**1.** What is the difference between spermatogenesis and oogenesis?

|  |  |  |
| --- | --- | --- |
|  | **Spermatogenesis** | **Oogenesis** |
| A. | final cells are a similar size | final cells are not all the same size |
| B. | cells produced are undifferentiated | cells produced are differentiated |
| C. | spermatogenesis begins in a boy at birth | oogenesis begins in a girl before she is born |
| D. | one germinal epithelium cell produces four sperm cells in a testis | one germinal epithelium cell produces one oocyte in the ovary |

(Total 1 mark)

**2.** Which pair of statements best describes oogenesis and spermatogenesis?

|  |  |  |
| --- | --- | --- |
|  | **Oogenesis** | **Spermatogenesis** |
| A. | Four eggs are produced per mitosis every 28 days | Millions of sperms are produced per mitosis |
| B. | Four eggs are produced per meiosis every 28 days | One sperm is produced per meiosis |
| C. | One egg is produced per mitosis every 28 days | Millions of sperms are produced per meiosis |
| D. | One egg is produced per meiosis every 28 days | Four sperms are produced per meiosis |

(Total 1 mark)

**3.** Which of the cells labelled in the diagram below provides nourishment for developing sperm cells?



[Source: Freeman & Bracegirdle, *An Atlas of Histology*, (Heinemann: 1976) p. 91, Copyright holder unknown.]

(Total 1 mark)

**4.** (a) Gametes are produced in humans by spermatogenesis and oogenesis. Compare spermatogenesis and oogenesis.

(5)