Send-Up Exam Paper of 2nd Year MBBS

PAPER

e Allowed 100 Minutes **Total Marks: 50**

1. A 50 yrs. old mother of six children with history of difficult labor, presented to gynae OPD with lower abdominal & back pain. On examination the doctor gave diagnosis of prolapse of uterus
   a) Discuss the supports of this organ (3.5)
   b) Enlist the coverings of the direct inguinal hernia, trace them to corresponding layers of anterior abdominal wall (1.5)
2. A 70-year-old male with long standing history of gastric ulcers presented with loss of appetite, extensive weight loss & upper abdominal pain. On endoscopy, a diagnosis of gastric carcinoma was made.
   a) Where can the tumor spread through the lymphatics? Explain the lymphatic drainage of stomach to support your answer (3.5)
   b) Give the boundaries of Epiploic foramen (1.5)
3. a) Draw and label the relations of right kidney. (3)
   b) Write down the arterial supply of pancreas. (2)
4. A patient came in OPD with history of chronic infection of middle ear. He complains of loss of taste sensation of anterior 2/3rd of tongue, hyperacusis & dryness of eyes;
   a) Which cranial nerve is involved & explain the anatomical basis of these symptoms. (3.5)
   b) Mention the attachment of pretracheal fascia and name the structures enclosed by it. (1.5)
5. a) Name the muscles responsible for intorsion of eyeball with their nerve supply. (2)
   b) Give the course & branches of Maxillary artery (3)
6. **A 60 years old female patient presented to emergency department with sudden weakness of left half of body. Her babinsiki sign is upgoing with brisk tendon reflexes.**
   a) Describe the tract involved in this lesion from origin till termination. (4)
   b) Name the nuclei of trigeminal nerve in the Brainstem (1)
7. a) Enumerate the main afferent cerebellar pathways. (2)
   a) Draw & label a section of Midbrain at the level of superior colliculus (3)
8. Compare & contrast with the help of diagram, the histological features of different types of Salivary glands. (5)
9. Give a detailed account of development of testis (5)
10. Give the embryogenesis of Metanephric kidney (5)

AZRA NAHEED MEDICAL COLLEGE LAHORE

PHYSIOLOGY DEPARTMENT
2ND YEAR MBBS 2021-2022

SEND UP EXAM

SEQs (SHORT EASSY TYPE QUESTIONS)
ATTEMPT ALL QUESTIONS. ALL QUESTIONS CARRY EQUAL MARKS.

DATED: 26.10.22

MARKS= 50
TIME = 2 hours

Q1. A) Name the different stages of swallowing. Explain the series of events which take place during pharyngeal stage of swallowing. (3)
B) What is "Gut Brain" What are its components? Compare & contrast the functions of its components? (2)

Q2A). In uncontrolled Diabetes mellitus Glucose begins to appear in urine. Draw a Graph to explain the mutual relationship between plasma glucose concentration& Glucose filtered Load, reabsorption or excretion of glucose. (3)
B). Define& give formula to calculate the Tubular load. (1)
C). Define renal threshold & Transport maximum, give their values for Glucose reabsorption. (1)

Q3. A) Describe the role of distal convoluted tubules and collecting ducts of kidney in regulating the ECF H+ ion concentration. (3)
B) If the arterial blood sample reveals values of pH =7.3 Plasma HCO3 Conc =12mEq/L, & Plasma PCO_2 = 25mmHg. what will be your diagnosis, explain? (2)

Q4. A) Draw & explain the different phases of endometrial cycle along with the hormonal changes. (2)
B) A young female who was married 4 years back but still had no child, she told to doctor that her menstrual cycles are normal, the doctor is suspecting absence of ovulation. In your opinion.
i) What methods will be advised by the doctor to check whether she is having ovulatory cycles? (1)
ii) Give brief account of LH surge. (1)
C) Define blood Testicular Barrier & give its functions. (1)

Q5. A) Child was trying to open the 5-cc disposable syringe, suddenly needle was stuck into his skin, he immediately felt sharp pain followed by dull pain sensation. Trace the complete pathway from skin to cerebral cortex, of these two types of pain sensations. (3)
B). Define analgesia system & mention its components. (2)

Q6. A) Draw Pyramidal tract pathway & enumerate its functions. (2
B) Write down the Motor areas of cerebral cortex. (1
C) Compare & contrast the features of Upper Motor Neuron and Lower Motor Neuron lesion. (2

Q7A). 40 years old patient came to physician. On questioning patient told he sleeps 6- 8 hours but is not restful sleep. EEG showed mostly Beta waves in abundance.
i) Which type of sleep is indicated by EEG tracing? (1
ii) What change in EEG will be observed during different stages of Sleep? (1
B) Enlist different types of EEG waves with their characteristics. (

Q8. A) Describe all types of error of refraction along with correction of each.
B) Define Accommodation. Discuss neural pathway of "Accommodation reflex".

Q9. A) Write down the steps in synthesis of thyroid hormone.
B) Briefly mention the pathophysiology and important features of Graves' disease.
C) Compare the dwarfism due to hypopituitarism with that due to cretinism.

Q10. A middle age person is taking Glucocorticoids for the last two years for rheumatoid arthritis. now he has Developed hypertension, Hyperglycemia &he is having moon shaped face, buffalo torso, Central obesity
i) Name the condition he is suffering from?
ii) Give the physiological basis of developing Hyperglycemia & Hypertension in this condition.
iii) Give the actions of Glucocorticoids on protein metabolism in different tissues of body.
B) Compare & Contrast the pituitary D;M with pancreatic & adrenal D;M.

SUPERIOR UNIVERSITY

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2nd PROFESSIONAL MBBS

ANNUAL EXAMINATION 2022

Anatomy

(SEQ's)

Time Allowed: 2HOURS

Roll No. _____

Total Marks: 45

Instructions

1. Attempt all questions.
2. All question carry equal marks.
3. The SEQ's part is to be submitted within 2 hours, Extra time will not be given.
4. Neat Handwriting use of margin and marker for headlines will increase the presentation of your paper.
5. Do not write your name or disclose your identity in anyway.

Q1.

a) Compare the histology of exocrine part of pancreas with that of parotid gland with the help of a diagram. 3

b) Give histological features of a renal corpuscle. 2

Q2.

a) Write changes in position and blood supply of kidney during development. 2

b) What are indifferent gonads? Which factor is responsible for their differentiation? 1.5

c) Enumerate structures derived from genital ducts in a male baby. 1.5

Q3.

a) Name the four embryonic sources of thoraco-abdominal diaphragm with the part of diaphragm formed from them. What is embryological basis of congenital diaphragmatic hernia? 3+1

b) Enlist the derivatives of third pharyngeal arch 1

Q4. Draw & label transverse section of spinal cord at the mid-cervical level showing the general arrangement of the ascending & descending tracts. 5

Q5. A 40-year-old man presented in emergency department with severe epigastric pain, vomiting and abdominal distension, and signs of peritonitis were demonstrable. On laparotomy perforation was found on the first part of duodenum.

a) What structures are closely related to superior part of duodenum that can be eroded in this condition? 1

b) Mention the principal relations of second part of duodenum. 3

c) Name the peritoneal recesses of duodenum. 1

Q6. A gynecologist gives an anesthesia to the patient while performing normal vaginal delivery to relieve perineal pain.

a) Give the origin, branches and distribution of the nerve to be anaesthetized. 3

b) write boundaries of ischioanal (ischiorectal) fossa? 2

Q7.

a) Give the boundaries and communications of fourth ventricle. 4

b) Define hydrocephalus. Give its types. 1

Q8. A 50-year-old overweight woman came to the doctor complaining of hoarseness of voice and noisy breathing. She also had an irregular mass in the anterior aspect of lower part of neck, which deviated trachea to the right.

a) What is the diagnosis? Name the structure involved & cause of hoarseness of voice. 1+1.5

b) Write the blood supply of structure. 2.5

Q9. Following surgery for cancer of submandibular gland, an old male presented with loss of general sensations in anterior part of tongue.

a) Give the nerve supply of tongue. 3

b) With the help of a diagram show the cutaneous nerves of face. 2

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2nd PROFESSIONAL MBBS

ANNUAL EXAMINATION 2022

PHYSIOLOGY

(SEQ's)

Roll No. [redacted]

Time Allowed: 2 hours

Total Marks: 45

Instructions

1. The SEQ's part is to be submitted within 2 hours, Extra time will not be given.
2. Neat Hand Writing use of margin and marker for headlines will increase the presentation of your paper.
3. Do not write your name or disclose your identity in anyway.

Q1. .A young boy came to doctor with complaint of pain associated with eating .the pain become worse on empty stomach & is relieved by taking food.On examination the patient reports tenderness to deep palpation.
On investigation gastrin secreting tumor is diagnosed, as gastrin level is found to be increased. Endoscopy reveals ulcerated lesion in the fundus & antrum.

A) What cells are stimulated to secrete gastrin ? (1)
B) What are functions of Gastrin? (1.5)
C) How HCL is secreted by gastric cells? (2.5)

Q2. A) Draw & label the glomerular capillary membrane. (1)
B) Define GFR & give formula & also Calculate the Net filtration pressure. (2)
C) Describe Tubuloglomerular feedback mechanism for regulating GFR (2)

Q3. A) Write down the different phases of endometrial cycle along with the hormonal Changes. (3)
B) Give comparison between functions of estrogen & progesterone. (2)

Q4. A) A middle aged male presented to medical outdoor with lancinating pain on one side of face. It sets off when he swallows bolus of food .On examination there is sensory Loss over the fore head.
i) What is the diagnosis & cause of this condition? (2)
B) Describe dual pain pathway along with the pain receptor and nerve fiber involved. (3)

Q5. A) Compare &Contrast the features of Upper motor neurons & Lower motor neuron Lesion. (2.5)
B) Draw Pyramidal tract & Enumerate its functions. (2.5)

Q6. A) Write down the physiological division of cerebellum, along with their functions (2.5)
B) Compare the dwarfism due to hypopituitarism with that due to cretinism. (2.5)

Q7. A) Discuss important speech center in brain & describe their functions. (3)
B) Salma 20 years old has speech problem, she can read out & utter the read words but unable to understand the meaning of read words (2)
i) What type of speech abnormality she is having?
ii) Which speech area is damaged?

Q8. A) Bomb blast occurred in the vicinity of house, woman present in home started feeling that her hearing is slightly affected, but complete examination revealed no auditory damage, what is the mechanism which protect the ear from damage to loud sound? (3)
B) What is deafness, give types & causes of deafness? (2)

Q9. A) Enumerate all the physiological functions & describe Carbohydrate metabolism of Growth Hormone (2)
B). A middle aged person came to OPD with the complaints of Lower Jaw protruding out. & his hand and feet size was increased than the normal. On examination Liver was enlarged. Fasting blood sugar level was high (.more than 120mg%)
i) What is most probable diagnosis? (2)
ii) What is Pathophysiology of disease? (1)

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1st PROFESSIONAL MBBS

2nd ANNUAL EXAMINATION 2022

Biochemistry

(SEQ's)

Roll No. MBBS [redacted]

Time Allowed: 2 Hours

Total Marks: 37.5

Instructions

1. Attempt all questions
2. All question carry equal marks.
3. The SEQ's part is to be submitted within 2 hours, Extra time will not be given.
4. Neat Handwriting use of margin and marker for headlines will increase the presentation of your paper.
5. Do not write your name or disclose your identity in anyway.

QUESTION 1

a. Give chemistry and important functions of phosphatidylinositol. 2

b. What are trans-fats? Give their sources and health effects. 1.5

c. Define eicosanoids and give examples? What are they derived from? 2

QUESTION 2

a. Define disaccharides. Give three examples with their component sugars and glycosidic linkage? 3.5

b. A 33-year-old man developed flatulence, diarrhea, abdominal distension and bloating after eating a large bowl of ice-cream. He has experienced similar episodes previously after taking dairy products. What is the probable diagnosis? Give the biochemical reasons for his symptoms. How can this condition be treated? 2

QUESTION 3

a. An 89-year-old man presented with increasing forgetfulness and loss of memory. He was suspected of having Alzheimer's disease. State the biochemical mechanisms related to protein structure and function that may lead to Alzheimer's disease. 3

b. Give the principle biologic function of haptoglobin. What is the biochemical explanation for low plasma levels of haptoglobin seen in patients with hemolytic anemias? 2.5

QUESTION 4

a. Give the clinical significance of determination of plasma activities of the following enzymes:

i. Aspartate Aminotransferase (AST)
ii. Acid Phosphatase
iii. α-Amylase
iv. γ-glutamyl Transpeptidase (γGT)
v. Alkaline Phosphatase (ALP)
vi. Aldolase

3

b. How does covalent modification of enzyme molecules influence the enzyme activity? Explain with examples. 2.5

P.T

QUESTION 5

a. A patient with severe chronic liver disease developed semi-comatose state due to hyperammonemia. His gut was kept sterilized by the use of none-absorbable antibiotics to eliminate ammonia production by intestinal microbiota. His level of consciousness improved over time but his bleeding time became prolonged.

i. Which vitamin is likely to have become deficient and why?

ii. Why was the bleeding time prolonged? Give the mechanism for the biochemical action of the deficient vitamin. 2

b. Give the sources and biochemical functions of the following minerals:

i. Calcium

ii. Zinc 2

c. Outline the biochemical mechanism for development of peripheral neuropathy caused by vitamin B12 deficiency. 1.5

QUESTION 6.

a. Describe the structure of adult hemoglobin. Differentiate between hemoglobin S, hemoglobin C and hemoglobin SC diseases. 2.5

b. Give the salient features of the different structural forms of DNA? How can the two DNA strands be separated? Define melting temperature of DNA. 2.5

QUESTION 7

a. Tabulate clinical and biochemical differences between Marasmus and Kwashiorkor. 3

b. Write down Henderson-Hasselbalch equation and list its applications. 2

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2nd PROFESSIONAL MBBS
ANNUAL EXAMINATION 2022
Biochemistry
(SEQ's)

Time Allowed: 2HOURS

Roll No. _____

Total Marks: 37.5

Instructions

1. Attempt all questions.
2. All question carry equal marks.
3. The SEQ's part is to be submitted within 2 hours, Extra time will not be given.
4. Neat Handwriting use of margin and marker for headlines will increase the presentation of your paper.
5. Do not write your name or disclose your identity in anyway.

Q1.

a) Enumerate the proteases present in various GIT juices along with respective source organs. 3

b) Name the inhibitors of oxidative phosphorylation. 2.5

Q2.

a) A six-year-old male child apparently normal at birth now shows spastic movement of limbs and mental retardation. Blood chemistry reveals elevated uric acid. History revealed that the child has compulsive urge to bite his lips and fingers.

i. What is the most likely diagnosis. 0.5
ii. Name the defective enzyme in this disease. 0.5
iii. Write down the reaction catalyzed by this enzyme. 2

b) Write five causes of respiratory acidosis. 2.5

Q3.

a) A three-year-old boy is presented with neurological disturbances, lactic acidosis and seizures. He was diagnosed as having pyruvate dehydrogenase complex deficiency.

i. How lactic acidosis occurs in this metabolic defect. 1.5
ii. Why neurological disturbances occur. 1.5

b) Explain essential fructosuria and hereditary fructose intolerance. 2.5

Q4.

a) Write extra mitochondrial steps of urea synthesis. 3

b) Explain maple syrup urine disease. 2.5

Q5.

a) How long chain fatty acids are transported in the mitochondria? 3

b) Enlist ketone bodies. Which one of them gives fruity smell to breath in patients with diabetic ketoacidosis. 2.5

Q6.

a) A 48-year-old man diagnosed as xeroderma pigmentosum. 3

i. What is the mode of inheritance

ii. Name the deficient enzyme.

iii. Name the biochemical lesions resulting due to ultraviolet rays.

b) Define the term 'Restriction Site' and 'Recombinant DNA Molecules'. 2

Q7.

a) How hormones of adrenal medulla are synthesized. 3

b) What is VMA and its diagnostic value 2

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2nd Year MBBS

ANNUAL EXAMINATION 2021

ISLAMIC / PAK STUDIES

Time Allowed: 3 hours

Total Marks: 100

Instructions

1. The SEQ's part is to be submitted within 3 hours, Extra time will not be given.
2. Neat Hand Writing use of margin and marker for headlines will increase the presentation of your paper.
3. Do not write your name or disclose your identity in anyway.

Islamic Studies

Note: Attempt the following questions. **60**

Q.1- Write down the qualities of believers with reference of surah Al-Muminoon. 15

سورۃ المومنون کی روشنی میں مومنین کی صفات بیان کریں۔

Q.2- Write a detail note on "Uswa-e-Husna" in the light of surah Ahzab (Verse 21) 15

اُسوہ حُسنہ پر تفصیل سے روشنی ڈالیں۔

Q.3 Write down the social etiquettes in the light of surah Al-Hujrat. 15

سورۃ الحجرات کی روشنی معاشرتی آداب بیان کریں۔

Q.4- Write a detail note on the concept of Halal and Haram. Also write why Riba is prohibited in Islam? 15

تصور حلال اور حرام پر نوٹ لکھیں۔ سود کو اسلام میں کیوں حرام کیا گیا۔

Pak Studies

Note: Attempt any two questions. All questions carry equal marks. **40**

Q.1- Write a detail note on Early problems of Pakistan.

پاکستان کی ابتدائی مُشکلات پر نوٹ لکھیں۔

Q.2- What is the importance of constitution for a country. Write down few lines on constitutional history of Pakistan. And also write down the Islamic provisions' of 1973 constitution.

آئین کی کیا اہمیت ہے۔ پاکستان کی آئینی تاریخ پر چند سطور تحریر کریں۔ 1973 کے آئین میں موجود اسلامی دفعات تحریر کریں۔

Q.3- Write down the concept of civilization. Also write down the detail note on Indus River civilization.