

MANIPAL UNIVERSITY

M.Sc. (MEDICAL) (PRELIMINARY) DEGREE EXAMINATION – MAY 2014

SUBJECT: PAPER I: ANATOMY

Monday, May 05, 2014

Time: 14:00 – 17:00 Hrs.

Maximum Marks: 80

- ✍ All questions are compulsory. Write brief, clear, relevant and legible answers.
✍ Illustrate your answers with diagrams and flow charts wherever appropriate.

1. Name the different parts of the female internal genital organs. Write briefly about the process of oogenesis and explain the formation of corpus luteum.
(3+3+4 = 10 marks)
2. Name the parts of the pharynx. Write briefly about the features of each of these parts.
(3+7 = 10 marks)
3. **Write short notes on:**
 - 3A. Parts of the thyroid gland and the arteries supplying it
 - 3B. List the contents of carotid triangle of the neck
 - 3C. Name the paranasal air sinuses. Where do they open in the lateral wall of the nasal cavity?
 - 3D. Pericardial sinuses
 - 3E. Interior of the right ventricle
 - 3F. Fissures and lobes of the lungs
 - 3G. Major openings of the diaphragm and the structures passing through it
 - 3H. Name the parts of the duodenum. Give its arterial supply
 - 3I. Name the sites of porto-caval anastomosis and mention its importance
 - 3J. Ureter
 - 3K. Testis
 - 3L. Karyotyping
 - 3M. Placenta
 - 3N. Microscopic structure of lymph node
 - 3O. Structure of synovial joint

(4 marks × 15 = 60 marks)



MANIPAL UNIVERSITY

M.Sc. (MEDICAL) (PRELIMINARY) DEGREE EXAMINATION – MAY 2014

PAPER II: PHYSIOLOGY

Wednesday, May 07, 2014

Time: 14:00 – 17:00 Hrs.

Maximum Marks: 80

✍ **Answer ALL the questions.**

✍ **Illustrate your answers with neatly drawn and correctly labeled diagrams wherever appropriate.**

1. Define shock. List the different types giving the cause for each. Explain the pathophysiology and treatment of any one. (1+4+5 = 10 marks)

2. Explain the origin, course and termination of corticospinal tract with the help of a diagram. List five differences between upper motor neuron and lower motor neuron lesion. (5+5 = 10 marks)

3. **Short answer questions.**
 - 3A. List the different types of transport across cell membrane. Explain with example any one. (2+2 = 4 marks)
 - 3B. Enumerate the major changes taking place during erythropoiesis. (4 marks)
 - 3C. ABO blood group system is based on which law? Define and explain it. (4 marks)
 - 3D. Explain the role of ATP in muscle contraction. (4 marks)
 - 3E. Draw and explain the different stages of monophasic action potential. (4 marks)
 - 3F. Source, composition and functions of surfactant. (1+3 = 4 marks)
 - 3G. Give the cause and physiological basis for the different features for dysbarism. (4 marks)
 - 3H. Explain the second phase of deglutition. (4 marks)
 - 3I. Digestion and absorption of fats. (2+2 = 4 marks)
 - 3J. Define GFR and give the normal value. List the factors affecting GFR. (2+2 = 4 marks)
 - 3K. Draw a cystometrogram and explain the different phases. (2+2 = 4 marks)
 - 3L. Give the cause and physiological basis for the different features for gigantism. (4 marks)
 - 3M. Explain the immunological test for pregnancy. (4 marks)
 - 3N. Functions of sertoli cells (4 marks)
 - 3O. Tests for hearing (4 marks)

