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**Max Time : 1 hr** **Class = 12th Biology Test**  **Max Marks : 25**

**HUMAN REPRODUCTION**

**[Based on Male Reproductive System]**

1. Multiple choice questions : [ 1 X 4 = 4 ]
2. In humans, at the end of first meiotic division, the male germ cells differentiates into the :

|  |  |
| --- | --- |
| a) spermatids | b) Spermatogonia |
| c) primary spermatocytes | d) secondary spermatocytes |

1. Which among the following has 23 chromosomes ?

|  |  |  |  |
| --- | --- | --- | --- |
| a) Spermatogonium | b) Zygote | c) Secondary spermatocyte | d) oogonium |

1. Match column I and column II

|  |  |  |
| --- | --- | --- |
| Column I | Column II | |
| A. Seminiferous tubules | I. Network of seminiferous tubules | |
| B. Rete testis | II. Secondary sex characters | |
| C. Leydig’s cell | III. sperm formation occurs | |
| D. Prepuce skin | IV. Terminal skin of penis | |
| a) A – I ; B – II ; C – III ; D – IV | | | b) A – III ; B – I ; C – II ; D – IV | |
| c) A – III ; B – I ; C – IV ; D – II | | | d) A – III ; B – II ; C – I ; D – IV | |

1. Seminal plasma in humans is rich in :

|  |  |
| --- | --- |
| a) Fructose but poor in calcium | b) Fructose and calcium |
| c) Progesterone and testosterone | d) Potassium and calcium |

1. Define Insemination. [ 1 ]
2. Define Gubernaculum [ 1 ]
3. What is semen and how many sperms are present in single ejaculation [ 1 ]
4. What are the major secretion of prostate and Cowper’s gland ? [ 2 ]
5. Write any two functions of Sertoli cells and Epididymis. [ 2 ]
6. Mention the function and location of Leydig cells in human. [ 2 ]
7. Define Spermiogenesis and Spermiation. [ 2 ]
8. Draw a diagram of a mature human sperm. Label the following parts in it and write their functions.

|  |  |  |
| --- | --- | --- |
| a) Acrosome | b) Nucleus | c) Middle piece [ 3 ] |

1. Describe in sequence the process of spermatogenesis in humans. [ 3 ]
2. Explain the following questions on the basis of hormonal control of spermatogenesis. [ 4 ]
3. State the site of action of FSH in the testis and describe its role.
4. Name the cells and their products which undergo :

(i) Mitosis and differentiation (ii) Meiosis I and Meiosis II

1. Name the accessory ducts that the sperms travel through from seminiferous tubules to epididymis.