

[KM 126]

Sub. Code : 2024

M.D. DEGREE EXAMINATION.

(Revised Regulations)

Branch V — Physiology

Paper IV — HISTORY OF MEDICINE, RECENT  
ADVANCES IN CLINICAL PHYSIOLOGY,  
ENDOCRINOLOGY AND REPRODUCTIVE SYSTEMS

Time : Three hours                      Maximum : 100 marks

Theory : Two hours and                      Theory : 80 marks  
forty minutes

M.C.Q. : Twenty minutes                      M.C.Q. : 20 marks

Answer ALL questions.

Draw suitable diagrams wherever necessary.

I. Essay :    (2 × 15 = 30)

(1) Describe the historical developments in the understanding of cardiovascular physiology.

(2) Describe the physiological role of the pineal gland.

II. Write short notes on :    (10 × 5 = 50)

- (a) Chromosomal aberrations
- (b) Somatostatin.
- (c) Alzheimer's disease.
- (d) Obesity : types, causes.
- (e) Pathophysiology of :
  - (i) Cushing's disease
  - (ii) Adrenogenital syndrome .
- (f) Defibrillators.
- (g) Mechanism of ADH action.
- (h) Thermoregulation in newborns.
- (i) Trophoblastic functions.
- (j) Galactopoiesis.

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II. Write Short notes on :

(6 × 5 = 30)

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Time : Three hours                      Maximum : 100 marks

Theory : Two hours and                      Theory : 80 marks  
forty minutes

M.C.Q. : Twenty minutes                      M.C.Q. : 20 marks

Answer ALL questions.

Draw suitable diagrams wherever necessary.

I. Essay :

(1) Discuss the contribution of following  
physiologists,

- (a) Sherrington.
- (b) Einthoven.
- (c) Banting and Best.                      (20)

(2) Describe the endocrine basis of lactation and  
suppression of lactation.                      (15)

(3) Discuss about physiological dysjunction  
arising from Genetic disorders.                      (15)

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HISTORY OF MEDICINE, RECENT ADVANCES IN  
CLINICAL PHYSIOLOGY ENDOCRINOLOGY AND  
REPRODUCTIVE SYSTEMS

Common to

Paper IV — (Old/New/Revised Regulations)

(Candidates admitted from 1988–89 onwards)

and

Paper — IV (for candidates admitted from 2004–2005  
onwards)

Time : Three hours

Maximum : 100 marks

Theory : Two hours and  
forty minutes

Theory : 80 marks

M.C.Q. : Twenty minutes

M.C.Q. : 20 marks

Answer ALL questions.

Draw suitable diagrams wherever necessary.

I. Essay :

(1) Discuss various functions of glucocorticoids.

Add a note on Cushing's syndrome. (20)

(2) Describe the role of hypothalamic-ovarian  
axis in regulation of reproductive functions in females.

(15)

(3) Discuss the role of various evoked potentials  
in the diagnosis neuromuscular dysfunctions. (15)

II. Write short notes on : (6 × 5 = 30)

(a) History of invention of ECG

(b) G proteins

(c) Voltage clamp technique

(d) Apoptosis

(e) Diabetes insipidus

(f) Insulin-glucagon ratio.

**MARCH 2008**

**[KS 124]**

**Sub. Code : 2021**

M.D. DEGREE EXAMINATION.

Branch V — Physiology

HISTORY OF MEDICINE, RECENT ADVANCES IN CLINICAL  
PHYSIOLOGY ENDOCRINOLOGY AND REPRODUCTIVE  
SYSTEMS

(Common to all candidates)

**Q.P. Code : 202021**

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

Draw diagrams wherever necessary.

- I. Essay questions : (2 × 20 = 40)
1. Define a Hormone. Classify and describe the mechanisms of action of each class.
  2. Discuss the contribution of the following physiologists.
    - (a) B.K. Anand
    - (b) J. Paintal
    - (c) Camillo Golgi
    - (d) W. Einthoven.
- II. Write Short notes on : (10 × 6 = 60)
1. Role of Mitochondria in Apoptosis.
  2. Echo cardiography.
  3. Sex determination-Role of chromosomes and hormones.
  4. Oral contraceptive pills.
  5. Glucose transporters.
  6. Synthesis of thyroid hormone.
  7. Bone growth.
  8. Phyto oestrogens.
  9. Plasma lipid.
  10. Heat shock proteins.
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September 2008

[KT 124]

Sub. Code: 2021

**M.D. DEGREE EXAMINATION**

**Branch V – Physiology**

**Paper IV – HISTORY OF MEDICINE, RECENT ADVANCES IN  
CLINICAL PHYSIOLOGY, ENDOCRINOLOGY AND  
REPRODUCTIVE SYSTEMS**

(Common to all candidates)

*Q.P. Code : 202021*

**Time : Three hours**

**Maximum : 100 marks**

**Draw suitable diagram wherever necessary.**

**Answer ALL questions.**

**I. Essay questions :**

**(2 X 20 = 40)**

1. Discuss in detail the hormones involved in calcium metabolism.
2. Discuss the contribution of the following physiologists.
  - a. Landsteiner.
  - b. Purleinje.
  - c. Banting and Best.
  - d. Korotkov.

**II. Write short notes on :**

**(10 X 6 = 60)**

1. Addison's disease.
  2. Male infertility.
  3. Glucose transporters.
  4. Apoptosis.
  5. Milk ejection reflex.
  6. Cushing's syndrome.
  7. Alzheimer's disease.
  8. Sertoli cells.
  9. Voltage clamp technique.
  10. Tests for ovulation.
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