

# **CONTINUITY OF LIFE DEVELOPMENTAL BIOLOGY**

## **ONE MARK QUESTIONS**

- 1. What is gametogenesis?**
- 2. Name the structural and functional units of mammalian testis.**
- 3. What are primordial germ cells (primary germ cells) ?**
- 4. Name the cells which undergo first meiosis during spermatogenesis.**
- 5. What is spermateleosis (spermiogenesis)?**
- 6. Name the type of cells in the seminiferous tubule which nourish the sperm.**
- 7. How many sperms are produced from each primary spermatocyte?**
- 8. Name the cells which undergo first meiosis during oogenesis.**
- 9. How many ova are produced from each primary oocyte?**
- 10. Name the phase in oogenesis during which vitellogenesis occur.**
- 11. What is nebenkern ?**
- 12. Which cell organelle gives rise to acrosome part of the sperm?**
- 13. Which part of the sperm has the Nebenkern?**
- 14. What is manchette?**
- 15. What are egg membranes ?**
- 16. What is deuteroplasm (yolk)?**
- 17. Which is the reserve food of ovum (egg)?**
- 18. What are gamones?**
- 19. Name the space found between plasma membrane and vitelline membrane of the egg.**
- 20. What is fertilization (syngamy)?**
- 21. What is monospermy?**
- 22. What is Amphimixis?**
- 23. Name the area of zygote of frog which does not show pigmentation.**
- 24. What is grey crescent?**

25. What is blastulation?
26. What is coeloblastula?
27. What is archenteron?
28. Which primary germ layer forms the gonads?
29. From which germ layer does brain and spinal cord arise.

**GIVE REASONS FOR THE FOLLOWING:  
(ONE MARK EACH)**

30. Gametes are haploid.
31. Human males are heterogametic.
32. Sertoli cells are called nurse cells.
33. Polar bodies are formed during oogenesis.
34. Why do polar bodies disintegrate?
35. Why Frog's cleavage is called holoblastic unequal?
36. Why growth phase in oogenesis is very significant?
37. Vitelline membrane is a primary egg membrane.
38. Jelly coat of frog's egg is a tertiary egg membrane.
39. Why does sperm of one species fertilizes the egg of the same species?
40. The animal pole of frog's egg is dark in colour.
41. The vegetal hemisphere of the frog's egg is pale in colour.
42. Jelly coat of frog's egg swells up during frog's spawning.
43. Blastula of frog is coeloblastula.

**SHORT ANSWER QUESTIONS  
TWO MARKS QUESTIONS.**

44. Write distinguishing features between spermatogenesis and oogenesis.
45. State any four similarities between spermatogenesis and oogenesis.
46. Mention any four difference between Sperm and Ovum.
47. With references to human sperm, mention the functions of the following.
  - a. Acrosome
  - b. Nebenkern
  - c. Distal centriole
  - d. Tail

48. What is acrosome? What is its role in fertilization?
49. Write any 4 differences between external fertilization and internal fertilization
50. Differentiate between fertilizin and antifertilizin.
51. What is fertilization membrane? How is it formed?
52. Mention any 4 significance of fertilization.
53. Classify frog's egg on the basis of amount and distribution of yolk.
54. What is cleavage? What type of cleavage takes place in frog ?
55. Draw a neat diagram of V S of blastula of frog and label the parts.
56. What are morphogenetic movements? Mention any three of them with reference to the development of frog.

#### **FIVE MARK QUESTIONS**

57. Give the schematic representation of spermatogenesis and explain.
59. Explain Human sperm with the help of a labelled diagram.
60. Draw a neat labelled diagram of fertilized egg of frog and explain.
61. Explain cleavage in frog's egg with suitable diagrams.
62. Draw a neat labelled diagram of V S of Blastula of frog and explain.
63. Draw a neat labelled diagram of V S of Gastrula of frog and explain.
64. With the help of labeled sketches describe the process of fertilization.

## **HUMAN REPRODUCTION**

#### **ONE MARK QUESTIONS**

65. Name the non-reproductive cell found in the germinal epithelium of male gonad.
66. What is an antrum ?
67. Mention the site of fertilization in human.

68. What is ovulation ?
69. Define implantation.
70. Name the physiological connection between the mother and fetus.
71. What is Allantochorionic placenta?
72. What is endometrium?
73. What is pregnancy (gestation)?
74. What is duration of gestation in humans?
75. Name the hormone responsible for the secondary sexual characters in males
76. Name the organ which secretes human chorionic gonadotropin(hCG).
77. Name the cells which secrete testosterone.
78. Which is the pregnancy hormone?
79. What is contraception ?
80. What is azoospermia?
81. Name the causative agent (bacteria) of syphilis.
82. Name the virus which causes AIDS.
83. Expand STD
84. Expand ZIFT
85. Expand GIFT

**GIVE REASONS FOR THE FOLLOWING:  
(ONE MARK EACH)**

86. Human egg is alecithal.
87. Human fetus is a parasite on the mother.
88. The progesterone is called pregnancy hormone.
89. Menstruation is generally not seen during pregnancy.
90. Why is contraception necessary?

**SHORT ANSWER QUESTIONS**

**TWO MARKS QUESTIONS.**

- 91. Mention four functions of placenta**
- 92. Mention the phases of menstrual cycle.**
- 93. Mention two ovarian hormones.**
- 94. What is IUD? Give an example.**
- 95. List four common causes for infertility among males**
- 96. What is Gonorrhoea ? Name the causative organism**
- 97. Mention any four preventive measures to control AIDS**
- 98. Name two sexually, transmitted diseases.**
- 99. Write any four symptoms of AIDS.**

**FIVE MARK QUESTION**

- 100. What is AIDS? Write the mode of its infection and preventive measures.**

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