



ILARA MOKIN, ONDO STATE

FACULTY OF BASIC AND APPLIED SCIENCES
DEPARTMENT OF PHYSICAL AND CHEMICAL SCIENCES
B.SC DEGREE EXAMINATIONS SECOND SEMESTER 2017/2018 ACADEMIC SESSION

COURSE CODE: BCH 402

COURSE TITLE: PRINCIPLES OF ENDOCRINOLOGY

DURATION: 2 HOURS

INSTRUCTION: *Attempt any 3 of the 5 questions*

HOD's SIGNATURE

- 1a) Mention the hormones secreted by the anterior and posterior pituitary gland.
State one function for each of these hormones. 9 marks
- 1b) Using a chart diagram classify hormones based on their chemical structure into steroids, polypeptides and amino acid derivatives. 7 marks
- 1c) What do you understand by Regulated and Constitutive secretion of hormone?
4 marks.
- 2a) Explain negative feedback control with respect to thyroxine and thyroid-stimulating hormone. 5 marks
- 2b) Explain how G-protein is activated. 5 marks
- 2c) Describe the hormonal signal transduction through phospholipase C results in the release of calcium into the cytosol. 10 marks
- 3a) State the similarities and differences between phosphatase and protein kinase. 6 marks
- 3b) Describe the structure of insulin stating the positions that are conserved. 14 marks
- 4) Write a short note on any of the following:
i) Calmodulin ii) Hormone-responsive elements
iii) Enhancer elements iv) Fusion genes 7 marks
- 4b) Briefly explain how signal transduction from Adrenalin and cAMP results in glycogen break down. 13 marks
- 5a) Give the functions of prostaglandins. 10 marks
- 5b) State four differences between steroid and peptide hormones. 4 marks
- 5c) Explain the epinephrine signal transduction switch off. 6 marks