[KD 126]

Sub. Code: 2024

M.D. DEGREE EXAMINATION.

Branch V — Physiology

(Revised Regulations)

raper IV — HISTORY OF MEDICINE, RECENT ADVANCES IN CLINICAL PHYSIOLOGY, ENDOCRINOLOGY AND REPRODUCTIVE SYSTEM

Time: Three hours MAR . Loo Maximum: 100 marks
Answer ALL questions.

Draw diagrams wherever necessary.

- 1. Discuss the physiology of growth and its disorders. (25)
- 2. Describe the physiology of coitus and add a note on Impotency. (25)
- 3. Write briefly on :

- (a) Addison's disease.
- (b) Muller's Doctrine of Nerve energies.
- (c) Chiari Frommel Syndrome.
- (d) Foeto-plecental unit.
- (e) Insulin receptors.

[KE 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 SYSTEM

Time: Three hours Maxim

Maximum: 100 marks

Answer ALL questions.

Draw diagrams wherever necessary.

- 1. Discuss various types of neuro-endocrine regulations. (25)
- 2. Discuss in detail the dynamic interrelationship between hypothalamus, anterior pituitary and ovary. (25)
- Write briefly on:

 $(5\times10=50)$

- (a) Pineal gland.
- (b) J.E. Purkinje.
- (c) Evoked potentials.
- (d) Foeto-placental unit.
- (e) C-peptide.

[KG 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 SYSTEM

Time: Three hours

Maximum: 100 marks

Answer ALL questions.

Draw diagrams wherever necessary.

- 1. Write an essay on the mechanisms of action of hormones on their target cells. (25)
- 2. Describe the chemistry, biosynthesis, mechanism of action and functions of oestrogens in humans. (25)
- 3. Write briefly on:

- (a) Somatestatin.
- (b) Factors controlling insulin release.
- (c) Puberty.
- (d) Alzheimer's disease.
- (e) Paylov.

[KH 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 SYSTEM

Time: Three hours

Maximum: 100 marks

Answer ALL questions.

Draw diagrams wherever necessary.

- 1. Describe synthesis, storage, release, transportation and metabolism of Triiodothyronine and Thyroxine. (25)
- 2. Describe pituitary and gonadal controls of various events of uterine and vaginal cycles. (25)
- 3. Write briefly on:

- (a) Somatomedins
- (b) Spermatogenesis
- (c) Positron emission tomography
- (d) Acquired immune deficiency syndrome()
- (e) Claude Bernard.

[KI 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 SYSTEM

Time: Three hours

Maximum: 100 marks

Answer ALL questions.

Draw diagrams wherever necessary.

- Discuss the organization and functions of the placenta. What is its influence in fetal and maternal physiology? (25)
- 2. Discuss the changes in body mechanisms during thyroid dysfunction and the methods of investigating them. (25)
- 3. Write briefly on:

- (a) E.H. Starling
- (b) Pathophysiology of obesity
- (c) Permissive action
- (d) Paracrine secretion
- (e) Pseudohermaphroditism.

[KJ 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 SYSTEM

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

M.C.Q. must be answered SEPARATELY on the answer sheet provided as per the instructions on the first page.

Answer ALL questions.

Draw suitable diagrams wherever necessary.

- Discuss the recent advances in various contraceptive methods and explain the physiological basis of their action. (15)
- Explain the actions and mechanism of action of Insulin. Discuss in detail recent advances in the treatment of Diabetes Mellitus and their physiologic basis.

Write short notes on :

 $(10 \times 5 = 50)$

- (a) Pituitary Goanadal axis in males.
- (b) Milk ejection reflex.
- (c) Actions of Aldosterone.
- (d) Acromegaly and Gigantism.
- (e) Placental hormones.
- (f) Actions of Glucocorticoids.
- (g) Pathophy^{siology} of ageing.
- (h) E.H. Starling.
- Permissi√e action.
- Pathophysiology of obesity.

[KL 126]

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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 SYSTEM

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 :

 $(2 \times 15 = 30)$

- Explain the physiological basis of the various drugs used to treat peptic ulcers.
- (2) Describe the role of hormones in the development and functioning of the mammary gland (a) during pregnancy (b) Lactation.

II. Write short answers:

 $(10 \times 5 = 50)$

- (a) Sexual differentiation
- (b) Investigations to diagnose gall bladder diseases
 - (c) Regulation of aldosterone secretion
 - (d) Clinical use of streptokinase
 - (e) Features of hypovolemic shock
- (f) Give a flow chart to show how insulin deficiency leads to acidosis and dehydration
 - (g) Actions of testosterone in an ADULT male
- (h) Mechanisms by which oral contraceptive pills act
 - (i) Steps in synthesis of thyroid hormones
 - (i) Renal actions of parathyroid hormone.