

**KARPAGAM ACADEMY OF HIGHER EDUCATION**  
**Department of Biochemistry**  
**(Scheme of Examination for 2017- 2018 onwards)**  
**M.Sc., Biochemistry Curriculum**

| Course Code    | Name of the course                                              | Inst. Hrs | Marks |     |       | Exam/ Hours | Credit |
|----------------|-----------------------------------------------------------------|-----------|-------|-----|-------|-------------|--------|
|                |                                                                 |           | CIA   | ESE | Total |             |        |
| SEMESTER – I   |                                                                 |           |       |     |       |             |        |
| 17BCP101       | Chemistry of Biopolymers                                        | 4         | 40    | 60  | 100   | 3           | 4      |
| 17BCP102       | Enzymes and Microbial Technology                                | 4         | 40    | 60  | 100   | 3           | 4      |
| 17BCP103       | Bioinstrumentation and Good Laboratory Practices                | 4         | 40    | 60  | 100   | 3           | 4      |
| 17BCP104       | Cellular Biochemistry                                           | 4         | 40    | 60  | 100   | 3           | 4      |
| 17BCP105A      | Plant Biochemistry                                              | 4         | 40    | 60  | 100   | 3           | 4      |
| 17BCP105B      | Plant Biotechnology                                             |           |       |     |       |             |        |
| 17BCP105C      | Biopharmaceutics                                                |           |       |     |       |             |        |
| 17BCP111       | Practical – I Quantitative Estimation and Separation Techniques | 4         | 40    | 60  | 100   | 5           | 2      |
| 17BCP112       | Practical – II Plant Biochemistry and Microbiology              | 4         | 40    | 60  | 100   | 5           | 2      |
|                | Journal paper analysis and Presentation                         | 2         | -     | -   | -     | -           | -      |
|                | Semester total                                                  | 30        | 280   | 420 | 700   | -           | 24     |
| SEMESTER – II  |                                                                 |           |       |     |       |             |        |
| 17BCP201       | Regulation of Metabolic Pathways                                | 4         | 40    | 60  | 100   | 3           | 4      |
| 17BCP202       | Molecular Biology                                               | 4         | 40    | 60  | 100   | 3           | 4      |
| 17BCP203       | Developmental Genetics                                          | 4         | 40    | 60  | 100   | 3           | 4      |
| 17BCP204       | Bioinformatics                                                  | 4         | 40    | 60  | 100   | 3           | 4      |
| 17BCP205A      | Recombinant DNA Technology                                      | 4         | 40    | 60  | 100   | 3           | 4      |
| 17BCP205B      | Animal Tissue Culture                                           |           |       |     |       |             |        |
| 17BCP205C      | Genomics and Proteomics                                         |           |       |     |       |             |        |
| 17BCP211       | Practical – III Molecular Biology and Animal Biotechnology      | 4         | 40    | 60  | 100   | 5           | 2      |
| 17BCP212       | Practical – IV Biological Databases and Analysis                | 4         | 40    | 60  | 100   | 5           | 2      |
|                | Journal paper analysis and Presentation                         | 2         | -     | -   | -     | -           | -      |
|                | Semester total                                                  | 30        | 280   | 420 | 700   | -           | 24     |
| SEMESTER – III |                                                                 |           |       |     |       |             |        |

|                      |                                                         |           |            |             |             |   |           |
|----------------------|---------------------------------------------------------|-----------|------------|-------------|-------------|---|-----------|
| 17BCP301             | Immunology                                              | 4         | 40         | 60          | 100         | 3 | 4         |
| 17BCP302             | Clinical Biochemistry                                   | 4         | 40         | 60          | 100         | 3 | 4         |
| 17BCP303             | Endocrinology                                           | 4         | 40         | 60          | 100         | 3 | 4         |
| 17BCP304             | Drug Biochemistry                                       | 4         | 40         | 60          | 100         | 3 | 4         |
| 17BCP305A            | Biostatistics and Research Methodology                  | 4         | 40         | 60          | 100         | 3 | 4         |
| 17BCP305B            | Clinical Research and IPR                               |           |            |             |             |   |           |
| 17BCP305C            | Dietetic Management of Disease                          |           |            |             |             |   |           |
| 17BCP311             | Practical – V Clinical Enzymes And Immunology           | 4         | 40         | 60          | 100         | 5 | 2         |
| 17BCP312             | Practical – VI Clinical Biochemistry and Animal Studies | 4         | 40         | 60          | 100         | 5 | 2         |
|                      | Journal paper analysis and Presentation                 | 2         | -          | -           | -           | - | -         |
|                      | <b>Semester total</b>                                   | <b>30</b> | <b>280</b> | <b>420</b>  | <b>700</b>  |   | <b>24</b> |
| <b>SEMESTER – IV</b> |                                                         |           |            |             |             |   |           |
| 17BCP491             | Project and <i>Viva Voce</i>                            | -         | <b>80</b>  | <b>120</b>  | <b>200</b>  | - | <b>15</b> |
|                      | <b>Semester total</b>                                   | -         | <b>80</b>  | <b>120</b>  | <b>200</b>  | - | <b>15</b> |
|                      | <b>Grand Total</b>                                      |           | <b>920</b> | <b>1380</b> | <b>2300</b> |   | <b>87</b> |

| Core Elective – 1* (Theory) |                      | Core Elective – 2 (Theory)* |                            | Core Elective – 3(Theory)* |                                        |
|-----------------------------|----------------------|-----------------------------|----------------------------|----------------------------|----------------------------------------|
| 17BCP105-A                  | Plant Biochemistry   | 17BCP205-A                  | Recombinant DNA Technology | 17BCP305-A                 | Biostatistics and Research Methodology |
| 17BCP105-B                  | Plant tissue culture | 17BCP205-B                  | Animal Tissue Culture      | 17BCP305-B                 | Clinical Research and IPR              |
| 17BCP105-C                  | Biopharmacy          | 17BCP205-C                  | Genomics and Proteomics    | 17BCP305-C                 | Dietetic Management of Disease         |

**Continuous Internal Assessment Marks**

**End Semester Examination –MarksAllocation**

| Internal Mark Splitup (40 MARKS) |                                 |                |
|----------------------------------|---------------------------------|----------------|
| S.No                             | Description                     | Marks Allotted |
| 1                                | Attendance                      | 5              |
| 2                                | Journal presentation and report | 15             |
| 3                                | CIA I                           | 10             |
| 4                                | CIA II                          | 10             |
| <b>Total</b>                     |                                 | <b>40</b>      |

|   |                                                    |           |
|---|----------------------------------------------------|-----------|
| 1 | <b>Part A</b><br>20 X 1 = 20<br>Online Examination | 20        |
| 2 | <b>Part B</b><br>5 X 6 = 30                        | 30        |
| 3 | <b>Part C</b><br>1 X 10 = 10<br><b>Compulsory</b>  | 10        |
|   | <b>Total Marks</b>                                 | <b>60</b> |