

GOVERNMENT ZIRTIRI RESIDENTIAL SCIENCE COLLEGE

Subject : Zoology
Paper name : Endocrinology & Reproduction Biology
Paper No : IV
Semester : Fourth

A. Multiple choice questions:

1. Insulin is secreted by
 - a) β cells
 - b) α cells
 - c) islets of Langerhans
 - d) D cells
2. Calcitonin is secreted by
 - a) thyroid gland
 - b) parathyroid gland
 - c) pituitary gland
 - d) renal gland
3. A condition in which blood sugar is increased above the normal level is
 - a) hyperglycemia
 - b) myxoadema
 - c) simple goitre
 - d) cretinism
4. Excess secretion of growth hormone (GH) during childhood leads to
 - a) gigantism
 - b) acromegaly
 - c) Simmond's disease
 - d) Cushing syndrome
5. Steroid hormones are derived from
 - a) cholesterol
 - b) serotonin
 - c) epinephrine
 - d) thyroid
6. Which of the following is a class of steroid hormones
 - a) corticosteroids
 - b) sex steroids
 - c) progesterone
 - d) Both (a) and (b)
7. Which of the following is used for the treatment of diabetes
 - a) antibiotics
 - b) therapy
 - c) fasting

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- d) insulin
8. Guanine nucleotide protein is also known as
- Gn-binding protein
 - G-protein
 - P-guanine
 - nucleotide proteins
9. Glucose is stored in the liver in the form of
- starch
 - maltose
 - sucrose
 - glycogen
10. Pick the odd one out
- progesterone
 - androgens
 - estrogens
 - carcinogen
11. A sequence of events that repeat themselves at regular time intervals at the same time is called
- Rhythm
 - Cycle
 - Equilibrium
 - Constant
12. Biological rhythm with a period length less than 24 hours
- Infradian
 - Ultradian
 - Time median
 - Chronology
13. A biological rhythm that has a 24 hour cycle is called
- Hibernation
 - Circadian
 - Circatidal
 - Aestivation
14. Glucose homeostasis is the balance of insulin and glucagon to maintain glucose in ...
- liver
 - plasma
 - blood
 - cellular
15. Formation and maintenance of teeth and bones is done by
- calcium
 - glucose
 - cellulose

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- d) sucrose
16. The process of maturation of male gametes is called
- spermatogenesis
 - mitosis
 - oogenesis
 - spermateleosis
17. In the female, FSH and LH trigger the production of
- testosterone
 - estrogen
 - gonadotropin
 - eggs
18. Hormone oxytocin acts on
- smooth muscle fibres
 - voluntary muscles
 - striated muscles
 - pituitary gland
19. Pheromones are chemical molecules that
- act on the peripheral nervous system
 - are released into the environment
 - have a sweet smell
 - All of the above
20. Secretions of the preen gland in social seabirds act as
- trail pheromones
 - sex pheromones
 - territorial pheromones
 - alarm pheromones
21. Menstrual cycle not associated with bleeding is found in
- New World monkeys
 - Rhesus monkeys
 - Chimpanzees
 - None of the above
22. Contraceptive pills do not
- engulf the sperm
 - alter the quality of cervical muscles
 - prevent the entry of sperm
 - inhibit implantation
23. Which of the following is considered to be the last phase of menstrual cycle?
- proliferative phase
 - destructive phase
 - secretory phase

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d) ovulatory phase

24. Which of the following are monoestrous animals?

- a) pigs
- b) cows
- c) squirrels
- d) foxes

25. HPO axis in mammalian females is regulated by

- a) 2 endocrine glands and 3 hormones
- b) 3 endocrine glands and 5 hormones
- c) 4 endocrine glands and 4 hormones
- d) 5 endocrine glands and 5 hormones

B. Fill in the blanks:

1. Amino acid derivative hormones are commonly derived from _____ .
2. _____ are precursors for peptide hormones.
3. Hormones are formed by certain cells of aggregate of cells referred to as _____ .
4. Blood sugar is due to presence of excess sugar in the _____ .
5. In the hormone receptor, a hormone binds to a specific _____ .
6. _____ is an organ behind the stomach that is the main source of insulin.
7. Glucagon signals _____ mobilization.
8. _____ play a central role in prolonged starvation, replacing glucose as the primary fuel for the brain and signaling a reduction in protein catabolism and alanine output from muscle.
9. The persistence of biological rhythm in the absence of a synchronizing agent is known as _____ .
10. At the end of gametogenesis, mature gametes contain _____ chromosome number.
11. Leydig cells produce _____ .
12. The female silkworm releases _____ to attract males.
13. The hormone _____ stimulates the pituitary gland to produce FSH and LH.
14. Estrus phase is also known as _____ period in which the females become receptive to male.
15. Chemical barriers known as _____ are sperm killing substances.

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Answer Key

A. Multiple choice questions :

- | | | | | | | |
|---------|---------|---------|---------|---------|---------|---------|
| 1. (c) | 2. (a) | 3. (a) | 4. (a) | 5. (a) | 6. (d) | 7. (d) |
| 8. (b) | 9. (d) | 10. (d) | 11. (a) | 12. (b) | 13. (b) | 14. (c) |
| 15. (a) | 16. (d) | 17. (b) | 18. (a) | 19. (b) | 20. (b) | 21. (d) |
| 22. (a) | 23. (c) | 24. (d) | 25. (b) | | | |

B. Fill in the blanks :

1. tyrosine and tryptophan
2. prohormones
3. endocrine glands
4. blood
5. receptor
6. Pancreas
7. fat
8. ketones
9. free running
10. haploid
11. testosterone
12. bombykol
13. gonadotropin releasing hormone
14. heat
15. spermicides