**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Task 12 Solutions**

**Question 2 20 marks**

* Endocrine system consists of ductless glands that secrete homones to communicate to cells (1)
* The hypothalamus releases rfFSH or GnRH which acts on anterior pituitary it releases FSH(1)
* FSH stimulates growth of the follicle(1) on the ovary
* Pituitary gland removed the body cannot produce FSH, treating patient with FSH would allow the cycle to continue (1)
* Follicle would develop and produce oestrogens (1)
* Oestrogen build up endrometrium lining (1)
* Increase oestrogen in blood is detected by hypothalamus negative feedback on FSH release(1), positive feedback on LH release(1)
* It releases rfLH, rfLH normally acts on Anterior pituitary gland it release LH(1)removal of APG stops LH from being produced.(1)
* To continue cycle LH would have to be given to patient and FSH stopped being taken (1)
* As inhibits release of rfFSH pituitary gland stops producing FSH (1)
* Increase LH matures follicle and results in ovulation. Follicle forms the corpus luteum(1)
* Corpus luteum produces progesterone and oestrogen.(1)
* Progesterone maintains endometrium (1)
* Progesterone has a negative feedback on production of LH(1)
* As Progesterone levels increase the patient would need to take reducing levels of LH (1)
* In non-pregnant woman CL begins to degenerate, decreasing progesterone and oestrogen levels. Endometrium breaks down menstruation begins (1)
* Low levels detected by hypothalamus- cycle begins again (1)
* Patient would need to continue being treated with FSH and LH at appropriate times in their cycle to maintain the menstrual cycle. (1)

**Comments**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Task 12 Solutions**