

AU-335

M.Sc. (Part—I) Semester—II (CBCS) Examination

BIOCHEMISTRY

(Cell Biology)

Paper—VII

Time : Three Hours]

[Maximum Marks : 80

Note :— All questions are compulsory and carry equal marks.

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| 1. | Explain the various models for organisation of membranes. | 16 |
| | OR | |
| | (a) Gap junction | 5 |
| | (b) Tight junction | 5 |
| | (c) Membrane charge density. | 6 |
| 2. | Describe the following : | |
| | (a) Structure of chloroplast membrane | 8 |
| | (b) Drug targeting and liposomes. | 8 |
| | OR | |
| | (c) Structure of mitochondrial membrane | 8 |
| | (d) Plasma membrane of RBCs. | 8 |
| 3. | Write in short on : | |
| | (a) Cell surface receptors | 6 |
| | (b) Cell signalling | 5 |
| | (c) Scatchard plot. | 5 |
| | OR | |
| | (d) Mechanism of bacterial chemotaxis. | 8 |
| | (e) Mechanism of adenylate cyclase. | 8 |
| 4. | Describe the ultra-structure of muscle. How calcium ions regulate contraction of muscle ? | 16 |
| | OR | |
| | (a) Mechanism of cross-bridge cycle | 6 |
| | (b) Spasmonemes | 5 |
| | (c) Sliding filament theory. | 5 |
| 5. | Give the structure and function of microtubules. Add note on sperm motility. | 16 |
| | OR | |
| | Write in detail about ameboid movement and pseudopod formation in detail. | 16 |

