

**Q.P Code**

**Reg. No.**

**PG Degree Regular/Supplementary Examinations in Physiology (M.D)**

**PAPER III – Systemic Physiology (system concerned with regulation,  
neural control and procreation)**

**Time: Three Hours**

**Maximum: 100 Marks**

**Essay: (20)**

1. Discuss the various postural reflexes. Add a note on vestibular function tests.

**Short Essays**

**(8 x10 = 80)**

2. Assisted reproductive technology
3. Corpus callosum
4. Neural transduction of images during day and night
5. Calcium homeostasis
6. Physiological basis of memory and dementia
7. Cochlear microphonic potentials
8. A 35 year old man consulted an ophthalmologist for blurred vision and headache. On examination, conjugate eye movements and pupillary reflexes were normal. There was mild diplopia, no cataract. Ophthalmoscopy examination was normal. Visual field shows bi temporal homonymous hemianopia.
  - a) What is the clinical condition?
  - b) Explain the physiological basis of the symptoms.
  - c) What is the significance of endocrine evaluation?
  - d) The field defect was not complained about by the patient. Why?
9. A 6year old boy was evaluated for his short stature much below the average for his age. History was ruled out for head trauma, chronic illness, malnutrition and family history. Thyroid hormones and insulin levels are normal.
  - a) Mention one important hormone that is to be ruled out for the short stature
  - b) What is Growth hormone resistance and what is its significance?
  - c) Discuss the importance of the factors ruled out in the history in relation to Growth