

**JIIT NOIDA**  
**Bachelor of Science (B. Sc.) (Honours / Honours with Research)**  
in  
**Computer Science programme**  
(For students of 2022-26 batch)

**First Semester**

| S. N.        | Course Code | Course  | Contact hours |          |          |           | Credit    |
|--------------|-------------|---|---------------|----------|----------|-----------|-----------|
|              |             |   | L             | T        | P        | Total     |           |
| 1.           | 22B21MA111  | Major 1 (Introduction to Programming using C)     | 3             | 0        | 0        | 3         | 3         |
| 2.           | 22B25MA111  | Major 1 (Introduction to Programming using C-LAB) | 0             | 0        | 2        | 2         | 1         |
| 3.           | 22B21MA112  | Major 2 (Computer System Architecture)            | 3             | 1        | 0        | 4         | 4         |
| 4.           | 22B21MA113  | Minor 1 (Discrete Mathematical Structures)        | 3             | 1        | 0        | 4         | 4         |
| 5.           | 15B11PH111  | Multi-disciplinary-1 (Physics-1)                  | 3             | 1        | 0        | 4         | 4         |
| 6.           | 22B28HS111  | AEC1 (English)                                    | 1             | 0        | 2        | 3         | 2         |
| 7.           | 22B12HS111  | SEC1 (Life Skills and Effective Communications)   | 1             | 0        | 2        | 3         | 2         |
| 8.           | 22B28MA111  | VAC1 (Multimedia and Animation Workshop)          | 1             | 0        | 2        | 3         | 2         |
| <b>TOTAL</b> |             |   | <b>15</b>     | <b>3</b> | <b>8</b> | <b>26</b> | <b>22</b> |

**Second Semester**

| S. N.        | Course Code | Course  | Contact hours |          |           |           | Credit    |
|--------------|-------------|---|---------------|----------|-----------|-----------|-----------|
|              |             |   | L             | T        | P         | Total     |           |
| 1.           | 23B51CS121  | Major 3 (Object Oriented Programming using C++)     | 3             | 0        | 0         | 3         | 3         |
| 2.           | 23B51CS521  | Major 3 (Object Oriented Programming using C++-LAB) | 0             | 0        | 2         | 2         | 1         |
| 3.           | 23B21MA111  | Major 4 (Data Structures)                           | 3             | 0        | 0         | 3         | 3         |
| 4.           | 23B25MA111  | Major 4 (Data Structures -LAB)                      | 0             | 0        | 2         | 2         | 1         |
| 5.           | 23B21MA112  | Minor 2 (Calculus)                                  | 3             | 1        | 0         | 4         | 4         |
| 6.           | 15B11PH211  | Multi-disciplinary-2 (Physics-2)                    | 3             | 1        | 0         | 4         | 4         |
| 7.           | 23B12BT111  | AEC2 (Environmental Science)                        | 2             | 0        | 0         | 2         | 2         |
| 8.           | 23B56CS123  | SEC2 (OOAD Project Based Learning)                  | 0             | 0        | 4         | 4         | 2         |
| 9.           | 23B58CS125  | VAC2 (Unix Workshop)                                | 1             | 0        | 2         | 3         | 2         |
| <b>TOTAL</b> |             |   | <b>15</b>     | <b>2</b> | <b>10</b> | <b>27</b> | <b>22</b> |

### Third Semester

| S.N. | Course Code | Course   | Contact hours |          |           |           | Credit    |
|------|-------------|--|---------------|----------|-----------|-----------|-----------|
|      |             |  | L             | T        | P         | Total     |           |
| 1.   | 23B21MA211  | Major 5 (Operating Systems)                    | 3             | 0        | 0         | 3         | 3         |
| 2.   | 23B25MA211  | Major 5 (Operating Systems-Lab)                | 0             | 0        | 2         | 2         | 1         |
| 3.   | 23B21MA212  | Major 6 (Web Technology)                       | 3             | 0        | 0         | 3         | 3         |
| 4.   | 23B25MA212  | Major 6 (Web Technology-LAB)                   | 0             | 0        | 2         | 2         | 1         |
| 5.   | 15B11MA302  | Minor 3 (Probability and Statistics)           | 3             | 1        | 0         | 4         | 4         |
| 6.   | 23B25HS211  | Multi-disciplinary-3(Communication Skills Lab) | 0             | 0        | 2         | 2         | 1         |
| 7.   | 23B21HS211  | AEC3 (English Literature)                      | 2             | 0        | 0         | 2         | 2         |
| 8.   | 23B51CS211  | SEC3 (Web Development- Project Based Learning) | 0             | 0        | 4         | 4         | 2         |
| 9.   | 23B51CS212  | VAC3 (Competitive Programming Workshop)        | 1             | 0        | 2         | 3         | 2         |
|      |             | <b>TOTAL</b>                                   | <b>12</b>     | <b>1</b> | <b>12</b> | <b>25</b> | <b>19</b> |

### Fourth Semester

| S. N. | Course Code | Course  | Contact hours |          |           |           | Credit    |
|-------|-------------|---|---------------|----------|-----------|-----------|-----------|
|       |             |   | L             | T        | P         | Total     |           |
| 1.    | xxxxxxxxxxx | Major 7 (Open Source Programming)               | 3             | 0        | 0         | 3         | 3         |
| 2.    | xxxxxxxxxxx | Major 7 (Open Source Programming-Lab)           | 0             | 0        | 2         | 2         | 1         |
| 3.    | xxxxxxxxxxx | Major 8 (Data Base Management System)           | 3             | 0        | 0         | 3         | 3         |
| 4.    | xxxxxxxxxxx | Major 8 (Data Base Management System-Lab)       | 0             | 0        | 2         | 2         | 1         |
| 5.    | xxxxxxxxxxx | Major 9 (Design and Analysis of Algorithms)     | 3             | 0        | 0         | 3         | 3         |
| 6.    | xxxxxxxxxxx | Major 9 (Design and Analysis of Algorithms-Lab) | 0             | 0        | 2         | 2         | 1         |
| 7.    | xxxxxxxxxxx | Minor 4 (Linear Algebra)                        | 3             | 1        | 0         | 4         | 4         |
| 8.    | xxxxxxxxxxx | AEC4 (Sustainable Development)                  | 2             | 0        | 0         | 2         | 2         |
| 9.    | xxxxxxxxxxx | SEC4 (Open Source- Project Based Learning)      | 0             | 0        | 6         | 6         | 3         |
|       |             | <b>TOTAL</b>                                    | <b>14</b>     | <b>1</b> | <b>12</b> | <b>27</b> | <b>21</b> |

### Fifth Semester

| S. N. | Course Code | Course  | Contact hours |          |           |           | Credit    |
|-------|-------------|---|---------------|----------|-----------|-----------|-----------|
|       |             |   | L             | T        | P         | Total     |           |
| 1.    | xxxxxxxxxx  | Major 10 (AI and Machine Learning)            | 3             | 0        | 0         | 3         | 3         |
| 2.    | xxxxxxxxxx  | Major 10 (AI and Machine Learning-Lab)        | 0             | 0        | 2         | 2         | 1         |
| 3.    | xxxxxxxxxx  | Major 11 (Distributed and Parallel Computing) | 3             | 0        | 0         | 3         | 3         |
| 4.    | xxxxxxxxxx  | Major 12 (Computer Networks)                  | 3             | 1        | 0         | 4         | 4         |
| 5.    | xxxxxxxxxx  | Major 12 (Computer Networks-Lab)              | 0             | 0        | 2         | 2         | 1         |
| 6.    | xxxxxxxxxx  | Minor 5 (Number Theory and Cryptography)      | 3             | 1        | 0         | 4         | 4         |
| 7.    | xxxxxxxxxx  | Summer Internship                             | 0             | 0        | 8         | 8         | 4         |
|       |             | <b>TOTAL</b>                                  | <b>12</b>     | <b>2</b> | <b>12</b> | <b>26</b> | <b>20</b> |

### Sixth Semester

| S. N. | Course Code | Course                                   | Contact hours |          |          |           | Credit    |
|-------|-------------|--|---------------|----------|----------|-----------|-----------|
|       |             |  | L             | T        | P        | Total     |           |
| 1.    | xxxxxxxxxx  | Major 13 (Cloud Computing)               | 3             | 0        | 0        | 3         | 3         |
| 2.    | xxxxxxxxxx  | Major 13 (Cloud Computing-Lab)           | 0             | 0        | 2        | 2         | 1         |
| 3.    | xxxxxxxxxx  | Major 14(Fundamentals of Soft Computing) | 3             | 1        | 0        | 4         | 4         |
| 4.    | xxxxxxxxxx  | Major 15 (Java Programming)              | 3             | 0        | 0        | 3         | 3         |
| 5.    | xxxxxxxxxx  | Major 15 (Java Programming-Lab)          | 0             | 0        | 2        | 2         | 1         |
| 6.    | xxxxxxxxxx  | Major 16 (Software Engineering)          | 3             | 0        | 0        | 3         | 3         |
| 7.    | xxxxxxxxxx  | Major 16 (Software Engineering-Lab)      | 0             | 0        | 2        | 2         | 1         |
| 8.    | xxxxxxxxxx  | Minor 6 (Operations Research)            | 3             | 1        | 0        | 4         | 4         |
|       |             | <b>TOTAL</b>                             | <b>15</b>     | <b>2</b> | <b>6</b> | <b>23</b> | <b>20</b> |

## Seventh Semester

| S. N. | Course Code | Course  | Contact hours |          |          |           | Credit    |
|-------|-------------|---|---------------|----------|----------|-----------|-----------|
|       |             |   | L             | T        | P        | Total     |           |
| 1.    | xxxxxxxxxx  | Major 17 (Introduction to Deep Learning)                  | 3             | 1        | 0        | 4         | 4         |
| 2.    | xxxxxxxxxx  | Major 18 (Research Methodology)                           | 3             | 1        | 0        | 4         | 4         |
| 3.    | xxxxxxxxxx  | Major 19 (Internet of Things: Design and Development)     | 3             | 0        | 0        | 3         | 3         |
| 4.    | xxxxxxxxxx  | Major 19 (Internet of Things: Design and Development-Lab) | 0             | 0        | 2        | 2         | 1         |
| 5.    | xxxxxxxxxx  | Major 20 (Computer Security)                              | 3             | 0        | 0        | 3         | 3         |
| 6.    | xxxxxxxxxx  | Major 20 (Computer Security-Lab)                          | 0             | 0        | 2        | 2         | 1         |
| 7.    | xxxxxxxxxx  | Minor 7 (Numerical Techniques)                            | 3             | 0        | 0        | 3         | 3         |
| 8.    | xxxxxxxxxx  | Minor 7 (Numerical Techniques Lab)                        | 0             | 0        | 2        | 2         | 1         |
|       |             | <b>TOTAL</b>  | <b>15</b>     | <b>3</b> | <b>4</b> | <b>22</b> | <b>20</b> |

## Eighth Semester

| S. N. | Course Code | Course   | Contact hours |          |           |           | Credit    |
|-------|-------------|--|---------------|----------|-----------|-----------|-----------|
|       |             |  | L             | T        | P         | Total     |           |
| 1.    | xxxxxxxxxx  | Major 21 (Introduction to Blockchain Technologies) | 3             | 1        | 0         | 4         | 4         |
| 2.    | xxxxxxxxxx  | Minor 8 (Data Science)                             | 3             | 1        | 0         | 4         | 4         |
| 3.    | xxxxxxxxxx  | Dissertation                                       | 0             | 0        | 24        | 24        | 12        |
|       |             | <b>TOTAL</b>                                       | <b>6</b>      | <b>2</b> | <b>24</b> | <b>32</b> | <b>20</b> |

**Total Credits:**

**164**