

S.No. 1763

12UBTS02

(For the candidates admitted from 2012 – 2013 onwards)

B.Sc. DEGREE EXAMINATION, NOVEMBER 2017.

Third Semester

Biotechnology

SBEC– DEVELOPMENTAL BIOLOGY

Time : Three hours

Maximum : 75 marks

PART A — (10 × 2 = 20 marks)

Answer ALL questions.

1. What are seminiferous tubules?
2. Define folliculogenesis.
3. What is polyspermy?
4. What is zona pellucida?
5. Define radical cleavage.
6. Write on Homeosis and its importance.
7. What is cleistogamy?

8. Brief on apomixes?
9. What is plastochron?
10. Define Whorl.

PART B — (5 × 5 = 25 marks)

Answer ALL questions.

11. (a) Write a brief note on menstrual cycle.
Or
(b) Give a note on ovulation.
12. (a) Brief out on activation of egg and cortical reaction.
Or
(b) Give an account on conical granule.
13. (a) Elaborate on the role of cytoplasmic substance of the egg during cleavage.

Or

- (b) Give an account on holoblastic cleavage.

14. (a) Explain the application of somatic embryogenesis.

Or

- (b) Provide an insight on abiotic pollination.
15. (a) Give an account on intercalary meristem.

Or

- (b) Discuss briefly on the types of primary meristem.

PART C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Define spermatocytogenesis. Elaborate the process of spermatocytogenesis.
17. Write an essay on the activation of egg.
18. Explain in detail about homeotic mechanisms in animals.
19. Write in detail about the process of pollination.
20. Discuss about the structure and organisation of apical meristem.