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BG—12—2016

FACULTY OF SCIENCE

B.Sc. (Second Year) (Third Semester) EXAMINATION

OCTOBER/NOVEMBER, 2016

(Revised Course)

BIOTECHNOLOGY

Paper (BTT-3.2)

(Cytology)

(Monday, 21-11-2016)

Time : 2.00 p.m. to 5.00 p.m.

Time—3 Hours

Maximum Marks—80

N.B. :— (i) All questions are compulsory.

(ii) Draw well labelled diagram wherever necessary.

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| 1. | (a) | Describe in detail biogenesis of mitochondria and chloroplast. | 10 |
| | (b) | Define meiosis. Discuss general events of meiosis. | 10 |
| 2. | (a) | Write in detail about cytosol and its function. | 8 |
| | (b) | Describe structure and functions of chloroplast. | 7 |
| | | <i>Or</i> | |
| | (a) | Write in detail about Golgi apparatus. | 8 |
| | (b) | Discuss glyoxisome and peroxisomes. | 7 |
| 3. | (a) | Discuss Na ⁺ /K ion channel. | 8 |
| | (b) | Discuss receptor mediated endocytosis. | 7 |
| | | <i>Or</i> | |
| | (a) | Write a note on fluid mosaic model of cell membrane. | 8 |
| | (b) | Write a note on passive transport of cell. | 7 |
| 4. | (a) | Give an account on cell cycle. | 8 |
| | (b) | Write a note on autocrine signaling. | 7 |

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Or

- (a) Give an account on G-protein coupled receptor. 8
- (b) Discuss in detail concept of cancer. 7
5. Write short notes on (any *three*) : 3×5=15
- (a) Cell theory
- (b) Lysosome
- (c) Cytoskeleton
- (d) Cilia and Flagella
- (e) Pinocytosis.

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