

Homeostasis and response

Homeostasis

Regulates internal conditions

optimum for enzymes all cell functions

Conditions controlled

blood glucose body temperature water levels

Receptors

detect stimuli

Coordination centres

brain spinal cord pancreas

Effectors

muscles glands

Nervous system

CNS: brain and spinal cord

electrical impulses neurones

Reflex arc

sensory neurone relay neurone synapse

motor neurone

Reflex actions

automatic rapid protect from harm

Reaction time practical

ruler drop repeat and mean

Hormones

Endocrine system

glands blood target organ pituitary master gland

Blood glucose

pancreas insulin glycogen Type 1 and Type 2

Reproductive hormones

oestrogen testosterone FSH and LH progesterone

Contraception

hormonal barrier IUD sterilisation

Infertility treatment **Higher tier**

FSH and LH IVF

Glucagon, adrenaline, thyroxine **Higher tier**

glucagon: glycogen to glucose adrenaline: flight or fight

thyroxine: metabolic rate negative feedback