# SCHEME OF EXAMINATION 

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## DETAILED SYLLABUS

For

## BACHELOR OF COMPUTER APPLICATIONS (BCA) DEGREE

## GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY SECTOR-16C, DWARKA, DELHI

## Bachelor of Computer Applications

## FIRST SEMESTER EXAMINATION

| Code No. | Paper | L | T/P | Credits | Marks Internal | Marks External |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| THEROY PAPERS |  |  |  |  |  |  |
| BCA 101 | Mathematics - I | 3 | 1 | 4 | 25 | 75 |
| BCA 103 | Technical Communication | 3 | 0 | 3 | 25 | 75 |
| BCA 105 | Introduction to <br> Programming <br> Language using C | 3 | 1 | 4 | 25 | 75 |
| BCA 107 | Introduction to Computers \& IT | 3 | 1 | 4 | 25 | 75 |
| BCA 109 | Physics | 3 | 1 | 4 | 25 | 75 |
| PRACTICALS |  |  |  |  |  |  |
| BCA 151 | Practical - I C Prog. <br> Lab | 0 | 6 | 3 | 40 | 60 |
| BCA 153 | Practical - II IT Lab | 0 | 6 | 3 | 40 | 60 |
| $\begin{aligned} & \text { BCA } \\ & 155^{*} \end{aligned}$ | Communication Skills | 2 | 0 | 2 | 100 | ------ |
|  | Total | 17 | 16 | 27 | 305 | 495 |

## *NUES

TOTAL MARKS : 800

## Bachelor of Computer Applications

## SECOND SEMESTER EXAMINATION

| Code No. | Paper | $\mathbf{L}$ | T/P | Credits | Marks <br> Internal | Marks <br> External |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| THEROY PAPERS |  |  |  |  |  | 3 |
|  |  |  |  |  |  |  |
| BCA 102 | Mathematics - II | 1 | 4 | 25 | 75 |  |
| BCA 104 | Principles of <br> Management | 3 | 0 | 3 | 25 | 75 |
| BCA 106 | Digital Electronics | 3 | 1 | 4 | 25 | 75 |
| BCA 108 | Data Structure Using C | 3 | 1 | 4 | 25 | 75 |
| BCA 110 | Database Management <br> System | 3 | 1 | 4 | 25 | 75 |
| PRACTICALS |  |  |  |  |  |  |
| BCA 152 | Practical - III DS Lab | 0 | 6 | 3 | 40 | 60 |
| BCA 154 | Practical - IV DBMS <br> Lab | 0 | 6 | 3 | 40 | 60 |
| BCA <br> 156* | Cyber Ethics | 2 | 0 | 2 | 100 | ----- |

*NUES<br>TOTAL MARKS: 800

## Bachelor of Computer Applications

## THIRD SEMESTER EXAMINATION

| Code No. | Paper | $\mathbf{L}$ | $\mathbf{T} / \mathbf{P}$ | Credits | Marks <br> Internal | Marks <br> External |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| THEROY PAPERS |  |  |  |  |  | 3 |
|  |  |  |  |  |  |  |
| BCA 201 | Mathematics - III | 3 | 4 | 25 | 75 |  |
| BCA 203 | Computer Architecture | 3 | 1 | 4 | 25 | 75 |
| BCA 205 | Front End Design Tool <br> VB.Net | 3 | 1 | 4 | 25 | 75 |
| BCA 207 | Principles of <br> Accounting | 3 | 0 | 3 | 25 | 75 |
| BCA 209 | Object Oriented <br> Programming using <br> C++. | 3 | 1 | 4 | 25 | 75 |
| PRACTICALS |  |  |  |  |  |  |
| BCA 251 | Practical - V .NET Lab | 0 | 6 | 3 | 40 | 60 |
| BCA 253 | Practical - VI C++ Lab | 0 | 6 | 3 | 40 | 60 |
| BCA <br> 255* | Software Development <br> Skills | 2 | 0 | 2 | 100 | ----- |
|  | Total | $\mathbf{1 7}$ | $\mathbf{1 6}$ | $\mathbf{2 7}$ | $\mathbf{3 0 5}$ | $\mathbf{4 9 5}$ |

## *NUES

TOTAL MARKS: 800

## Bachelor of Computer Applications

## FOURTH SEMESTER EXAMINATION

| Code No. | Paper | $\mathbf{L}$ | T/P | Credits | Marks <br> Internal | Marks <br> External |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| THEROY PAPERS |  |  |  |  |  |  |
| BCA 202 | Mathematics - IV | 3 | 1 | 4 | 25 | 75 |
| BCA 204 | Web Technologies | 3 | 1 | 4 | 25 | 75 |
| BCA 206 | Java Programming | 3 | 1 | 4 | 25 | 75 |
| BCA 208 | Software Engineering | 3 | 1 | 4 | 25 | 75 |
| BCA 210 | Computer Networks | 3 | 1 | 4 | 25 | 75 |
| PRACTICALS |  |  |  |  |  |  |
| BCA 252 | Practical - VII Java <br> Lab | 0 | 6 | 3 | 40 | 60 |
| BCA 254 | Practical - VIII Web <br> Tech Lab | 0 | 6 | 3 | 40 | 60 |
| BCA <br> 256* | Personality <br> Development Skills | 2 | 0 | 2 | 100 | ------ |
|  | Total | $\mathbf{1 7}$ | $\mathbf{1 3}$ | $\mathbf{2 8}$ | $\mathbf{3 0 5}$ | $\mathbf{4 9 5}$ |

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TOTAL MARKS: 800
Summer Training will be held for 4 weeks after the end of fourth semester.
Viva-Voce will be conducted in fifth semester.

## Bachelor of Computer Applications

## FIFTH SEMESTER EXAMINATION

| Code No. | Paper | L | T/P | Credits | Marks Internal | Marks External |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| THEROY PAPERS |  |  |  |  |  |  |
| BCA 301 | Operating System | 3 | 1 | 4 | 25 | 75 |
| BCA 303 | Computer Graphics | 3 | 1 | 4 | 25 | 75 |
| BCA 305 | E- Commerce | 3 | 1 | 4 | 25 | 75 |
| ***ELECTIVES (Select any One) |  |  |  |  |  |  |
| BCA 307 | Software Testing | 3 | 1 | 4 | 25 | 75 |
| BCA 309 | Microprocessor | 3 | 1 | 4 | 25 | 75 |
| BCA 311 | Advance Computer Networks | 3 | 1 | 4 | 25 | 75 |
| BCA 313 | Web Based Programming | 3 | 1 | 4 | 25 | 75 |
| BCA 315 | Business Economics | 3 | 1 | 4 | 25 | 75 |
| PRACTICALS |  |  |  |  |  |  |
| BCA 351 | Practical - IX CG Lab | 0 | 8 | 4 | 40 | 60 |
| $\begin{aligned} & \text { BCA } \\ & 355^{*} \end{aligned}$ | Summer Project/ Training | 0 | 0 | 2 | 100 | -- |
| BCA 357 | Minor Project | --- | 8 | 4 | 40 | 60 |
|  | Total | 12 | 20 | 26 | 280 | 420 |

*Evaluation will be based on Summer Training held after fourth semester and will be conducted by the college committee only.
*** Any Elective Subject will be offered if minimum $1 / 3 \mathrm{rd}$ of the total strength of students in the class will opt for it.

## **NUES

TOTAL MARKS: 700

# Bachelor of Computer Applications 

## SIXTH SEMESTER EXAMINATION

| Code No. | Paper | L | T/P | Credits | Marks Internal | Marks External |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| THEROY PAPERS |  |  |  |  |  |  |
| BCA 302 | Data Ware Housing \& Data Mining | 3 | 1 | 4 | 25 | 75 |
| BCA 304 | Mobile Computing | 3 | 1 | 4 | 25 | 75 |
| BCA 306 | Linux Environment | 3 | 1 | 4 | 25 | 75 |
| ***ELECTIVES (Select any One) |  |  |  |  |  |  |
| BCA 308 | Multimedia \& Its Applications | 3 | 1 | 4 | 25 | 75 |
| BCA 310 | Bio Informatics | 3 | 1 | 4 | 25 | 75 |
| BCA 312 | Artificial Intelligence | 3 | 1 | 4 | 25 | 75 |
| BCA 314 | Network Security | 3 | 1 | 4 | 25 | 75 |
| BCA 316 | Network Programming | 3 | 1 | 4 | 25 | 75 |
| PRACTICALS |  |  |  |  |  |  |
| BCA 352 | Practical - X Linux Lab | 0 | 4 | 2 | 40 | 60 |
| BCA 356 | Major Project | -- | 10 | 5 | 40 | 60 |
| $\begin{aligned} & \text { BCA } \\ & 358^{* *} \end{aligned}$ | Seminar | 2 | 0 | 2 | 100 |  |
|  | Total | 14 | 18 | 25 | 280 | 420 |

## Note:

1. $\quad$ The total number of the credits of the BCA programme $=160$.
2. Each student shall be required to appear for examinations in all courses. However, for the award of the degree a student shall be required to earn the minimum of 150 credits.

Total Marks : 700
*** Any Elective Subject will be offered if minimum $1 / 3$ rd of the total strength of students in the class will opt for it.

