular diastole

11) Surfactant is produced by:
   a) Type II pneumocytes
   b) Type I pneumocytes
   c) Macrophages
   d) Endothelial cells

12) Timed-vital capacity of FEV1 is < 70% in:
   a) Bronchial asthma
   b) Bronchitis
   c) Pulmonary fibrosis
   d) Lung collapse

13) Ventilation perfusion ratio is maximum at:
   a) Apex of lung
   b) Base of lung
   c) Posterior lobe of lung
   d) Middle of the lung

Contd ... 3

14) The pacemaker of respiration where spontaneous rhythmic respiration initiated is:
   a) Dorsal nuclear group
   b) Apneustic centre
   c) Pnemotaxic centre
   d) Pre Botzinger complex

15) Carbon monoxide poisoning is a type of:
   a) Anaemic hypoxia
   b) Histotoxic hypoxia
   c) Hypoxic hypoxia
   d) Stagnant hypoxia

16) Which is true about juxtamedullary nephrons?
   a) Accounts for 85% of total nephrons
   b) Length of LoH is short
   c) Efferent arteriole form vasa recta
   d) Renin content is less

17) Substrate which is both secreted and filtered
   a) Uric acid
   b) Glucose
   c) Urea
   d) Na+

18) Water reabsorption that occurs secondary to solute reabsorption is called:
   a) Obligatory reabsorption
   b) Facultative reabsorption
   c) Complementary reabsorption
   d) Compulsive reabsorption

19) Which part of kidney tubule plays less role in acidification of urine?
   a) PCT
   b) LoH
   c) DCT
   d) Collecting duct

20) Spastic neurogenic bladder is seen in:
   a) Spinal cord transection
   b) Deafferentation
   c) Denervation
   d) Bladder tumor

Physiology paper 2

Q.P. CODE:504-A-CBME

DR. NTR UNIVERSITY OF HEALTH SCIENCES:AP:VIJAYAWADA-520 008
M.B.B.S. DEGREE EXAMINATION – JAN/FEB, 2022
FIRST M.B.B.S. EXAMINATION
PHYSIOLOGY – PAPER-II
(Theory Questions)

Time : 2 Hours 40 Minutes
Note: Answer all questions
Draw diagrammatic representation wherever necessary.

Max. Marks: 80

SECTION-II – (THEORY QUESTIONS - 80 MARKS)

ESSAY QUESTIONS: 2X15=30

1) Describe the structure and function of muscle spindle. List four differences between upper and lower motor neuron paralysis. Explain the physiological basis of any one feature of upper motor neuron paralysis. (4+4+4+3)
2) Describe the mechanism of action and list the functions of insulin. Write four features of diabetes mellitus. Explain the physiological basis of any one feature. (3+6+4+2)

SHORT ANSWER QUESTIONS: 10X5-50

3) Functions of thalamus
4) Consensual light reflex
5) Indicators of ovulation
6) Auditory pathways
7) Steps of spermatogenesis and factors affecting it
8) Draw a labelled diagram and give the ionic basis of nerve action potential
9) A 60 year old male presented with mask face, resting tremor of hand and he walked with short, shuffling steps. Also, he was found to have bradykinesia of movements.
10) List the electrical and mechanical properties of smooth muscle
11) Bodily responses activated by cold
12) A 50 year old female complaints of intolerance to heat and increased appetite. She was found to have exophthalmos and sinus tachycardia.
    a) What is your provisional diagnosis?
    b) Give the physiological basis of sinus tachycardia and intolerance to heat
    c) Name a drug used to treat this condition

DR. NTR UNIVERSITY OF HEALTH SCIENCES:AP:VIJAYAWADA-520 008 **CBME**

M.B.B.S. DEGREE EXAMINATION – JAN/FEB, 2022

FIRST M.B.B.S. EXAMINATION

PHYSIOLOGY – PAPER-II(Set A)

(Multiple Choice Questions)

Time : 20 Minutes

Note : Answer all questions

Max. Marks: 20

SECTION – I (MCQs- 20 MARKS) 1x2=20

1) Myelinated nerves
   a) Axons have smaller diameter
   b) Nerve impulses travels uniformly along axolemma
   c) Density of voltage gated Na+ channels are more
   d) Na+ channels are less in axons

2) The following vitamin is essential for oxidation of pyruvic acid and lactic acids in the neurons
   a) Vitamin B1
   b) Vitamin B6
   c) Vitamin B12
   d) Vitamin B2

3) lidocaine
   a) K+ channel blocker
   b) Na+-K+ ATPase blocker
   c) Membrane toxin
   d) Na+ channel blocker

4) In isometric contraction in skeletal muscle, there is
   a) Increase in muscle length
   b) Increase in muscle tension
   c) External work is done
   d) Decrease in muscle length

5) Staircase phenomenon (Treppe) is due to
   a) Tetanus
   b) Summation of contraction
   c) Progressively increased calcium available in the sarcoplasm
   d) Increased Troponin level in the thin filaments

Contd 2

6) Sertoli cells secrete:
   a) Testosterone
   b) Estrogen
   c) Androstenedione
   d) Inhibin

7) The primordial follicle becomes primary follicle at
   a) 28 weeks of gestation
   b) 21 weeks of gestation
   c) 14 weeks of gestation
   d) 7 weeks of gestation

8) Main hormone in luteal phase is:
   a) Estrogen
   b) Progesterone
   c) Prolactin
   d) Oxytocin

9) Progesterone mainly causes development of which component of the breast?
   a) Duct system
   b) Lobulo-alveolar system
   c) Parenchyma of breast
   d) Myoepithelial cells of breast

10) Which is the best contraceptive method for a lady before 1st child birth?
   a) OCP
   b) IUD
   c) Tubectomy
   d) Diaphragms

11) scavenger cells in brain?
   a) Astrocyte
   b) Oligodendrocyte
   c) Golgi cells
   d) Microglia

12) The inhibitory neurotransmitter in CNS neurons is:
   a) Glutamate
   b) Aspartate
   c) Gamma-amino butyric acid
   d) Taurine

13) The action potential from a receptor is generated at:
   a) Lamella at nerve ending
   b) Nerve ending
   c) First node of Ranvier
   d) Cells attached to the nerve ending

14) Which of the following sensation is not carried in dorsal column pathway?
   a) Vibration
   b) Stereognosis
   c) Crude touch
   d) Proprioception

15) Which of the following is 'True' about visceral pain?
   a) It is poorly localized
   b) Resembles 'fast pain' produced by noxious stimulation of the skin
   c) Mediated by B fibers in the dorsal roots of the spinal nerves
   d) Causes relaxation of nearby skeletal muscles

16) The diameter of golgi tendon organ is
   a) 100mm
   b) 150mm
   c) 50mm
   d) 200mm

17) Striatonigral projection ; degeneration of this pathway produces
   a) Parkinsonism
   b) Huntingtons disease
   c) Ballism
   d) Hemiballism

18) Slow wave sleep associated with:
   a) Dreams
   b) Cardiac arrhythmia
   c) Penile intumescence
   d) Delta activity

19) The total refractive power of eye is 60 D which is contributed by
   a) 43 D by lens and 17 D by cornea
   b) 30 D by lens and 30 D by cornea
   c) 23 D by lens and 37 D by cornea
   d) 17 D by lens and 43 D by cornea

20) Hemineglect occurs in lesion of:
   a) Temporal lobe
   b) Prefrontal lobe
   c) Parietal lobe
   d) Frontal lobe

Biochemistry paper 1

Q.P. CODE:500-B-CBME

DR. NTR UNIVERSITY OF HEALTH SCIENCES:AP:VIJAYAWADA-520 008
M.B.B.S. DEGREE EXAMINATION – JAN/FEB, 2022
FIRST M.B.B.S. EXAMINATION
BIOCHEMISTRY – PAPER-I
(Theory Questions)

Time : 2 Hours 40 Minutes
Max. Marks: 80

Note: Answer all questions
Draw diagrammatic representation wherever necessary.

SECTION-II – (THEORY QUESTIONS - 80 MARKS)

STRUCTURED ESSAY QUESTIONS: 2X15=30

1) What are essential fatty acids? Give examples. What are the steps in cholesterol synthesis? Add a note on regulation of cholesterol synthesis. Name the degraded products or derivatives of cholesterol. (2+2+6+3+2)

2) What is polysaccharide? Give examples. How is glycogen synthesized from glucose and broken down to glucose? Add a note on type I glycogen storage disorders. (2+2+4+4+3)

SHORT ESSAY QUESTIONS: 10X5-50

3) A 65 year old chronic smoker and alcoholic suffered from non specific symptoms like epigastric discomfort, recurrent diarrhoea. On examination he had stomatitis, esophagitis and exfoliative dermatitis. Lab test showed raised AST, ALT & GGT with ultrasound features of fatty liver. Treatment with 500 mg daily niacinamide was started. dermatitis and other symptoms reduced. He restricted alcohol and increased consumption of other B complex Vitamins and food sources of B complex vitamins.
   a) What is the diagnosis?
   b) Name the Coenzymes of this Vitamin
   c) What are its Biochemical functions?

4) 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

5) What is Detoxification? Add a note on phase one reactions.
6) Describe the types of Protein Energy Malnutrition.
7) Describe Glomerular function tests.
8) What is Nitrogen balance and what are the factors affecting Nitrogen balance?
9) Enumerate the steps of Heme degradation.
10) List out the Biochemical functions of Pyridoxine.
11) What are the therapeutic and diagnostic applications of enzymes?
12) Describe chemiosmotic theory and give two examples for uncouplers.

DR. NTR UNIVERSITY OF HEALTH SCIENCES:AP:VIJAYAWADA-520 0

M.B.B.S. DEGREE EXAMINATION – JAN/FEB, 2022

FIRST M.B.B.S. EXAMINATION

BIOCHEMISTRY – PAPER-I (Set A)

(Multiple Choice Questions)

Max. M

Time : 20 Minutes

Note : Answer all questions

SECTION – I (MCQs- 20 MARKS)

1) Digestive enzymes belong to the class of
   a) Hydrolases
   b) Ligases
   c) Lysates
   d) Oxidoreductases

2) Enzymes which are synthesized in inactive form are called
   a) Coenzymes
   b) Apoenzymes
   c) Lysozymes
   d) Proenzymes

3) Km value indicates
   a) Affinity of enzyme for substrate
   b) Maximum velocity
   c) Specificity of substrate
   d) Saturating concentration of substrate

4) Which of the electron carriers is soluble and mobile?
   a) Co Q
   b) Cytochrome c
   c) Cytochrome a
   d) Cytochrome b

5) Which of the hormone can uncouple oxidative phosphorylation in high concentrations?
   a) Insulin
   b) Cortisol
   c) Thyroxine
   d) Glucagon

6) Which tissue is most insulin sensitive
   a) Brain
   b) Liver
   c) Adipose tissue
   d) Cardiac muscle

7) Blood is collected in fluoride oxalate bottle to
   a) Prevent clotting
   b) Preserve glucose
   c) Preserve glucose prevent clotting
   d) Get quick results

8) Which enzyme catalyses an irreversible reaction?
   a) Transketolase
   b) Phosphofructokinase
   c) Phosphate dehydrogenase
   d) Aldolase

9) Gluconeogenesis is inhibited by
   a) Glycogen
   b) Growth hormone
   c) Insulin
   d) Glucocorticoids

10) Formiminoglutamic acid is excreted in urine in the Deficiency of
   a) Folic acid
   b) Vitamin B12
   c) Niacin
   d) Pyridoxal phosphate

11) Deficiency of pantothenic acid leads to
   a) Night blindness
   b) Rickets
   c) Macrocytic Anaemia
   d) Burning foot syndrome

12) A patient who has undergone gastrectomy is likely to develop deficiency of
   a) Vitamin A
   b) Vitamin B12
   c) Vitamin B1
   d) Vitamin K

13) The organelle in the body mainly concerned with free radical scavenging is
   a) Lysosomes
   b) Golgi bodies
   c) Nucleolus
   d) Peroxysomes

14) Which of the following processes make use of free radical effects?
   a) Cell adhesion
   b) Phagocytosis
   c) Contact inhibiton
   d) Transcytosis

Contd .

15) For the de no fatty acid synthesis, the coenzyme required is
   a) NADH
   b) NADPH
   c) Thiamine Pyro Phosphate
   d) FADH2

16) The enzyme which is active only in the liver is
   a) HMGCoA reductase
   b) Carnitine acyl transferase
   c) Lecithin cholesterol acyl transferase
   d) HMGCoA Lyase

17) Which of the following tissue cannot derive energy from fatty acids
   a) Brain
   b) Cardiac muscle
   c) Skeletal muscle
   d) Erythrocytes

18) Which is required for synthesis of porphyrins
   a) Ammonia
   b) Methionine
   c) Glycine
   d) CO2

19) Specific gravity of Urine increases in
   a) Chronic glomerulonephritis
   b) Diabetes Mellitus
   c) Liver disease
   d) Intake of vegetables

20) Renal plasma flow is measured by
   a) Creatinine clearance
   b) Inulin clearance
   c) PAH Clearance
   d) Urine output

Biochemistry paper 2

DR. NTR UNIVERSITY OF HEALTH SCIENCES:AP:VIJAYAWADA-520 008

Q.P. CODE:500-B-CBME

M.B.B.S. DEGREE EXAMINATION – JAN/FEB, 2022

FIRST M.B.B.S. EXAMINATION

BIOCHEMISTRY – PAPER-II

(Theory Questions)

Time : 2 Hours 40 Minutes Max. Marks: 80

Note: Answer all questions

Draw diagrammatic representation wherever necessary.

SECTION-II – (THEORY QUESTIONS - 80 MARKS)

ESSAY QUESTIONS: 2X15=30

1) What is central dogma of life? Describe the process of translation. What are post translational modification of proteins. Mention three inhibitors of translation. (2+6+4+3)

2) Mention major elements and trace elements of minerals. Describe the functions of calcium. Explain the regulation of serum calcium level. What is normal serum calcium level and add a note on its deficiency manifestations. (2+2+4+4+1+2)

SHORT ANSWER QUESTIONS: 10X5-50

3) A three-year-old girl presented with megaloblastic anaemia and failure to thrive. Obstetric history was uneventful. Aneamia was present, which did not improve despite blood transfusions. There was no response to B12, Folate and Pyridoxine therapy. Urine analysis shown orotic acid crystals. Very high levels of orotate (above 1.0 gm/day, normal is less than 1.4 mg/day) Were excreted. Enzyme assay showed deficiency of orotate phosphoribosyl transferase.
   a) What is the probable diagnosis?
   b) What is the pathogenesis of the finding?
   c) What is the treatment for this condition?

4) A five-year-old child admitted in psychiatry ward has mental retardation with IQ of 50. The child is agitated, hyperactive, tremors and convulsions are noted. The child has hypopigmentation, body sweat and urine has a mousy odour.
   a) What is the djagnosis?
   b) What is the enzyme deficient in this disorder?

5) Describe urea cycle and its disorders.
6) Name Purine bases and add a note on Purine Catabolism.
7) What are plasma proteins and what are the functions of Albumin?
8) Describe the structure of collagen
9) What is transamination reaction? Give two examples.
10) Describe fluid mosaic model of cell membrane.
11) Define acids and basis. Add a note on metabolic acidosis.
12) Describe the types of acquired immunity and their functions.

DR. NTR UNIVERSITY OF HEALTH SCIENCES:AP:VIJAYAWADA-520 008
M.B.B.S. DEGREE EXAMINATION – JAN/FEB, 2022
FIRST M.B.B.S. EXAMINATION
BIOCHEMISTRY – PAPER-II (Set A)
(Multiple Choice Questions)

Time : 20 Minutes
Max. Marks: 2

Note : Answer all questions

1x20

SECTION – I (MCQs- 20 MARKS)

1) During urea cycle two nitrogen atoms are derived from
   a) Ammonia and arginine
   b) Ammonia and aspartic acid
   c) Both from Ammonia
   d) Ammonia and Ornithine

2) Ammonia is trapped in brain by
   a) Glutamine Synthetase reaction
   b) Glutaminase reaction
   c) Urea Synthesis cycle
   d) Glutamate dehydrogenase reaction

3) The Major Donor of Carbon Atoms to the One-Carbon Pool is
   a) Serine
   b) Tyrosine
   c) Threonine
   d) Proline

4) Which amino acid will give rise to major pigment of the body?
   a) Histidine
   b) Glutamic acid
   c) Ornithine
   d) Tyrosine

5) Homogentisic acid is excreted in urine in
   a) Phenylketonuria
   b) Maple syrup urine disease
   c) Tyrosinosis
   d) Alkaptonuria

6) Ochronosis is seen in
   a) Phenyl Ketonuria
   b) Alkaptonuria
   c) Tyrosinosis
   d) Albinism

7) The anti-coagulant found in the body
   a) Potassium oxalate
   b) Sodium Citrate
   c) Heparin
   d) EDTA

8) Hemopexin carries
   a) Free hemoglobin
   b) Free heme
   c) Free bilirubin
   d) Free iron

9) Administration of diuretics cause loss of potassium which may lead to
   a) Metabolic acidosis
   b) Respiratory acidosis
   c) Respiratory alkalosis
   d) Metabolic alkalosis

10) Which of the following conditions will produce high anion gap acidosis?
   a) Diarrhea
   b) Renal tubular acidosis
   c) Renal failure
   d) Uretero sigmoidostomy

11) ECF volume does not change with
   a) ADH
   b) Aldosterone
   c) Calcitriol
   d) Renin

12) The cation with lowest intra cellular concentration
   a) Potassium
   b) Magnesium
   c) Sodium
   d) Calcium

13) Which contains iron
   a) Ceruloplasmin
   a) Xanthine oxidase
   b) Albumin
   c) Superoxide desmutase

14) Which enzyme do not contain copper?
   b) Cytochrome Oxidase
   c) Superoxide dismutase
   d) Xanthine oxidase
   e) Tyrosinase

Contd

15) The micro mineral present in teeth is
a) Calcium
b) Iodine
c) Fluorine
d) Manganese

16) Which of the following trace element has antioxidant role?
a) Chromium
b) Zinc
c) Selenium
d) Nickel

17) Sigma factor is
a) A sub unit of DNA polymerase
b) A sub unit of RNA polymerase
c) A sub unit of 50 S ribosome
d) responsible for initiation of replication

18) Intron is portion of
a) DNA that is cleaved of during replication
b) mRNA that is removed after transcription
c) tRNA that is added on after its synthesis
d) Protein removed after translation

19) Which hormone does not act at the level of transcription
a) Cortisol
b) Calcitriol
c) Aldosterone
d) Calcitonin

20) M band in serum protein electrophoresis is seen in which condition?
a) Cirrhosis
b) Chronic infections
c) Multiple myeloma
d) Heavy chain disease

Anatomy paper 2

Q.P. CODE:502-A-CBME

DR. NTR UNIVERSITY OF HEALTH SCIENCES:AP:VIJAYAWADA-520 008
M.B.B.S. DEGREE EXAMINATION – JAN/FEB, 2022
FIRST M.B.B.S. EXAMINATION
HUMAN ANATOMY – PAPER-II
(Theory Questions)

Time : 2 Hours 40 Minutes Max. Marks: 80
Note: Answer all questions
Draw diagrammatic representation wherever necessary.

SECTION-II – (THEORY QUESTIONS - 80 MARKS)

ESSAY QUESTIONS: 2X15=30

1) Describe the knee joint under following
   a. Formation
   b. Ligaments
   c. Relations
   d. Applied anatomy
2) Describe the rectum under following
   a. Morphology
   b. Relations
   c. Blood supply
   d. Applied anatomy

SHORT ANSWER QUESTIONS: 10X5-50

3) Neural crest cells
4) Histology of pancreas
5) Great saphenous vein
6) Ischial tuberocity
7) Plural recesses
8) Intercostal nerve
9) Azygos vein
10) Histology of gall bladder
11) Medial malleolus
12) Openings of diaphragm

CBME

DR. NTR UNIVERSITY OF HEALTH SCIENCES:AP:VIJAYAWADA-520 008
M.B.B.S. DEGREE EXAMINATION – JAN/FEB, 2022
FIRST M.B.B.S. EXAMINATION
HUMAN ANATOMY – PAPER-II (Set B)
(Multiple Choice Questions)

Time : 20 minutes Max. Marks: 20
Note : Answer all questions

SECTION – I (MCQs- 20 MARKS) 1x20=20

1) Inferior parathyroid glands are developed from
   a) 2nd endodermal pouch
   b) 3rd endodermal pouch
   c) 4th endodermal pouch
   d) 1st endodermal pouch

2) Facial muscles are derived from
   a) 2nd pharyngeal arch
   b) 3rd pharyngeal arch
   c) 4th pharyngeal arch
   d) 1st pharyngeal arch

3) Serous demilunes are present in:
   a) Sub-mandibular salivary gland
   b) Exocrine part of the pancreas
   c) Gastric glands
   d) Parotid salivary gland

4) Lining epithelium of Trachea is
   a) Simple columnar without cilia
   b) Pseudostratified ciliated columnar
   c) Pseudostratified columnar without cilia
   d) Ciliated columnar

5) Cremaster muscle formed by the fibers of
   a) Internal oblique
   b) Transversus abdominis
   c) Rectus abdominis
   d) External oblique

6) Summit of the medial longitudinal arch of foot formed by
   a) Superior articular surface of body of the talus
   b) Navicular bone
   c) Cuboid bone
   d) Calcaneum at the level of subtalar joint

Con td ... 2

7) Muscle for unlocking the knee joint
   a) Soleus
   b) Plantaris
   c) Gastrocnemius
   d) Popliteus

8) Cutaneous supply of the cleft between 1st and 2nd toes by
   a) Superficial peroneal nerve
   b) Deep peroneal nerve
   c) Medial plantar nerve
   d) Lateral plantar nerve

9) Vertebral level of superior mesenteric artery
   a) L1
   b) L2
   c) L3
   d) L4

10) Fibromuscular band suspends and supports duodenojejunal flexure
   a) Ligament of berry
   b) Ligament of copper
   c) Ligament of Treitz
   d) Poupart's ligament

11) Vertebral level of epiploic foramen/ foramen of Winslow
   a) T12
   b) L2
   c) L4
   d) T10

12) Conjoint tendon is formed by the aponeurosis of
   a) Internal oblique and transversus abdominis
   b) Transversus abdominis and Rectus abdominis
   c) Transversus abdominis and External oblique
   d) External oblique and internal oblique

13) Arch of Azygos vein is related to the
   a) Medial surface of the left lung
   b) Apex of the right lung
   c) Apex of the left lung
   d) Medial surface of the right lung

14) Content of Septomarginal trabecula / Moderator band
   a) A V Node
   b) Right branch of A V bundle
   c) Purkinje fibers
   d) Bundle of His

15) Opening of the coronary venous sinus is guarded by
   a) Eustachian valve
   b) Thebesian valve
   c) Mitral valve
   d) Tricuspid valve

16) Most dependent part of the abdominal cavity in a supine posture is
   a) Paracolic gutter
   b) Right infracolic compartment
   c) Supra colic gutter
   d) Hepatorenal pouch

17) Average diameter of Ureter is
   a) 3 mm
   b) 5 mm
   c) 7 mm
   d) 9 mm

18) Genotype of Patau's syndrome is
   a) Trisomy of chromosome 16
   b) Trisomy of chromosome 18
   c) Trisomy of chromosome 21
   d) Trisomy of chromosome 13

19) As per the standard classification (Denver classification) X–Chromosome (Female sex chromosome) included in the following group
   a) Group – A
   b) Group – B
   c) Group – C
   d) Group – D

20) Well defined anatomic, functional and surgical sectors of the lung are define as
   a) Lobe
   b) Air sacule
   c) Bronchopulmonary segment
   d) Pulmonary unit