



001/24

The West Bengal University of Health Sciences
MBBS 1st Professional Examination (New Regulation),
August 2024

Full Marks : 100

Time: 3 hours

Subject: Anatomy

Paper : I

Attempt all questions. The figures in the margin indicate full marks.

1. a) A 62 year old man complaining of shortness of breadth, syncopal attacks and fatigue was diagnosed to have severe mitral stenosis. Under these circumstances explain the following-
 - i) What are the components of the mitral valve complex? 3+4+4+4
 - ii) What are the different types of chordae tendineae? Draw a labelled diagram.
 - iii) What are the sources of development of the interventricular septum?
- b) An elderly man suffering from carcinoma of prostate diagnosed to have metastasis in the vertebra.
 - i) Justify the metastasis using your knowledge of anatomy.
 - ii) Discuss briefly the capsules, lobes and relations of the prostate gland.
 - iii) Discuss microanatomy of the prostate gland using suitable labelled diagram. 3+2+3+4+3
2. a) Classify multicellular glands according to the secretory mechanism with examples. Explain with diagram the difference between serous and mucous acinus. 5+5
- b) Describe the lumbrical muscles of the palm under the following heading:
 - i) Type of muscle.
 - ii) Attachments.
 - iii) Nerve supply.
 - iv) Action. 2+4+2+2
- c) Classify cartilage. Draw labelled diagrams of the different types of cartilages and give the characteristics of each of them. Give examples of each of them. 2+3+3+2
3. Write short notes on the following:
 - a) Folding of embryo.
 - b) Communication is a fundamental prerequisite in medical profession. 2x5
4. Explain the following statements:
 - a) Ovary experiences an incomplete journey during its descent.
 - b) Stab wounds at the root of the neck will lead to tension pneumothorax and surgical emphysema.
 - c) A palpable nodule in the axilla of an elderly lady should be properly cared.
 - d) Cervical rib may be associated with thoracic outlet syndrome.
 - e) Volkmann's ischemic contracture following supracondylar fracture of humerus. 5x4
5. Choose the correct option for each of the following:
 - i) The neurovascular plane of the anterior abdominal wall lies between which muscles/fasciae/membranes? 10x1
 - a) External oblique and internal oblique muscles.
 - b) Internal oblique and transversus abdominis muscles.
 - c) Transversus abdominis muscle and fascia transversalis.
 - d) Fascia transversalis and parietal peritoneum.

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- ii) All the following features are seen in the neurons of the dorsal root ganglia except:
- a) They are multipolar.
 - b) They contain lipofuscin granules.
 - c) They have centrally located nuclei.
 - d) They are derived from neural crest cells.
- iii) Which of the following is not a branch of the posterior cord of brachial plexus?
- a) Dorsal scapular nerve.
 - b) Upper subscapular nerve.
 - c) Lower subscapular nerve.
 - d) Axillary nerve.
- iv) A patient with external haemorrhoids develops pain while passing stool. The nerve mediating this pain is:
- a) Sympathetic plexus.
 - b) Hypogastric nerve.
 - c) Splanchnic visceral nerve.
 - d) Pudendal nerve.
- v) Fracture around the anatomical snuff box due to fall on outstretched hand involves distraction of
- a) Scaphoid - lunate.
 - b) Trapezoid - trapezium.
 - c) Scaphoid - trapezium.
 - d) Hamate - lunate.
- vi) False statement regarding cardinal veins is:
- a) The left posterior cardinal vein regresses entirely.
 - b) The right posterior cardinal vein regresses except for its cephalic part.
 - c) The cephalic part of the left posterior vein obliterates to form a fibrous thread within the fold of Marshall.
 - d) The caudal part of the right anterior cardinal vein forms the superior vena cava.
- vii) In case of perinephric abscess the fluid collects in:
- a) Between renal fascia and fascia transversalis.
 - b) Between renal capsule and renal fascia.
 - c) Between fascia transversalis and peritoneum.
 - d) Between renal cortex and renal capsule.
- viii) Regarding bronchial veins incorrect observation is:
- a) Superficial veins receive blood from pulmonary pleura.
 - b) Right superficial vein drains into arch of azygos vein.
 - c) Both superficial and deep veins drain into right atrium.
 - d) Deep bronchial veins drain into pulmonary vein.
- ix) Which two embryological structures together form the bilaminar disc?
- a) Cytotrophoblast and Hypoblast.
 - b) Hypoblast and Epiblast.
 - c) Epiblast and Cytotrophoblast.
 - d) Syncytiotrophoblast and Inner cell mass.
- x) Regarding rectus sheath and its contents the true statement is:
- a) The posterior wall of the rectus sheath is adherent to the rectus abdominis muscle.
 - b) During surgery the rectus abdominis is retracted laterally to expose the posterior wall of the sheath.
 - c) The lower part of the anterior lamella of the rectus sheath is thinner than the other parts.
 - d) The inferior epigastric artery enters the rectus sheath behind the arcuate line.