

**MANIPAL ACADEMY OF HIGHER EDUCATION**  
(Deemed University)

**MSc (FINAL) PHYSIOLOGY DEGREE EXAMINATION – DECEMBER 2001**

**PAPER I : GENERAL PHYSIOLOGY, NERVOUS SYSTEM INCLUDING SPECIAL SENSES AND MUSCLES**  
Monday, December 03, 2001

**Time available: 3 Hours**

**Maximum Marks: 100**

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- **Answer all the questions.**
  - **All questions carry equal marks.**
  - **Illustrate your answers with neatly drawn and correctly labelled diagrams wherever appropriate.**
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1. Discuss the physiology of speech. Add a note on aphasia.  
(20 Marks)
  
2. Describe the organization, function and mode of actions of the sympathetic system.  
(20 Marks)
  
3. Describe the methods of localization of cerebral cortical function with relevant examples.  
(20 Marks)
  
- 4A. Write briefly on degeneration and degeneration in motor nerve axon.
- 4B. Describe the functions middle ear.  
(10+10=20 Marks)
  
- 5A. Write briefly on mechanisms of color vision.
- 5B. Trace olfactory pathway.  
(10+10=20 Marks)

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## MSc (FINAL) PHYSIOLOGY DEGREE EXAMINATION – DECEMBER 2001

PAPER II : CARDIOVASCULAR SYSTEM, RESPIRATORY SYSTEM, RENAL PHYSIOLOGY AND BLOOD

Tuesday, December 04, 2001

**Time available: 3 Hours**

**Maximum Marks: 100**

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- Answer all the questions.
  - All questions carry equal marks.
  - Illustrate your answers with neatly drawn and correctly labelled diagrams wherever appropriate.
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1. Discuss the tests for assessing pulmonary functions with examples.
2. Discuss the short term regulation of blood pressure.
3. Describe the role of countercurrent mechanism in the formation of concentrated and dilute urine.
- 4A. What are the differences between laminar and turbulent flow?
- 4B. Explain how the body temperature is maintained by regulating evaporation?
5. How is lymph formed? What is oedema? Discuss the physiological basis of oedema in detail.

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**MSc (FINAL) PHYSIOLOGY DEGREE EXAMINATION – DECEMBER 2001**

**PAPER III : GASTROINTESTINAL TRACT, ENDOCRINOLOGY AND REPRODUCTION**

Wednesday, December 05, 2001

**Time available: 3 Hours**

**Maximum Marks: 100**

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- **Answer all the questions.**
  - **All questions carry equal marks.**
  - **Illustrate your answers with neatly drawn and correctly labelled diagrams wherever appropriate.**
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1. Name the different kind of hormone receptors. With suitable examples discuss the mechanism of actions of various hormones through them.  
(20 Marks)
2. Discuss the various types of G.I. tract movements. Add a note on vomiting.  
(20 Marks)
- 3A. Briefly describe the oogenesis and discuss how ovulation occurs.  
3B. Briefly discuss the hormones secreted by placenta and their significance.  
(10 +10 =20 Marks)
- 4A. Discuss the release and regulation of posterior pituitary hormones.  
4B. Briefly discuss the hypophyseal tropic hormones.  
(10+10 = 20 marks)
5. Discuss the hormones secreted by the testes with their actions. Add a notes on cryptorchidism.  
(20 marks)