

BOWEN UNIVERSITY

COLLEGE OF HEALTH SCIENCES

FACULTY OF BASIC MEDICAL SCIENCES

DEPARTMENT OF ANATOMY

FIRST PROFESSIONAL MBBS EXAMINATION (RESIT) 2021/2022 SESSION 09/01/23

INSTRUCTIONS: ANSWER ALL QUESTIONS. PAPER II (ESSAY) TIME: 3 HOURS

ANSWER QUESTIONS AS GROUPED PER BOOKLET: A=1, 2; B=3, 4, and 5; C=6,7 and 8; D=9 and 10; E=11 and 12

1. a. With the aid of a table classify epithelium 6 marks
b. Give examples where they can be found 4 marks
2. A young woman with an 8-week-old pregnancy presents with light vaginal bleeding, severe right lower abdominal pain, pain in the tip of the shoulder and discomfort when micturating or defecating. Discuss the possible embryological basis of the symptoms 10 marks
3. In a tabular form with an outstanding criteria, state differences between the right and left main bronchi 10 marks
4. a. What is Erb's point? 10 marks
b. Describe Erb's paralysis under the following headings: 2 marks
 - i. Site of lesion
 - ii. Cause
 - iii. Position of the upper limb
 - iv. Motor loss
 - v. Sensory loss
5. Write short note on the superficial venous drainage of the lower limb add a note on its clinical anatomy 8 marks 10 marks
6. Write short essay on the histology of the following:
 - a. Dermatoglyphics 3 marks
 - b. Epidermis of the human skin 3 marks
 - c. Two classes of sweat glands 4 marks
7. During the medicals of a 16-year old young athlete into a football academy, an ECG showed inverted or reversed electrical waves. X-ray was then taken and a transposed heart with mirrored vessels was observed:
 - a. What is this condition called? 2 marks
 - b. What is/are the cause(s) of this condition? 6 marks
 - c. Name a situation that can complicate this condition 2 marks
8. Ectopic testes occurrences are quite rare; however, they occur. With your knowledge of embryology:
 - a. What is the commonest cause of ectopic testes? 2 marks
 - b. Mention FOUR (4) various abnormal locations testes could lodge in 4marks
 - c. Which of the abnormal locations occurs most frequently? 2 marks
 - d. What is the difference between ectopic testis and cryptorchidism? 2 marks

9. A 3-year-old girl was rushed to emergency paediatrics unit on account of excessive cry and irritability. The doctor find out that she was pale, icteric and has hand and foot swelling.
- What genetic disorder is this? 1mark
 - Outline the molecular basis of this disorder 4 marks
 - Using punnett's square only, show how it can be inherited 4marks
 - The hand and foot swelling is called what? 1mark
10. Baby XYZ was 4 years old when he developed fever and painful swellings just inferior to his auricles. The doctor advised his parents to allow him take a break from school so as not to infect his peers; as well as take his medications as prescribed so the infection doesn't spread to his reproductive organs.
- Name the anatomical structure that is swollen [1MK]
 - What is your diagnosis? [2MKS]
 - Are there structures at risk of being compressed within the swollen organ? [1MK]
 - List the structures in (c) above [6MKS]
11. a. Describe the muscles of the anterior abdominal wall 5marks
 b. Differentiate between the male and female pelvis 5marks
12. With the aid of annotated diagram(s) describe the sequelae of disruption of various point of the visual pathway 10marks

BOWEN UNIVERSITY
COLLEGE OF HEALTH SCIENCES
FACULTY OF BASIC MEDICAL SCIENCES
DEPARTMENT OF ANATOMY

FIRST PROFESSIONAL MBBS EXAMINATION 2021/2022 SESSION 17/10/2022
INSTRUCTIONS: ANSWER ALL QUESTIONS. PAPER II (ESSAY) TIME: 3 HOURS
**ANSWER QUESTIONS AS GROUPED PER BOOKLET: A=1, 2; B=3, 4, and 5; C=6,7 and 8;
D=9 and 10; E=11 and 12**

1. With the AID of a well labelled diagram describe the loose areolar connective tissue. (Highlight the cells, fibers and ground substance)10 marks
2. A young woman with an 8-week-old pregnancy presents with light vaginal bleeding, severe right lower abdominal pain, pain in the tip of the shoulder and discomfort when micturating or defecating. Discuss the possible embryological basis of the symptoms 10 marks
3. In a tabular form with an outstanding criteria, state differences between the right and left main bronchi 10 marks
4. a. What is Erb's point? 2 marks
b. Describe Erb's paralysis under the following headings
i. Site of lesion
ii. Cause
iii. Position of the upper limb
iv. Motor loss
v. Sensory loss 8 marks
5. Write short note on the superficial venous drainage of the lower limb add a note on its clinical anatomy 10 marks
6. Write short essay on the histology of the following:
 - a. Dermatoglyphics 3 marks
 - b. Epidermis of the human skin 3 marks
 - c. Two classes of sweat glands 4 marks
7. During the medicals of a 16-year old young athlete into a football academy, an ECG showed inverted or reversed electrical waves. X-ray was then taken and a transposed heart with mirrored vessels was observed:
 - a. What is this condition called? 2 marks
 - b. What is/are the cause(s) of this condition? 6 marks
 - c. Name a situation that can complicate this condition 2 marks
8. Ectopic testes occurrences are quite rare; however, they occur. With your knowledge of embryology:
 - a. What is the commonest cause of ectopic testes? 2 marks
 - b. Mention FOUR (4) various abnormal locations testes could lodge in 4marks
 - c. Which of the abnormal locations occurs most frequently? 2 marks
 - d. What is the difference between ectopic testis and cryptorchidism? 2 marks

9. A 3-year-old girl was rushed to emergency paediatrics unit on account of excessive cry and irritability. The doctor find out that she was pale, icteric and has hand and foot swelling.
- What genetic disorder is this? 1mark
 - Outline the molecular basis of this disorder 4 marks
 - Using punnett's square only, show how it can be inherited 4marks
 - The hand and foot swelling is called what? 1mark
10. Pastor Zee a gospel musician presented to the hospital because he could not blow saxophone again and could not close his eyes while praying. The doctor ordered for contrasts Magnetic Resonance Imaging (MRI) of the skull/CNS and CNS Polymerase Chain Reaction (PCR)
- What is your differential diagnosis? 2marks
 - State the nerve implicated in your diagnosis 1mark
 - Sketch a well labeled diagram of the anatomical course of this nerve in the skull 2^{1/2}marks
 - List the branches of this nerve responsible for innervating the muscles of facial expression 2^{1/2}marks
 - Why did the doctor ordered for MRI and PCR? 2marks
11. b. Describe all the branches of arteries that supply the abdomen from the abdominal aorta, include annotated diagram. 7marks
- List the ligaments of the uterus 3marks
12. With the aid of annotated diagram(s) describe the sequelae of disruption of various point of the visual pathway 10marks

BOWEN UNIVERSITY
COLLEGE OF HEALTH SCIENCES
FACULTY OF BASIC MEDICAL SCIENCES
DEPARTMENT OF ANATOMY

FIRST PROFESSIONAL MBBS EXAMINATION 2020/2021 SESSION 15/11/2021
INSTRUCTIONS: ANSWER ALL QUESTIONS. PAPER II (ESSAY) TIME: 3 HOURS
**ANSWER QUESTIONS AS GROUPED PER BOOKLET: A=1, 2 and 3; B=4, 5 and 6; C=7;
D=8; E=9, 10 and 11 & F=12**

1. a. Name and explain the principal processes involved in bone formation. (5Marks)
b. What is the origin of the cells involved in fracture repair? (5Marks)

2. a. Write an essay on degeneration and regeneration of neurons (5 Marks)

b. Felix Denzel complained of inability to work properly with his right hand. He usually sways to the right side while walking. He could not do rapid pronation and supination of his right forearm. Magnetic resonance imaging showed a tumor in his right lobe of the cerebellum. Succinctly write on the histology of the part of the brain affected, highlighting the layers in it (5 Marks).

3. Describe the contribution of the Neural Crest Cells to the development of any two of the following systems (10 Marks)
 - i. Endocrine System
 - ii. Nervous System
 - iii. Connective Tissues
 - iv. Cardiovascular system

4. Using a diagram, discuss the axilla under the following headings:
 - i. Introduction (1 Mark)
 - ii. Boundaries (6 Marks)
 - iii. Contents (2 Marks)
 - iv. Clinical application (1 Mark)

5. Describe the venous drainage of the lower limb under the following headings:
 - i. Superficial, perforating and deep veins 4 marks
 - ii. Factors that help in venous return 4 marks
 - iii. Applied anatomy 2 marks

6. Write on maxillary artery and its branches. (10 Marks)

7. A 19-year-old boy was rushed to a surgical emergency unit on account of persistent, purposeless, painful, penile erection.
- The persistent penile turgidity is called what? (1 Mark)
 - Outline the molecular basis of this genetic disorder (3 Marks)
 - What is the underline genetic condition? (1 Mark)
 - State the pattern of inheritance (1 Mark)
 - Using punnett's square only, show how it can be inherited (4 Marks)
8. a) Differentiate a pluripotent and a totipotent cell (2 Marks)
b) Explain, adding relevant diagrams, the processes involved in gastrulation (8 Marks)
9. a. Briefly describe the anatomy of the thoracic cage (5 Marks)
b. Briefly discuss the anatomy of the lungs adding its applied anatomy (5 Marks)
10. Describe the gross anatomy of any one of the following
- Liver (10 Marks)
 - stomach
11. Discuss any one of the following
- Anatomic lobes of the prostate gland. Add a short note on the applied anatomy of the organ (10 Marks) **OR**
 - Female urogenital triangle (10 Marks)
12. Write short essays on all of the following
- Anatomical basis of clinical features of complete spinal transection at T₁₂ (5 Marks)
 - Relations of the Lateral ventricle of the brain (5 Marks)
 - Applied Anatomy of the visual pathway (5 Marks)
 - Features of transverse section of the midbrain at level of superior colliculus (5 Marks)

BOWEN UNIVERSITY

COLLEGE OF HEALTH SCIENCES

FACULTY OF BASIC MEDICAL SCIENCES

DEPARTMENT OF ANATOMY

FIRST PROFESSIONAL MBBS (RCSLT) EXAMINATION 2020/2021 SESSION 10/1/2021

INSTRUCTIONS ANSWER ALL QUESTIONS PAPER II (ESSAY) TIME: 2 HOURS

ANSWER QUESTIONS AS GROUPED PER BOOKLET: A-1; B-2, 3 and 4; C-5; D-6, 7 and 8; E-9 & F-10, 11 and 12

- Differentiate a pluripotent and a totipotent cell (2 marks)
 - Explain, adding relevant diagrams, the processes involved in Gastrulation (8 marks)
- Describe the contribution of the Neural Crest Cells to the development of any two of the following systems (10 Marks)
 - Endocrine System
 - Nervous System
 - Connective Tissues
 - Cardiovascular system
- Discuss the functions of the following cells (10 marks)
 - chondrocytes
 - osteoclasts
 - osteoblasts
- Write an essay on degeneration and regeneration of neurons (5 marks)
 - Felix Doezel complained of inability to work properly with his right hand. He usually sways to the right side while walking. He could not do rapid pronation and supination of his right forearm. Magnetic resonance imaging showed a tumor in his right lobe of the cerebellum. Succinctly write on the histology of the part of the brain affected, highlighting the layers in it (5 marks)
- A 19-year-old boy was rushed to a surgical emergency with an account of persistent, purposeless, painful, passive reaction.
 - The persistent passive rigidity is called what? (1 Mark)
 - Outline the molecular basis of this genetic disorder. (3 Marks)

- c) What is your diagnosis? (1 Mark)
- d) State the pattern of inheritance (1 Mark)
- e) Using Punnett's square only, show how it can be inherited (4 Marks)
6. a. Using a diagram, what is Erb's point? (3 marks)
- b. Describe Erb's paralysis under the following headings:
- Site of lesion (1 mark)
 - Cause (1mark)
 - Position of the upper limb (1mark)
 - Motor loss (3marks)
 - Sensory loss (1mark)
7. Describe the venous drainage of the lower limb under the following headings:
- Superficial, perforating and deep veins (4 marks)
 - Factors that help in venous return (4 marks)
 - Applied anatomy (2 marks)
8. Write on maxillary artery and its branches. (10 Marks)
9. Write short essays on all the following
- Anatomical basis of clinical features of complete spinal transection at T₁₂ (10 Marks)
 - Relations of the Lateral ventricle of the brain (10 Marks)
- OR**
- Applied Anatomy of the visual pathway (10 Marks)
 - Features of transverse section of the midbrain at level of superior colliculus (10 Marks)
10. a. Describe the anatomy of the diaphragm stating its clinical correlates (5 Marks)
- b. Describe the mediastinum (5 Marks)
11. Describe the gross Anatomy of the abdominal aorta (10 Marks)
12. Discuss any one of the following
- Anatomic lobes of the prostate gland. Add a short note on the applied anatomy of the organ. (10Marks)
- OR**
- Female urogenital triangle. (10 Marks)

BOWEN UNIVERSITY
COLLEGE OF HEALTH SCIENCES
FACULTY OF BASIC MEDICAL SCIENCES
DEPARTMENT OF ANATOMY

FIRST PROFESSIONAL MBBS (RESIT) EXAMINATION 2020/2021 SESSION 10/1/2022

INSTRUCTIONS: ANSWER ALL QUESTIONS. PAPER II (ESSAY) TIME: 3 HOURS

ANSWER QUESTIONS AS GROUPED PER BOOKLET: A=1; B=2, 3 and 4; C=5; D=6, 7 and 8; E=9 & F=10, 11 and 12

1. a) Differentiate a pluripotent and a totipotent cell (2marks)
b) Explain, adding relevant diagrams, the processes involved in

Gastrulation (8 marks)

2. Describe the contribution of the Neural Crest Cells to the development of any two of the following systems (10 Marks)

- i. Endocrine System
- ii. Nervous System
- iii. Connective Tissues
- iv. Cardiovascular system

3. Discuss the functions of the following cells: (10 marks)

- a. chondrocytes
- b. osteoclasts
- c. osteoblasts

4. a) Write an essay on degeneration and regeneration of neurons (5 marks)

- b) Felix Denzel complained of inability to work properly with his right hand. He usually sways to the right side while walking. He could not do rapid pronation and supination of his right forearm. Magnetic resonance imaging showed a tumor in his right lobe of the cerebellum.

Succinctly write on the histology of the part of the brain affected, highlighting the layers in it (5 marks)

5. A 19-year-old boy was rushed to a surgical emergency unit on account of persistent, purposeless, painful, penile erection.

- a) The persistent penile turgidity is called what? (1 Mark)

- b) Outline the molecular basis of this genetic disorder. (3 Marks)

- c) What is your diagnosis? (1 Mark)
- d) State the pattern of inheritance (1 Mark)
- e) Using Punnett's square only, show how it can be inherited (4 Marks)
6. a. Using a diagram, what is Erb's point? (3 marks)
- b. Describe Erb's paralysis under the following headings:
- Site of lesion (1 mark)
 - Cause (1mark)
 - Position of the upper limb (1mark)
 - Motor loss (3marks)
 - Sensory loss (1mark)
7. Describe the venous drainage of the lower limb under the following headings:
- Superficial, perforating and deep veins (4 marks)
 - Factors that help in venous return (4 marks)
 - Applied anatomy (2 marks)
8. Write on maxillary artery and its branches. (10 Marks)
9. Write short essays on all the following
- Anatomical basis of clinical features of complete spinal transection at T₁₂ (10 Marks)
 - Relations of the Lateral ventricle of the brain (10 Marks)
- OR**
- Applied Anatomy of the visual pathway (10 Marks)
 - Features of transverse section of the midbrain at level of superior colliculus (10 Marks)
10. a. Describe the anatomy of the diaphragm stating its clinical correlates (5 Marks)
- b. Describe the mediastinum (5 Marks)
11. Describe the gross Anatomy of the abdominal aorta (10 Marks)
12. Discuss any one of the following
- Anatomic lobes of the prostate gland. Add a short note on the applied anatomy of the organ. (10Marks)
- OR**
- Female urogenital triangle. (10 Marks)

BOWEN UNIVERSITY, IWO
COLLEGE OF HEALTH SCIENCES
FACULTY OF BASIC MEDICAL SCIENCES
DEPARTMENT OF ANATOMY
M.B., B.S. 1st Professional Examination (Resit)
2018/19 ACADEMIC SESSION
PAPER II ANATOMY

DATE: Monday, 28th January, 2018

TIME ALLOWED: 3 HRS

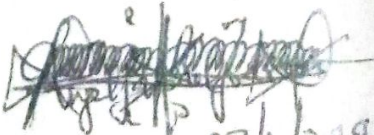
INSTRUCTIONS: Answer ALL questions in separate answer sheets. Well labeled diagrams (if and when required) will enhance your marks. Submit all examination materials at the Invigilators' Desk.


1. Write an essay on embryologic events that take place the week before a pregnant woman misses her period to begin to have suspicion of being pregnant (10 Marks)
2. Briefly describe (5 Marks)
 - i. Tympanic membrane (5 Marks)
 - ii. Infratemporal fossa
3. Describe the concept of multifactorial inheritance (10 Marks)
4. With a diagram, describe the neuroanatomy of the auditory pathway (15 Marks)
5. Describe the gross and clinical anatomy of the carpal tunnel (10 Marks)
6. Describe the generalised histology of the gastrointestinal tract (7 Marks)
 - b. Add a note on Auerbach's plexus (3 Marks)
7. Highlight bronchopulmonary segments and list its clinical correlates (10 Marks)
8. A C-section is scheduled for a 16 year old mother at 37 weeks. Prenatal care was not sought until 32 weeks gestation. Mother did not take any vitamins or folate supplements prior to that time. Initial prenatal lab studies were significant for an elevated alpha fetoprotein. A prenatal ultrasound done at 34 weeks, no hydrocephalus was noted at that time. A neurosurgeon was consulted. A C-section is scheduled to deliver the infant as non-traumatically as possible with the availability of the neurosurgeon close by. At delivery, the infant has a translucent membrane sac overlying the mid-lumbar region. It is leaking xanthochromic fluid. Upper extremity movement is noted to be good, but lower extremity movement is not as vigorous.
 - a. What is the condition called? (2 marks)
 - b. Discuss in details the formation of the neural tube (4 marks)
 - c. Clinical correlates (2 marks)
 - d. Derivatives of the neural crest cells (2 marks)
9. In a tabular form, write on the types and distribution of epithelial tissue (10 Marks)
10. Describe the sciatic nerve (10 marks)

BOWEN UNIVERSITY, IWO
COLLEGE OF HEALTH SCIENCES
DEPARTMENT OF ANATOMY
M.B., B.S. (1st Professional Examination)
2019/20 ACADEMIC SESSION
PAPER II ANATOMY

DATE: Wednesday, 27th NOVEMBER, 2019 **IPM** **TIME ALLOWED: 3 HRS**
INSTRUCTIONS: Answer ALL questions in separate answer sheets. Well labeled diagrams when required will enhance your marks. Submit all examination materials at the Invigilators' Desk.

1. Write an essay on dorsal thalamus and its importance (10 Marks)
2. a. Define chromosomal aberration (2 Marks)
b. List the types of chromosomal aberrations (8 Marks)
3. Discuss the development of the face (10 Marks)
4. Write an essay on the anatomy of the uterus under the following
 - a. Ligaments (2.5 Marks)
 - b. Relations (2.5 Marks)
 - c. Venous drainage (5 Marks)
 - d. Add a short note on pudendal nerve block (5 Marks)
5. Describe the origin, parts, course and branches of the artery located in the axilla (10 marks)
6. Describe the boundaries of the orbit
 - a. List the contents of the orbit (5 marks)
 - b. Enumerate the branches of the external carotid artery (10 marks)
7. Loliyah, a newborn has tetralogy of fallot.
 - a. Name the four cardiac associated abnormalities (2 Marks)
 - b. Describe the partitioning of the atrium (8 Marks)
8. Describe the anatomy of the hip joint under the following headings
 - i. Joint capsule (2 Marks)
 - ii. Extracapsular and intracapsular ligaments (2 Marks)
 - iii. Innervations (2 Marks)
 - iv. Bursae (2 Marks)
 - b. Add a note on the genitofemoral nerve (2 Marks).
9. a. Define epithelium (1 Marks) (3 Marks)
b. List 6 functions of epithelium (6 Marks)
c. Classify epithelial tissue with examples
10. Describe the respiratory epithelium 10 Marks
11. a. List sequentially 10 events that happen during the 1st week (5 Marks)
b. Define "assisted reproductive technology procedure" (2.5 Marks)
c. List the natural consequences of fertilization (2.5 Marks)
12. A serious condition that may lead to respiratory failure occurs when there is a bilateral damage of the phrenic nerves.
 - a. Name the condition (2 Marks)
 - b. Write a detailed gross anatomy of the structure implicated (8 Marks)


27/11/2019
12:30 PM



BOWEN UNIVERSITY, IWO
COLLEGE OF HEALTH SCIENCES
DEPARTMENT OF ANATOMY

1st PROFESSIONAL MBBS EXAMINATION MARCH, 2021
Paper II (Essay)

Time allowed: 3 Hours

Instruction: Answer ALL Questions

1. With aid of diagrams explain the structure-function concepts of the liver as an
 - a. Exocrine organ (3 Marks)
 - b. Endocrine organ (3 Marks)
 - c. Oxygen metabolizing organ (4 Marks)
2. a. Describe the distribution of the central branches of the circle of Willis (10 Marks)
b. Explain the anatomical bases of features seen in
 - i. Complete spinal cord transection (2.5 Marks)
 - ii. Brown-Sequard syndrome (2.5 Marks)
 - iii. Tabes dorsalis (2.5 Marks)
 - iv. Anterior cord syndrome (2.5 Marks)
3. Briefly describe the anatomy of the TRACHEA in relation to its:
 - a. Course (2 Marks)
 - b. Relations (3 Marks)
 - c. Blood supply (2 Marks)
 - d. Applied anatomy (3 Marks)
4. Discuss, the development of the respiratory system (10 marks)
5. Write an essay on gene therapy. (10mks)
6. Describe the lymphatic drainage of the lower limb (10 marks)
7. I. State 2 injuries each of the upper and lower trunks of the brachial plexus (5 marks)
II. Name the SITS muscles and their function (3 marks)
III. Mention the nerve supply to each (2 marks)
8. Write a detailed essay on the processes involved in the 1st week of embryonic development (10 Marks)
9. Kelechi a habitual gum chewer, developed jaw pain with sore jaw muscles. Radiographic examination shows the condyle of mandible slipped out of the glenoid fossa of temporal bone
 - i. Highlight the gross anatomy of the affected joint under these headings, articular surface, articular capsule, ligaments, movement, neurovasculature. (10Marks)
10. i. A patient underwent a liver biopsy procedure, highlight how you will carry out tissue preparation and tissue processing of the biopsied tissue. (5 marks)
ii. Outline the histology of blood-urine barrier and its clinical importance. (5 marks)
11. Using diagram, describe the regions of the anterior abdominal wall (3 Marks)
 - a. List the structures in the hypogastrium (4Marks)
 - b. Mention two (2) surgical incisions of the anterior abdominal wall (2 Marks)
 - c. Write on the gross anatomy of the Stomach (5 Marks)
12. a. Write on the gross anatomy of the uterus (4 Marks)
b. Describe pudendal nerve block (2 Marks)