

### Human Reproduction

- 1) Describe the structure, functions and anatomy of the male reproductive system? (6)
- 2) Describe the structure, functions and anatomy of the female reproductive system? (6)
- 3) Describe the process of spermatogenesis? (4)
- 4) Describe the process of oogenesis? (6)
- 5) What are the roles of;
  - a. Sertoli cells (1)
  - b. Interstitial cells (1)
  - c. Epididymis (1)
- 6) What is the significance of the mature Graafian follicle? (2)
- 7) What are the adaptations of the sperm cell to its function? (3)
- 8) Draw a labelled diagram of a sperm cell? (3)
- 9) Secretions from which regions help to turn sperm into semen? (3)
- 10) How long can the sperm remain viable? (1)
- 11) After how long does the ovum released from the Graafian follicle of the ovary die if it is not fertilised? (1)
- 12) Describe the process of capacitation? (3)
- 13) Explain the acrosome reaction and its purpose? (4)
- 14) Why are changes needed in the zona pellucida following sperm entry and what changes take place? (2)
- 15) When is the second meiotic division of the oocyte nucleus completed? (1)
- 16) When do the primary oocytes mature i.e. complete the first meiotic division? (1)
- 17) At what stage of meiosis is the division of primary oocytes halted when it initially begins? (1)
- 18) At what stage of meiosis is the division arrested when the secondary oocyte begins the secondary meiotic division? What will allow this to reach completion? (2)

- 19) Where is the most common site of fertilisation? (1)
- 20) What is an ectopic pregnancy and why is it dangerous? (2)
- 21) What is a blastocyst? (1)
- 22) What is implantation and when does it take place post-fertilisation? (2)
- 23) What is the outer layer of the blastocyst known as? (1)
- 24) What is the chorion, chorionic villi and the amnion? (3)
- 25) Which hormone does the chorion secrete? (1)
- 26) What is the role of the hormone in Q25? (2)
- 27) What is the corpus luteum and why is it necessary? (2)
- 28) What is the role of the placenta? (2)
- 29) What is the umbilical cord and why is it important? (2)
- 30) What do the chorionic villi eventually go on to form? (1)
- 31) Explain the difference between subfertility and infertility? (2)
- 32) Suggest 2 causes of female infertility? (2)
- 33) Suggest 2 causes of male infertility? (2)
- 34) Explain how pregnancy testing kits work? (4)
- 35) Why is an early morning urine sample used for pregnancy testing? (1)

Total: / **83**