



# Islamabad Model College for Boys H-9, Islamabad

Home Assignment during Pandemic Closure November – December 2020

**Note:** - Submission Date is first week after January 11, 2021 or whenever the college will re-open.

**Class:** 2<sup>nd</sup> Year Pre-medical      **Subject:** Biology

## Assignment for Week 1

### Q1) Short Questions:

- i) What is the chemical nature of hormone? **(03)**
- ii) What is difference between protein and polypeptide Harmon give example of each. **(03)**
- iii) What is the mode of action of protein in polypeptide hormone? **(03)**
- iv) What is the mode of action of steroid and thyroid hormones? **(03)**
- v) write the names of any three hormones which are released from hypothalamus. **(03)**
- vi) what is difference between primary in trophic hormone? give example of each. **(03)**
- vii) Write the structure and location of pituitary gland in the body. **(03)**
- viii) Write names of any three hormones which are released from anterior lobe of pituitary gland. **(03)**
- ix) Give role and control of secretion of TSH **(03)**
- x) Name the different types of gonadotropins and state their function briefly. **(03)**
- xi) What is the control of secretion and functions of oxytocin? **(03)**
- xii) What are the effects of abnormal secretion of somatotrophic hormone (STH) **(03)**
- xiii) Differentiate between diabetes insipidus and diabetes mellitus. **(03)**
- xiv) Write any three differences between calcitonin and parathormone. **(03)**
- xv) Write any three functions of thyroxine. **(03)**
- xvi) what are the effects of abnormal secretions of thyroxine **(03)**
- xvii) Differentiate between insulin and glucagon. **(03)**
- xviii) Explain briefly, the example of positive feedback in hormones. **(03)**
- xix) Name any three hormones and their functions which are secreted by GIT. **(03)**
- xx) What are the effects of abnormal secretion of corticosteroids **(03)**

### Q2) Long Questions

- i) Describe the role of interior pituitary as master gland. **(10)**
- ii) What are the hormones of adrenal gland? Describe their control of the secretions, function, and the effects of their abnormal level in the body. **(10)**

## Assignment for Week 2

### Q1) Short Questions:

- i) How do reproduction is different from other life functions? **(03)**
- ii) Name any three accessory ducts and their functions in male reproductive system. **(03)**
- iii) What are the factory glands of male reproductive system and state their role briefly in male reproductive system? **(03)**
- iv) Name any three Harmons and their functions which control the activities of male reproductive system? **(03)**
- v) What is spermatogenesis and oogenesis? Pinpoint their sites in human body.
- vi) What is the structure of uterine wall? OR Name the layers of uterine wall and write their composition. **(03)**
- vii) Write any three events which are included in ovarian cycle. **(03)**
- viii) Write any three events which are included in uterine cycle. **(03)**
- ix) Define the terms: (a) menarche, (b) menopause, and (c) follicle atresia. **(03)**
- x) Name any three hormones which control the activities of female reproductive system. **(03)**
- xi) What is corpus luteum? How is it formed and write its function? **(03)**
- xii) Write any three causes of male infertility. **(03)**
- xiii) Write any three causes of female infertility. **(03)**
- xiv) How does test tube babies are produced. **(03)**
- xv) Differentiate the terms: (a) miscarriage, (b) premature birth, and (c) abortion. **(03)**
- xvi) What are the most fertile days of menstrual cycle? Also justify your answer. **(03)**
- xvii) Write any three causes of miscarriage. **(03)**
- xviii) What is Graafian follicle? State its function briefly. **(03)**
- xix) What s difference between oogenesis and ovulation? **(03)**
- xx) What is difference between menarche and menopause? **(03)**

### Q2) Long Questions

- i) Describe the structure and function of male reproductive system. **(10)**
- ii) Describe various events in ovary and uterus and their hormonal control during menstrual cycle. **(10)**

## Assignment for Week 3

### Q1) Short Questions:

- i) Define the following terms: (a) cleavage, (b) morula and (c) blastula **(03)**
- ii) What is the structure of human blastocyst? **(03)**
- iii) Differentiate between meroblastic and holoblastic cleavage **(03)**

- iv)** What is difference in the distribution of yolk in the fertilized eggs of sea urchin, frog and chicks **(03)**
- v)** What is gastrulation? When does it occur in human embryonic development? **(03)**
- vi)** What do you know about origin and function of hypoblast and epiblast? **(03)**
- vii)** What is the fate of three embryonic germ layers? **(03)**
- viii)** What is neurulation? State any three events of this process. **(03)**
- ix)** What are the neural crest cells give the names of any two body parts that are derived from them? **(03)**
- x)** Why neural crest cells are sometime also referred to as fourth germ layer? **(03)**
- xi)** What do you know about source and function of human chorionic gonadotropins **(03)**
- xii)** What are the divisions of human gestation period? **(03)**
- xiii)** Write any three events of first trimester. **(03)**
- xiv)** Write any three events of second trimester. **(03)**
- xv)** Write any three events of third trimester **(03)**
- xvi)** Name any three extra embryonic membranes and their functions. **(03)**
- xvii)** What is the source and function of progesterone during pregnancy? **(03)**
- xviii)** Write any three functions of placenta. **(03)**
- xix)** What is the structure of umbilical cord **(03)**
- xx)** Write any three differences between identical and fraternal twins? **(03)**

## **Q2) Long Questions**

- i)** What is human gestation period. Describe the events of fertilization, blastocyst formation and its implantation during pregnancy. **(10)**
- ii)** Describe the process of neurulation and the role of neural crest cells as part of organogenesis. **(10)**