

(The human endocrine system (hormones, pituitary, thyroid, adrenaline))

Q1.(2021)

coordination by endocrine
system is:

slower

longer-lasting

(chemical / hormone) via blood
instead of electrical / impulse /
neurones

Q2.(2023)

(thyroxine) increases (basal)
metabolic rate

respiration releases energy

Q3.a)(2024)

thyroxine

Q3.b)(2024)

any **one** from:

- insulin
- glucagon

Q3.c)(2024)

any **two** from:

- increases heart rate
- increases breathing rate
- increases oxygen delivery to cells / tissues / organs
- increases glucose delivery to cells / tissues / organs
- increases respiration / metabolism
- increases sweat(ing)

Q3.d)(2024)

contraception:

- use of hormones oestrogen and progesterone **or** progesterone (only)
- inhibition of FSH (production / release)
 - lack of FSH prevents follicle / egg development / maturation
 - therefore there is no egg to fertilise
- inhibition of LH (production / release)
 - lack of LH prevents ovulation
 - therefore there is no egg to fertilise
- contraceptive methods include oral contraceptive pill, injection, implant, skin patch, IUD / IUS with hormones

treatment of infertility:

- use of FSH
- (FSH) stimulates **maturation** of (several) egg(s) / follicle(s)
 - (FSH) increases number of eggs matured
- use of LH
- (LH) stimulates ovulation
 - (LH) allows eggs / follicles to be collected (from ovary)
 - (so) increased chance of fertilising an egg
 - IVF and insertion of embryo(s) into uterus
- use of progesterone
- (to) maintain uterus lining
 - increased chance of implantation