

Reg. No.

## MANIPAL UNIVERSITY

M.Sc. MEDICAL (FINAL) ANATOMY DEGREE EXAMINATION – FEBRUARY 2013  
PAPER I: GROSS ANATOMY, APPLIED ANATOMY AND MORPHOLOGY

Tuesday, February 05, 2013

Time: 14:00 – 17:00 Hrs.

Maximum Marks: 100

- ✍ Answer ALL the questions.
- ✍ Illustrate your answers with neatly drawn and correctly labeled diagrams wherever necessary.

1. Describe a typical intercostal nerve and its applied aspects. (25 marks)

2. Describe the supports of uterus and its applied aspects. (25 marks)

3. Describe the parotid gland. Discuss its applied aspects. (25 marks)

4. Write short notes on:

4A. Perineal membrane

4B. Lymphatic drainage of the breast

4C. Rima glottidis

4D. Azygos vein

4E. Subtalar joint

(5×5 = 25 marks)



**MANIPAL UNIVERSITY****M.Sc. MEDICAL (FINAL) ANATOMY DEGREE EXAMINATION – FEBRUARY 2013**  
**PAPER II: EMBRYOLOGY, HISTOLOGY AND GENETICS**

Wednesday, February 06, 2013

Time: 14:00 – 17:00 Hrs.

Maximum Marks: 100

- ✍ **Answer ALL the questions.**
- ✍ **Illustrate your answers with neatly drawn and correctly labeled diagrams wherever necessary.**

1. Describe the process of gastrulation. List the tissues and organs derived from each of the germ layers.  
(25 marks)
2. List the derivatives of the midgut and describe with the aid of simple diagrams, herniation, rotation, reduction and fixation of the gut.  
(25 marks)
3. Describe the microscopic anatomy of the kidney. Add a note on the structure and function of the Juxta glomerular apparatus.  
(25 marks)
4. **Write short notes on:**
  - 4A. Structural alterations of chromosomes
  - 4B. Down's syndrome
  - 4C. Dominant genes
  - 4D. Synapse
  - 4E. Mitochondria

(5×5 = 25 marks)



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## MANIPAL UNIVERSITY

### M.Sc. MEDICAL (FINAL) ANATOMY DEGREE EXAMINATION – FEBRUARY 2013 PAPER III: NEUROANATOMY AND RECENT ADVANCES

Thursday, February 07, 2013

Time: 14:00 – 17:00 Hrs.

Maximum Marks: 100

✍ **Answer ALL the questions.**

1. Describe the anatomy, connections and functions of basal ganglia. (25 marks)
2. Describe the fourth ventricle of brain and give its applied anatomy. (25 marks)
3. Describe the facial nerve and its applied aspects. (25 marks)
4. **Write short notes on:**
  - 4A. Corpus callosum
  - 4B. Nuclei of cerebellum
  - 4C. Magnetic resonance imaging
  - 4D. Spinothalamic tracts
  - 4E. Lumbar puncture

(5×5 = 25 marks)

