

2019

(January)

Time : 2 hours

Full Marks : 40

Answer all questions

*The figures in the right-hand margin indicate marks
Candidates are required to answer in their own words
as far as practicable*

Draw neat labelled diagrams wherever necessary

(CELL BIOLOGY AND GENETICS)

1. Describe the structure and functions of Mitochondria. 14

Or

Write notes on any two of the following : 7 × 2

- (i) Golgi body

(2)

(ii) Involvement of Ribosomes in protein synthesis

(iii) Microfilaments and intermediate filaments.

2. Describe the structure and numerical changes in chromosome and its impact on cytotaxonomy. 13

Or

Write notes on any *two* of the following : $6\frac{1}{2} \times 2$

(i) Explain Neomendalism

(ii) Linkage and crossing over

(iii) Hardy-Weinberg Law.

3. Describe the cytological and morphological abnormalities of cancer cells. 13

Or

Write notes on any *two* of the following : $6\frac{1}{2} \times 2$

(i) Describe cell cycle and cell cycle check points

(3)

(ii) Write an account on Apoptosis

(iii) Cell cycle control mechanism.