

**D.K.M. COLLEGE FOR WOMEN (AUTONOMOUS), VELLORE – 1****SEMESTER EXAMINATIONS****NOVEMBER – 2017****15CPBC1D****ECOLOGY, EVOLUTION AND CELL DYNAMICS**

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**Time: 3 Hrs****Max. Marks: 75****SECTION – A (5 X 6 =30)****Answer ALL the questions.**

1. (a) Explain Cell Cycle .

(Or)

(b) Discuss about protein sorting and transport.

2. (a) Write briefly about tissue slice techniques.

(Or)

(b) What are the staining solutions used in tissue fixation? Explain.

3. (a) Differentiate Biotic from Abiotic environment.

(Or)

(b) Explain the character displacement in the environment.

4. (a) Write short notes on Metapopulation.

(Or)

(b) Describe the Oparin and Haldane Hypothesis.

5. (a) List out the major events in the evolutionary time scale.

(Or)

(b) Explain molecular clocks.

**SECTION – B (3 X 15 =45)****Answer any THREE of the following questions.**

6. Describe the structure and functions of microtubules.

7. Discuss in detail about the types of cell fixation.

8. What is ecological succession? Explain its types.

9. Explain the characteristics of a population, population growth curves and its regulation.

10. Elaborately describe the classification and identification of molecular tools in phylogeny.

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