

S.No. 5606

P 16 BC 41

(For candidates admitted from 2016–2017 onwards)

M.Sc. DEGREE EXAMINATION, APRIL 2019.

Biochemistry

ENDOCRINOLOGY

Time : Three hours

Maximum : 75 marks

SECTION A — (10 × 2 = 20)

Answer ALL questions.

1. Enlist hypothalamic hormones.
2. State any two biological significance of leptin.
3. What are antithyroid agents? Give examples.
4. What is osteomalacia?
5. State Pheochromocytoma.
6. Outline the regulation of aldosterone.
7. Specify the transport of G.I. hormones with examples.
8. What is gynecomastia?
9. Define ligands.
10. What is autocrine signalling?

SECTION B — (5 × 5 = 25)

Answer ALL questions.

11. (a) Discuss briefly on a hypothalamic releasing factors.

Or

(b) Explain the biological significance of regulation of Vasopressin.

12. (a) Discuss on hormonal secretion and regulation of PTH.

Or

(b) Give a short account on :

(i) hypocalcemia

(ii) hyperthyroidism.

13. (a) What is Cushing's syndrome? Discuss in brief.

Or

(b) Explain the biological effects of catecholamine.

14. (a) Discuss on pancreatic hormones.

Or

(b) Give a neat sketch and discuss on menstrual cycle.

15. (a) Describe Ras-Raf, MAP kinase cascade.

Or

(b) Discuss on crosstalk in signalling pathway.

SECTION C — (3 × 10 = 30)

Answer any THREE questions.

16. Explain in detail on hormone-receptor structure and regulation with reference to hypothalamic hormones.
17. Outline the manifestation of TFT and discuss the protocols to screen for hypothyroidism.
18. Give an elaborate account on Adrenal Medulla hormones.
19. Discuss in detail on pregnancy tests and foetal monitoring.
20. Explain the signalling pathways of GPCRS with neat sketch.

S.No. 1106

P 16 BC 41

(For candidates admitted from 2016–2017 onwards)

M.Sc. DEGREE EXAMINATION, NOVEMBER 2018.

Biochemistry

ENDOCRINOLOGY

Time : Three hours

Maximum : 75 marks

SECTION A — (10 × 2 = 20)

Answer ALL questions.

1. Enlist the posterior pituitary hormones.
2. Define diabetes insipidus.
3. What is T₃ and T₄?
4. Name any two antithyroid agents.
5. What are catecholamine? Give examples.
6. Define adrenal cortical insufficiency.
7. What is gynecomastia?
8. State any two biochemical changes of pregnancy.

9. Define target cells.
10. Define second messengers.

SECTION B — (5 × 5 = 25)

Answer ALL questions, choosing either (a) or (b).

11. (a) Discuss about secretion regulation and function of gonadotropins.

Or

- (b) Explain the mechanism of anterior pituitary.

12. (a) Discuss regulation and metabolic fate of thyroid hormone.

Or

- (b) Give a brief account on hormonal regulation of calcium/phosphate ions.

13. (a) Discuss about adrenal function tests.

Or

- (b) Write a short note on congenital adrenal hypoplasia.

14. (a) Explain in short the synthesis and biological effect of progesterone.

Or

- (b) Comment on somatostatin as a hormone.

15. (a) What are nuclear receptors? Mention to biological role.

Or

- (b) Comment on cyclic nucleotides as second messengers.

SECTION C — ($3 \times 10 = 30$)

Answer any THREE questions.

16. Give a detailed essay on hypothalamic hormones.
17. Explain PTH secretion, transport and metabolism.
18. Describe the adrenal hormones abnormalities.
19. Write an essay on pancreatic hormones and its biological role.
20. Discuss in detail on cytoplasmic receptors and receptor kinases.
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S.No. 7106

P 16 BC 41

(For candidates admitted from 2016–2017 onwards)

M.Sc. DEGREE EXAMINATION, APRIL 2018.

Biochemistry

ENDOCRINOLOGY

Time : Three hours

Maximum : 75 marks

SECTION A — (10 × 2 = 20)

Answer ALL questions.

1. What is the role of vasopression?
2. Explain SIADH secretion.
3. Disorder of Hypopituitarism.
4. Write the importance of thyroid function test.
5. What are the symptoms of hypercalcemia?
6. Mention the metabolic fate of thyroid hormone.
7. Explain Cushing's syndrome.
8. What is Gynecomastia?
9. Explain the role of progesterone.
10. What is crosstalk?

SECTION B — (5 × 5 = 25)

Answer ALL questions, choosing either (a) or (b).

11. (a) Discuss in brief on hypothalamic releasing factors.
- Or
- (b) Give an account on prolactin and leptin.
12. (a) What is hypocalcemia? Discuss in short.
- Or
- (b) Write a note on regulation of parathyroid hormone.
13. (a) Discuss on congenial adrenal hyperplasia.
- Or
- (b) Comment on phaeochroma cytoma.
14. (a) Discuss the biosynthesis and metabolism of GI hormone.
- Or
- (b) Explain the menstrual cycle.
15. (a) Define a signal. Discuss autocrine signaling.
- Or
- (b) Outline and discuss on Ras-raf, MAP kinase cascade.

SECTION C — (3 × 10 = 30)

Answer any THREE questions.

16. Explain in detail on biological function, regulation and disorders of growth hormones.
 17. Write an essay on thyroid function tests and disorders of thyroid hormones.
 18. Describe in detail on Adrenal Cortical hormones
 - (a) Synthesis.
 - (b) Biological effect.
 - (c) Cushing syndrome.
 19. Give elaborate account on estrogen and pregnancy test and foetal monitoring.
 20. Explain in detail on second messengers in signal transduction with examples.
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