

Marks	Description
1	2. Receptor attaches (binds) to hormone/hormone-receptor complex forms
1	3. Enters nucleus/ through nuclear pore
1	4. Complex binds to DNA/chromatin receptor sites/activation of genes/activation/ up regulation of genes
1	5. Transcription/production of mRNA/protein synthesis

- 14 2013:32 (11 marks)
- (a) (i) E/adrenal gland/adrenal cortex/suprarenal gland  
 (ii) Any one of: (1 mark each - max. 1)  
 C/parathyroid gland  
 D/thyroid
- (b) A - increases or decreases release of ADH/releases ADH  
 B - receptor/detect changes/osmotic pressure/osmotic balance/produces ADH/stimulates A to release ADH/acts as modulator
- (c) (i) Steroid/lipid (soluble)  
 (ii) Lipid/phospholipid
- (d) 1 mark each - max. 4

- 13 2011:25 (3 marks)
- (a) Parathyroid hormone/parathormone  
 (b) Any example for 2 (1 for identity and 1 for response)  
 • Small intestine - Increasing the absorption of calcium from digested food  
 • Kidneys/nephron - Increasing calcium reabsorption

- (d) (1) An autonomic/sympathetic nerve impulse (0 marks if say cortex)  
 (e) (1) Negative feedback/FSH releasing factor increase/increase gonadotrophin releasing factor

1 mark per point in each box - Max. of 4 marks

Target Cells/Organs	Functions
ACTH	Stimulates secretion of corticosteroids/cortisol
LH	Females - Ovaries/ovarian follicle OR Males - testes/interstitial cell of testes

- 12 2010:21 (11 marks)
- (a) Hypothalamus detects changes/stimulated (hormones, neurons, negative or positive feedback)  
 (1) Releasing factors released into the blood/vascular portal system to the anterior pituitary  
 (1) Releasing factors stimulate anterior pituitary which releases hormones  
 (1) Hormones are produced in the hypothalamus  
 (b) Pass down to the posterior pituitary via axons/nerves/neurosecretory cells  
 (1)

SHORT ANSWER QUESTIONS

1 (2012:06)	(d)	2 (2012:17)	(a)	3 (2012:18)	(c)	4 (2012:19)	(d)
5 (2012:29)	(d)	6 (2013:07)	(c)	7 (2014:07)	(c)	8 (2014:11)	(c)
9 (2015:04)	(b)	10 (2015:05)	(a)	11 (2015:29)	(d)		

MULTIPLE-CHOICE QUESTIONS

Chapter 1: Endocrine system

Unit 3 Homeostasis and disease