

The following shall be the courses of the studies under CBCS pattern

B. A. – I C B C S P A T T E R N (2018-19)

S E M E S T E R – I (Duration – 6 Months)

| Sr. No | Course Title | Teaching Scheme | | | | | | Examination scheme | | | | | | | | | | | |
|---------------------------------------|--------------|-----------------|-------|-----------|----------------------------------|-------|------------|--------------------|------|-------|------------|-----------|-------|------------|------------|--|------|-------|--|
| | | Theory | | | Practical | | | Theory | | | Internal | | | Total | | Practical | | | |
| | | No. of lectures | Hours | Credits | No. of Lectures | Hours | Credits | Max. | Min. | Hours | Max. | Min. | Hours | Max. | Min. | Max. | Min. | Hours | |
| 1 | DSC-A | 4 | 3.2 | 4 | No Practical Except Home Science | | | 40 | 14 | 2 | 10 | 4 | 0.5 | 50 | 18 | Practical examination is conducted Semester wise | | | |
| 2 | DSC-A | 4 | 3.2 | 4 | | | | 40 | 14 | 2 | 10 | 4 | 0.5 | 50 | 18 | | | | |
| 3 | DSC-A | 4 | 3.2 | 4 | | | | 40 | 14 | 2 | 10 | 4 | 0.5 | 50 | 18 | | | | |
| 4 | DSC-A | 4 | 3.2 | 4 | | | | 40 | 14 | 2 | 10 | 4 | 0.5 | 50 | 18 | | | | |
| 5 | GEC-A | 4 | 3.2 | 4 | | | | 40 | 14 | 2 | 10 | 4 | 0.5 | 50 | 18 | | | | |
| 6 | AECC-A | 4 | 3.2 | 4 | | | | 40 | 14 | 2 | 10 | 4 | 0.5 | 50 | 18 | | | | |
| | Total | 24 | 19.2 | 24 | | | | 240 | | | | 60 | - | | 300 | | - | | |
| Semester-II(duration 6 months) | | | | | | | | | | | | | | | | | | | |
| 7 | DSC-B | 4 | 3.2 | 4 | No Practical Except Home Science | | | 40 | 14 | 2 | 10 | 4 | 0.5 | 50 | 18 | Practical examination is conducted Semester wise | | | |
| 8 | DSC-B | 4 | 3.2 | 4 | | | | 40 | 14 | 2 | 10 | 4 | 0.5 | 50 | 18 | | | | |
| 9 | DSC-B | 4 | 3.2 | 4 | | | | 40 | 14 | 2 | 10 | 4 | 0.5 | 50 | 18 | | | | |
| 10 | DSC-B | 4 | 3.2 | 4 | | | | 40 | 14 | 2 | 10 | 4 | 0.5 | 50 | 18 | | | | |
| 11 | GEC-B | 4 | 3.2 | 4 | | | | 40 | 14 | 2 | 10 | 4 | 0.5 | 50 | 18 | | | | |
| 12 | AECC-B | 4 | 3.2 | 4 | | | | 40 | 14 | 2 | 10 | 4 | 0.5 | 50 | 18 | | | | |
| | | 24 | 19.2 | 24 | | | | 240 | | | | 60 | - | | 300 | | - | | |
| | Total | 48 | 38.4 | 48 | | | 480 | | | | 120 | | | 600 | | | | | |

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|---|--|
| • Student contact hours per week : 19.2 Hours (Min.) | • Total Marks for B.A.-I : 600 |
| • Theory and Practical Lectures : 48 Minutes Each | • Total Credits for B.A.-I (Semester I & II) : 48 |
| <ul style="list-style-type: none"> • AECC- Ability Enhancement Compulsory Course (1A & 1B)- English, GEC-Generic Elective Course • DSC-Discipline Specific Core Course. (for Semester I-A and for semester II-B), • Course list as per enclosed Annexure. <i>Separate passing is mandatory for Theory, Internal and Practical.</i> | |
| • Practical Examination will be conducted annually. | |

Subject Codes for ARTS

| Sr. No. | Name of the Subject | Subject code | Sem-I DSC-A | Sem-II DSC-B | Sem-III DSC-C | Sem-IV DSC-D | Sem-V DSE-E | Sem-VI DSE-F |
|---------|----------------------|--------------|--|--------------|---|--------------|----------------|----------------|
| 1 | English | 1011 | AECC-1011A | AECC-1011B | AECC-1011C | AECC-1011D | AECC-1011E | AECC-1011F |
| 2 | Hindi | 1012 | GEC-1012A | GEC-1012B | GEC- Generic Elective Course (Any one from three for first and second semester only) | | | |
| 3 | Marathi | 1013 | GEC-1013A | GEC-1013B | | | | |
| 4 | STD | 1014 | GEC-1014A | GEC-1014B | | | | |
| 5 | Marathi | 1015 | DSC-1015A | DSC-1015B | DSC-1015C1 | DSC-1015D1 | DSE -1015E1 TO | DSE -1015F1 TO |
| | | | | | DSC-1015C2 | DSC-1015D2 | DSE -1015E5 | DSE-1015 F5 |
| 6 | Hindi | 1016 | DSC-1016A | DSC-1016B | DSC-1016C1 | DSC-1016D1 | DSE -1016E1 TO | DSE -1016F1 TO |
| | | | | | DSC-1016C2 | DSC-1016D2 | DSE -1016E5 | DSE-1016 F5 |
| 7 | English | 1017 | DSC-1017A | DSC-1017B | DSC-1017C1 | DSC-1017D1 | DSE -1017E1 TO | DSE -1017F1 TO |
| | | | | | DSC-1017C2 | DSC-1017D2 | DSE -1017E5 | DSE-1017 F5 |
| 8 | Economics | 1018 | DSC-1018A | DSC-1018B | DSC-1018C1 | DSC-1018D1 | DSE -1018E1 TO | DSE -1018F1 TO |
| | | | | | DSC-1018C1 | DSC-1018D2 | DSE -1018E5 | DSE -1018F5 |
| 9 | Political Science | 1019 | DSC-1019A | DSC-1019B | DSC-1019C1 | DSC-1019 D1 | DSE -1019E1 TO | DSE -1019F TO |
| | | | | | DSC-1019C2 | DSC-1019 D1 | DSE -1019E5 | DSE -1019F |
| 10 | History | 1020 | DSC-1020A | DSC-1020B | DSC-1020C1 | DSC-1020D1 | DSE -1020E1 TO | DSE -1020F TO |
| | | | | | DSC-1020C2 | DSC-1020D1 | DSE -1020E5 | DSE -1020F |
| 11 | Sociology | 1021 | DSC-1021A | DSC-1021B | DSC-1021C1 | DSC-1021D1 | DSE -1021E1 TO | DSE -1021F TO |
| | | | | | DSC-1021C2 | DSC-1021D2 | DSE -1021E5 | DSE -1021F |
| 12 | Geography | 1022 | DSC-1022A | DSC-1022B | DSC-1022C1 | DSC-1022D1 | DSE -1022E1 TO | DSE -1022F TO |
| | | | | | DSC-1022C2 | DSC-1022D2 | DSE -1022E5 | DSE -1022F |
| 13 | Home Science | 1023 | DSC-1023A | DSC-1023B | DSC-1023C1 | DSC-1023D1 | DSE -1023E1 TO | DSE -1023F TO |
| | | | | | DSC-1023C2 | DSC-1023D2 | DSE -1023E5 | DSE -1023F |
| 14 | Logic | 1024 | IDS-Inter Disciplinary Subject (Any one from three for third and fourth semester Only) | | IDS-1024C | IDS-1024D | | |
| 15 | HSRM | 1025 | | | IDS-1025C | IDS 1025D | | |
| 16 | Geography of Tourism | 1026 | | | IDS-1026C | IDS 1026D | | |

The following shall be the courses of the studies under CBCS pattern

B. Com. – I C B C S P A T T E R N (2018-19)

S E M E S T E R – I (Duration – 6 Months)

| Sr. No | Course Title | Teaching Scheme | | | | | | Examination scheme | | | | | | | | | | |
|---------------------------------------|--------------|-----------------|-------|-----------|---------------------|-------|---------|--------------------|------|-------|------------|------|-------|------------|------|-----------|------|-------|
| | | Theory | | | Practical | | | Theory | | | Internal | | | Total | | Practical | | |
| | | No. of lectures | Hours | Credits | No. of Lectures | Hours | Credits | Max. | Min. | Hours | Max. | Min. | Hours | Max. | Min. | Max. | Min. | Hours |
| 1 | DSC-A | 4 | 3.2 | 4 | No Practical | | | 40 | 14 | 2 | 10 | 4 | 0.5 | 50 | 18 | | | |
| 2 | DSC-A | 4 | 3.2 | 4 | | | | 40 | 14 | 2 | 10 | 4 | 0.5 | 50 | 18 | | | |
| 3 | DSC-A | 4 | 3.2 | 4 | | | | 40 | 14 | 2 | 10 | 4 | 0.5 | 50 | 18 | | | |
| 4 | GEC-A | 4 | 3.2 | 4 | | | | 40 | 14 | 2 | 10 | 4 | 0.5 | 50 | 18 | | | |
| 5 | GEC-A | 4 | 3.2 | 4 | | | | 40 | 14 | 2 | 10 | 4 | 0.5 | 50 | 18 | | | |
| 6 | AECC-1A | 4 | 3.2 | 4 | | | | 40 | 14 | 2 | 10 | 4 | 0.5 | 50 | 18 | | | |
| | Total | 24 | 19.2 | 24 | | | | 240 | | | 60 | - | | 300 | - | | | |
| Semester-II(duration 6 months) | | | | | | | | | | | | | | | | | | |
| 7 | DSC-B | 4 | 3.2 | 4 | No Practical | | | 40 | 14 | 2 | 10 | 4 | 0.5 | 50 | 18 | | | |
| 8 | DSC-B | 4 | 3.2 | 4 | | | | 40 | 14 | 2 | 10 | 4 | 0.5 | 50 | 18 | | | |
| 9 | DSC-B | 4 | 3.2 | 4 | | | | 40 | 14 | 2 | 10 | 4 | 0.5 | 50 | 18 | | | |
| 10 | GEC-B | 4 | 3.2 | 4 | | | | 40 | 14 | 2 | 10 | 4 | 0.5 | 50 | 18 | | | |
| 11 | GEC-B | 4 | 3.2 | 4 | | | | 40 | 14 | 2 | 10 | 4 | 0.5 | 50 | 18 | | | |
| 12 | AECC-1B | 4 | 3.2 | 4 | | | | 40 | 14 | 2 | 10 | 4 | 0.5 | 50 | 18 | | | |
| | | 24 | 19.2 | 24 | | | | 240 | | | 60 | - | | 300 | - | | | |
| | Total | 48 | 38.4 | 48 | | | | 480 | | | 120 | | | 600 | | | | |

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|---|---|
| <ul style="list-style-type: none"> • Student contact hours per week : 19.2 Hours (Min.) • Theory and Practical Lectures : 48 Minutes Each | <ul style="list-style-type: none"> • Total Marks for B.Com.-I : 600 • Total Credits for B.Com.-I (Semester I & II) : 48 |
| <ul style="list-style-type: none"> • AECC- Ability Enhancement Compulsory Course (1A & 1B)- English, GEC-Generic Elective Course • CC- Core Course. (for Semester I--A and for semester II--B), • Course list as per enclosed Annexure. Separate passing is mandatory for Theory, Internal and Practical. • Course list as per enclosed Annexure. Separate passing is mandatory for Theory, and Internal | |

For Commerce

CC-Core course DSE-Discipline Specific Elective Course (Any one of two)

GEC-Generic Elective Course (Any one of two)

AECC – Ability Enhancement Compulsory Course

| Sr. No | Name of the Subject | Sub. code | Sem-I CC-A | Sem-II CC-B | Sem-III CC-C | Sem-IV CC-D | Sem-V CC-E | Sem-VI CC-E |
|--------|------------------------------------|-----------|---------------|----------------|--|----------------|---------------|----------------|
| 1 | English for business Communication | 1040 | AECC-1040A | AECC-1040B | AECC-1040C | AECC-1040D | - | - |
| 2 | Principles of Business Management | 1041 | DSC-1041A | DSC-1041B | - | - | - | - |
| 3 | Principles of Marketing | 1042 | GEC-1042A | GEC-1042B | - | - | - | - |
| 4 | Financial Accounting | 1043 | DSC-1043A | DSC-1043B | - | - | - | - |
| 5 | Business Economics | 1044 | DSC-1044A | DSC-1044B | - | - | - | - |
| 6 | Business Mathematics | 1045 | GEC-1045A | GEC-1045B | GEC-Generic Elective Course (Any one of two) | | | |
| 7 | Insurance | 1046 | GEC-1046A | GEC-1046B | | | | |
| 8 | Fundamentals of Entrepreneurship | 1047 | - | - | CC-1047C | CC-1047D | - | - |
| 9 | Corporate accounting | 1048 | - | - | CC-1048C | CC-1048D | - | - |
| 10 | Business Economics | 1049 | - | - | CC-1049C | CC-1049D | - | - |
| 11 | Money and financial System | 1050 | - | - | CC-1050C | CC-1050D | - | - |

| | | | | | | | | |
|----|--------------------------------|------|---|---|----------|----------|-----------|-----------|
| 12 | Business statistics | 1051 | - | - | CC-1051C | CC-1051D | - | - |
| 13 | Modern management Practices | 1052 | - | - | - | - | CC-1052E | CC-1052F |
| 14 | Business Regularity Frame work | 1053 | - | - | - | - | CC-1053E | CC-1053F |
| 15 | Business Environment | 1054 | - | - | - | - | CC-1054E | CC-1054F |
| 16 | Cooperative Development | 1055 | - | - | - | - | CC-55E | CC-55F |
| 17 | Advanced Accounting | 1056 | DSE-Discipline Specific Elective Course (Any one of two) | | | | DSE-1056E | DSE-1056F |
| 18 | Industrial Management | 1057 | | | | | DSE-1057E | DSE-1057F |

The following shall be the courses of the studies under CBCS pattern

B. Sc. – I C B C S P A T T E R N (2018-19)

| SEMESTER – I (Duration – 6 Months) | | | | | | | | | | | | | | | | | | |
|------------------------------------|--------------|-----------------|-------|-----------|-----------------|-------|-----------|--------------------|------|-------|----------|------|-------|-------|------|---------------------------------|------|-------|
| Sr. No | Course Title | Teaching Scheme | | | | | | Examination scheme | | | | | | | | | | |
| | | Theory | | | Practical | | | Theory | | | Internal | | | Total | | Practical | | |
| | | No. of lectures | Hours | Credits | No. of Lectures | Hours | Credits | Max. | Min. | Hours | Max. | Min. | Hours | Max. | Min. | Max. | Min. | Hours |
| 1 | DSC-A | 5 | 4 | 4 | 4 | 3.2 | 2 | 80 | 28 | 3 | 20 | 7 | 1 | 100 | 35 | Practical examination is annual | | |
| 2 | DSC-A | 5 | 4 | 4 | 4 | 3.2 | 2 | 80 | 28 | 3 | 20 | 7 | 1 | 100 | 35 | | | |
| 3 | DSC-A | 5 | 4 | 4 | 4 | 3.2 | 2 | 80 | 28 | 3 | 20 | 7 | 1 | 100 | 35 | | | |
| 4 | DSC-A | 5 | 4 | 4 | 4 | 3.2 | 2 | 80 | 28 | 3 | 20 | 7 | 1 | 100 | 35 | | | |
| 5 | AECC-1A | 4 | 3.2 | 4 | - | - | - | 40 | 14 | 2 | 10 | 4 | 0.5 | 50 | 18 | - | - | - |
| | Total | 24 | 19.2 | 20 | 16 | 12.8 | 8 | 360 | | | 90 | - | | 450 | - | | | |
| Semester-II(duration 6 months) | | | | | | | | | | | | | | | | | | |
| 6 | DSC-B | 5 | 4 | 4 | 4 | 3.2 | 2 | 80 | 28 | 3 | 20 | 7 | 1 | 100 | 35 | 50 | 18 | 3.2 |
| 7 | DSC-B | 5 | 4 | 4 | 4 | 3.2 | 2 | 80 | 28 | 3 | 20 | 7 | 1 | 100 | 35 | 50 | 18 | 3.2 |
| 8 | DSC-B | 5 | 4 | 4 | 4 | 3.2 | 2 | 80 | 28 | 3 | 20 | 7 | 1 | 100 | 35 | 50 | 18 | 3.2 |
| 9 | DSC-B | 5 | 4 | 4 | 4 | 3.2 | 2 | 80 | 28 | 3 | 20 | 7 | 1 | 100 | 35 | 50 | 18 | 3.2 |
| 10 | AECC-1B | 4 | 3.2 | 2 | - | - | - | 40 | 14 | 2 | 10 | 4 | 0.5 | 50 | 18 | - | - | - |
| | Total | 24 | 19.2 | 20 | 16 | 12.8 | 8 | 360 | - | - | - | - | - | 450 | | 200 | - | - |
| | Total | 48 | 38.4 | 40 | 32 | 25.6 | 16 | | | | | | | 900 | | | | |

- Student contact hours per week : **32** Hours (Min.)
 - Theory and Practical Lectures : 48 Minutes Each
 - AECC- Ability Enhancement Compulsory Course (1A & 1B)- English
 - DSC-Discipline Specific Core Course. (for Semester I--A and for semester II--B)
 - Course list as per enclosed Annexure. **Separate passing is mandatory for Theory, Internal and Practical.**
 - Practical Examination will be conducted annually for 50 Marks per DSC course (subject).
- Total Marks for B.Sc.-I (Including English) : **1100**
 - Total Credits for B.Sc.-I (Semester I & II) : **56**

Subject code For B.Sc.I for Sem I—A and Sem II—B

| Sr.No. | Name of the subject | Subject code | Sem-I DSC-A | Sem-II DSC-B |
|---------------|----------------------------|---------------------|------------------------|-------------------------|
| 1 | Physics | 1001 | DSC-1001A | DSC-1001B |
| 2 | Chemistry | 1002 | DSC-1002A | DSC-1002B |
| 3 | Mathematics | 1003 | DSC-1003A | DSC-1003B |
| 4 | Statistics | 1004 | DSC-1004A | DSC-1004B |
| 5 | Electronics | 1005 | DSC-1005A | DSC-1005B |
| 6 | Computer science | 1006 | DSC-1006A | DSC-1006B |
| 7 | Botany | 1007 | DSC-1007A | DSC-1007B |
| 8 | zoology | 1008 | DSC-1008A | DSC-1008B |
| 9 | Biotechnology(Opt.) | 1009 | DSC-1009A | DSC-1009B |
| 10 | Microbiology | 1010 | DSC-1010A | DSC-1010B |
| 11 | English | 1501 | AECC-1501A | AECC-1501B |

Example: Botany Sem I..... DSC-7A and for Sem II..... DSC-7B

The following shall be the courses of the studies under CBCS pattern
B. Sc. – I Biotechnology (Entire) C B C S PATTERN (2018-19)

Semester– I (Duration – 6 Months)

| Sr. No | Course Title | Teaching Scheme | | | | | | Examination scheme | | | | | | | | | | |
|--------------|--------------|-----------------|-------------|-----------|-----------------|-------------|----------|--------------------|------|--------|----------|------|-------|------------|------|---------------------------------|------|--------|
| | | Theory | | | Practical | | | Theory | | | Internal | | | Total | | Practical | | |
| | | No.of lecture | Hours | Credits | No. of Lectures | Hours | Credits | Ma x. | Min. | Hour s | Max. | Min. | Hours | Max . | Min. | Max. | Min. | Hours. |
| 1 | DSC-1331A | 2.5 | 2 | 2 | 4*** | 3.2*** | 2*** | 40 | 14 | 2 | 10 | 04 | 0.5 | 50 | 18 | Practical examination is annual | | |
| 2 | DSC-1332A | 2.5 | 2 | 2 | | | | 40 | 14 | 2 | 10 | 04 | 0.5 | 50 | 18 | | | |
| 3 | DSC-1333A | 2.5 | 2 | 2 | * | * | * 2 | 40 | 14 | 2 | 10 | 04 | 0.5 | 50 | 18 | | | |
| 4 | DSC-1334A | 2.5 | 2 | 2 | 4** | 3.2** | 2** | 40 | 14 | 2 | 10 | 04 | 0.5 | 50 | 18 | | | |
| 5 | DSC-1335A | 2.5 | 2 | 2 | | | | 40 | 14 | 2 | 10 | 04 | 0.5 | 50 | 18 | | | |
| 6 | DSC-1336A | 2.5 | 2 | 2 | 4# | 3.2# | 2# | 40 | 14 | 2 | 10 | 04 | 0.5 | 50 | 18 | | | |
| 7 | DSC-1337A | 2.5 | 2 | 2 | | | | 40 | 14 | 2 | 10 | 04 | 0.5 | 50 | 18 | | | |
| 8 | DSC-1338A | 2.5 | 2 | 2 | - | - | - | 40 | 14 | 2 | 10 | 04 | 0.5 | 50 | 18 | | | |
| 9 | AECC-1339A | 4 | 3.2 | 4 | - | - | - | 40 | 14 | 2 | 10 | 4 | 0.5 | 50 | 18 | | | |
| Total | | 24 | 19.2 | 20 | | 12.8 | 8 | 360 | - | - | - | - | | 450 | - | | | |



Semester-II(duration 6 months)

| Semester-II(duration 6 months) | | | | | | | | | | | | | | | | | | |
|--------------------------------|-------------|---------------|-------|---------|-----------------|----------|---------|--------|------|-------|----------|------|-------|-------|------|---|------|--------|
| | | Theory | | | Practical | | | Theory | | | Internal | | | Total | | Total | | |
| S. No | Course Name | No.of lecture | Hours | Credits | No. of Lectures | Hours | Credits | Max. | Min. | Hours | Max. | Min. | Hours | Max. | Min. | Max. | Min. | Hours. |
| 1 | DSC-1331B | 2.5 | 2 | 2 | 4*** | 3.2*** | 2*** | 40 | 14 | 2 | 10 | 04 | 0.5 | 50 | 18 | Practical structure is separately enclosed. | | |
| 2 | DSC-1332B | 2.5 | 2 | 2 | | | | 40 | 14 | 2 | 10 | 04 | 0.5 | 50 | 18 | | | |
| 3 | DSC-1340B | 2.5 | 2 | 2 | * 4 | * 3.2 | * 2 | 40 | 14 | 2 | 10 | 04 | 0.5 | 50 | 18 | | | |
| 4 | DSC-1345B | 2.5 | 2 | 2 | 4** | 3.2** | 2** | 40 | 14 | 2 | 10 | 04 | 0.5 | 50 | 18 | | | |
| 5 | DSC-1335B | 2.5 | 2 | 2 | | | | 40 | 14 | 2 | 10 | 04 | 0.5 | 50 | 18 | | | |
| 6 | DSC-1336A | 2.5 | 2 | 2 | - | - | - | 40 | 14 | 2 | 10 | 04 | 0.5 | 50 | 18 | | | |
| 7 | DSC-1337B | 2.5 | 2 | 2 | 4# | 3.2# | 2# | 40 | 14 | 2 | 10 | 04 | 0.5 | 50 | 18 | | | |
| 8 | DSC-1338B | 2.5 | 2 | 2 | | | | 40 | 14 | 2 | 10 | 04 | 0.5 | 50 | 18 | | | |
| 9 | AECC-1339B | 4 | 3.2 | 4 | - | - | - | 40 | 14 | 2 | 10 | 4 | 0.5 | 50 | 18 | | | |
| Total | | 24 | 19.2 | 20 | | 12.8 | 8 | 360 | - | - | - | - | - | 450 | | | | |
| Grand Total | | 48 | 38.4 | 40 | | 25.6 | 16 | | | | | | | 900 | | | | |

| Sr. No | Code | Course Name | Practical | | |
|--------|------|---|-----------|------|--------|
| | | | Max. | Min. | Hours. |
| 1 | 1341 | Practical-I ---Techniques in Chemistry and Biochemistry | 50 | 18 | 3.2 |
| 2 | 1342 | Practical-II--- Laboratory Exercise in Microbiology and Instrumentation | 50 | 18 | 3.2 |
| 3 | 1343 | Practical-III --Laboratory Exercise in Plant Science and Animal Science | 50 | 18 | 3.2 |
| 4 | 1344 | Practical-IV --Methods in Mathematics ,Statistics and Computer Application in Biotechnology | 50 | 18 | 3.2 |

* Indicates the practical of Plant Science and Animal Science is combined - Total credit = 2

** Indicates the practical of Mathematics, Statistics and Computer Science is combined – Total credit = 2

*** Indicates the practical of Chemistry, and Biochemistry is combined – Total credit = 2

Indicates the practical of Microbiology and Instrumentation is combined – Total credit = 2

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|---|---|
| • Student contact hours per week : 32 Hours (Min.) | • Total Marks for B.Sc.-I (Including English) : 1100 |
| • Theory and Practical Lectures : 48 Minutes Each | • Total Credits for B.Sc.-I (Semester I & II) : 56 |
| <ul style="list-style-type: none"> • AECC- Ability Enhancement Compulsory Course (A & B) - English • DSC-Discipline Specific Core Course. (for Semester I--A and for semester II--B) • Course list as per enclosed Annexure. <i>Separate passing is mandatory for Theory, Internal and Practical.</i> | |
| • Practical Examination will be conducted annually for 50 Marks per DSC course (subject). | |

Subject code For B.Sc.I (Biotech entire)for Sem I—A and Sem II—B

| Sr. No. | Name of the subject | Subject code | Sem-I DSC-A | Sem-II DSC-B | Sem-III DSC-C | Sem-IV DSC-D | Sem-DSC-E | Sem-IDSC-F |
|---------|--|--------------|-------------|--------------|---------------|--------------|-----------|------------|
| 1 | Chemistry | 1331 | DSC-1331A | DSC-1331B | | | | |
| 2 | BioChemistry | 1332 | DSC-1332A | DSC-1332B | | | | |
| 3 | Plant Science | 1333 | DSC-1333A | | | | | |
| 4 | Mathematics | 1334 | DSC-1334A | | | | | |
| 5 | Computer science | 1335 | DSC-1335A | DSC-1335B | | | | |
| 6 | Biotechnology & Instrumentation | 1336 | DSC-1336A | | | | | |
| 7 | Microbiology | 1337 | DSC-1337A | DSC-1337B | | | | |
| 8 | Physics | 1338 | DSC-1338A | DSC-1338B | | | | |
| 9 | AECC-English | 1339 | DSC-1339A | DSC-1339B | | | | |
| 10 | Animal science | 1340 | | DSC-1333B | | | | |
| 11 | Statistics | 1345 | | DSC-1334B | | | | |
| 12 | Cell Biology | | | DSC-1336B | | | | |
| 12 | Techniques in Chemistry and Biochemistry | 1341 | DSC-1341A | DSC-1341B | | | | |
| 12 | Laboratory Exercise in Microbiology and Instrumentation | 1342 | DSC-1342A | DSC-342B | | | | |
| 13 | Laboratory Exercise in Plant Science and Animal Science | 1343 | DSC-1343A | DSC-1343B | | | | |
| 14 | Methods in Mathematics ,Statistics and Computer Application in Biotechnology | 1344 | DSC-1344A | DSC-1344B | | | | |

The following shall be the courses of the studies under CBCS pattern
B. Sc. (Computer Science Entire) – I C B C S PATTERN (2018-19)

S E M E S T E R – I (Duration – 6 Months)

| Sr. No | Course Title | Teaching Scheme | | | | | | Examination scheme | | | | | | | | | | |
|---------------------------------------|--------------|-----------------|-------|-----------|-----------------|-------|-----------|--------------------|------|-------|----------|------|-------|-------|------|---------------------------------|------|-------|
| | | Theory | | | Practical | | | Theory | | | Internal | | | Total | | Total | | |
| | | No.of lectures | Hours | Credits | No. of Lectures | Hours | Credits | Max. | Min. | Hours | Max. | Min. | Hours | Max. | Min. | Max. | Min. | Hours |
| 1 | GEC -1300 A | 6 | 4.8 | 4 | 4 | 3.2 | 2 | 80 | 32 | 3 | 20 | 8 | 1 | 100 | 40 | Practical examination is annual | | |
| 2 | GEC -1301A | 6 | 4.8 | 4 | 4 | 3.2 | 2 | 80 | 32 | 3 | 20 | 8 | 1 | 100 | 40 | | | |
| 3 | GEC- 1302A | 6 | 4.8 | 4 | 4 | 3.2 | 2 | 80 | 32 | 3 | 20 | 8 | 1 | 100 | 40 | | | |
| 4 | CS-CC-1303A | 6 | 4.8 | 4 | 4 | 3.2 | 2 | 80 | 32 | 3 | 20 | 8 | 1 | 100 | 40 | | | |
| 5 | AECC-ENGA | 4 | 3.2 | 4 | - | - | - | 40 | 16 | 2 | 10 | 4 | 0.5 | 50 | 20 | - | - | - |
| | Total | 28 | 22.4 | 20 | 16 | 12.8 | 8 | 360 | | | 90 | - | | 450 | - | | | |
| Semester-II(duration 6 months) | | | | | | | | | | | | | | | | | | |
| 6 | GECC-1300 B | 6 | 4.8 | 4 | 4 | 3.2 | 2 | 80 | 32 | 3 | 20 | 8 | 1 | 100 | 40 | 100 | 40 | 3.2 |
| 7 | GECC- 1301-B | 6 | 4.8 | 4 | 4 | 3.2 | 2 | 80 | 32 | 3 | 20 | 8 | 1 | 100 | 40 | 100 | 40 | 3.2 |
| 8 | GECC -1302-B | 6 | 4.8 | 4 | 4 | 3.2 | 2 | 80 | 32 | 3 | 20 | 8 | 1 | 100 | 40 | 100 | 40 | 3.2 |
| 9 | CS-CC-1303B | 6 | 4.8 | 4 | 4 | 3.2 | 2 | 80 | 32 | 3 | 20 | 8 | 1 | 100 | 40 | 100 | 40 | 3.2 |
| 10 | AECC-ENGB | 4 | 3.2 | 2 | - | - | - | 40 | 16 | 2 | 10 | 4 | 0.5 | 50 | 20 | - | - | |
| | | 28 | 22.4 | 20 | 16 | 12.8 | 8 | 360 | - | - | 90 | - | - | 450 | | 400 | - | - |
| | Total | 56 | 44.8 | 40 | 32 | 25.6 | 16 | | | | | | | 900 | | | | |

| | |
|--|--|
| <ul style="list-style-type: none"> • Student contact hours per week : 35.2 Hours (Min.) • Theory and Practical Lectures : 48 Minutes Each | <ul style="list-style-type: none"> • Total Marks for B. Sc. (Computer Science Entire) – I(Including English) : 1300 • Total Credits for B. Sc. (Computer Science Entire) Sem-I&II 56 |
| <ul style="list-style-type: none"> • AECC- Ability Enhancement Compulsory Course –English, Practical Examination will be conducted annually for each GEC and CC. • CS-CC- Core Course (Computer Science) GEC-Generic Elective Compulsory Course. • Course list as per enclosed Annexure., <i>Separate passing is mandatory for Theory, Internal and Practical.</i> | |

Subject code for BCS

| Sr. No | Name of the Subject | Subject code | Sem-IA | Sem-IIB | Sem-IIIC | Sem-IVD | Sem-VE | Sem-VIF |
|--------|---------------------|--------------|-----------|-----------|-------------|-------------|-------------|-------------|
| 1 | Mathematics | 1300 | GEC-1300A | GEC-1300A | | | | |
| 2 | Electronics | 1301 | GEC-1301A | GEC-1301A | | | | |
| 3 | Statistics | 1302 | GEC-1302A | GEC-1302A | | | | |
| 4 | CC-CS | 1303 | GEC-1303A | GEC-1303A | | | | |
| 5 | AECC-ENG | BCS-1 | BCS-1A | BCS-1B | | | | |
| 6 | Mathematics | 1300 | | | GEC-1300C | GEC-1300D | | |
| 8 | Electronics | 1301 | | | GEC-1301C | GEC-1301D | | |
| 9 | CC-CS | 1304 | | | CC-CS-1304C | CC-CS-1304D | | |
| 10 | AECC-ENV | - | | | AECC-ENV | AECC-ENV | | |
| 11 | AECC-ENG | BCS-2 | | | | | BCS-2E | BCS-2F |
| 12 | CC-CS | 1305 | | | | | CC-CS-1305E | CC-CS-1304F |
| 13 | CC-CS | 1306 | | | | | CC-CS-1306E | CC-CS-1304F |
| 14 | CC-CS | 1307 | | | | | CC-CS-1307E | CC-CS-1304F |

The following shall be the courses of the studies under CBCS pattern

BBA-I C B C S PATTERN (2018-19)

S E M E S T E R – I (Duration – 6 Months)

| Sr. No | Course Title | Teaching Scheme | | | | | | Examination scheme | | | | | | | | | | | |
|---------------------------------------|--------------|-----------------|-------|-----------|-----------------|-------|------------|--------------------|------|-------|------------|------|-------|------------|------|--------------------------|-------|-------|-----------|
| | | Theory | | | Practical | | | Theory | | | | | | Internal | | | Total | | Practical |
| | | No. of lectures | Hours | Credits | No. of Lectures | Hours | Credits | Max. | Min. | Hours | Max. | Min. | Hours | Max. | Min. | Max. | Min. | Hours | |
| 1 | AECC-1361A | 4 | 4 | 4 | No Practical | | | 40 | 14 | 2 | 10 | 4 | 1 | 50 | 18 | No Practical Examination | | | |
| 2 | CC-1362 A | 4 | 4 | 4 | | | | 40 | 14 | 2 | 10 | 4 | 1 | 50 | 18 | | | | |
| 3 | CC-1363 A | 4 | 4 | 4 | | | | 40 | 14 | 2 | 10 | 4 | 1 | 50 | 18 | | | | |
| 4 | CC-1364 A | 4 | 4 | 4 | | | | 40 | 14 | 2 | 10 | 4 | 1 | 50 | 18 | | | | |
| 5 | CC-1365 A | 4 | 4 | 4 | | | | 40 | 14 | 2 | 10 | 4 | 1 | 50 | 18 | | | | |
| 6 | GEC-1366 A | 4 | 4 | 4 | | | | 40 | 14 | 2 | 10 | 4 | 1 | 50 | 18 | | | | |
| 7 | GEC-1367 A | 4 | 4 | 4 | | | | 40 | 14 | 2 | 10 | 4 | 1 | 50 | 18 | | | | |
| Total | | 28 | 28 | 24 | | | | 280 | | | | 70 | | | 350 | | | | |
| Semester-II(duration 6 months) | | | | | | | | | | | | | | | | | | | |
| 8 | AECC-1361B | 4 | 4 | 4 | No Practical | | | 40 | 14 | 2 | 10 | 4 | 1 | 50 | 18 | No Practical Examination | | | |
| 9 | CC-1362 B | 4 | 4 | 4 | | | | 40 | 14 | 2 | 10 | 4 | 1 | 50 | 18 | | | | |
| 10 | CC-1363 B | 4 | 4 | 4 | | | | 40 | 14 | 2 | 10 | 4 | 1 | 50 | 18 | | | | |
| 11 | CC-1364 B | 4 | 4 | 4 | | | | 40 | 14 | 2 | 10 | 4 | 1 | 50 | 18 | | | | |
| 12 | CC-1365 B | 4 | 4 | 4 | | | | 40 | 14 | 2 | 10 | 4 | 1 | 50 | 18 | | | | |
| 13 | GEC-1366 B | 4 | 4 | 4 | | | | 40 | 14 | 2 | 10 | 4 | 1 | 50 | 18 | | | | |
| 14 | GEC-1367 B | 4 | 4 | 4 | | | | 40 | 14 | 2 | 10 | 4 | 1 | 50 | 18 | | | | |
| Total | | 28 | 28 | 24 | | | | 280 | | | | 70 | | | 350 | | | | |
| Grand Total | | 56 | 56 | 48 | | | 560 | | | | 140 | | | 700 | | | | | |

| | |
|--|---|
| • Student contact hours per week : 28 Hours (Min.) | • Total Marks for BBA.-I : 700 |
| • Theory Lectures : 60 Minutes Each | • Total Credits for BBA-I (Semester I & II) : 48 |
| <ul style="list-style-type: none"> • CC-Core Course ; GEC-Generic Elective Course; AECC- Ability Enhancement Compulsory Course -English • Course list as per enclosed Annexure; <i>Separate passing is mandatory for Theory, Internal.</i> | |

Subject Code

CC-Core course DSE-Discipline Specific Elective Course

GEC-Generic Elective Course

AECC- Ability Enhancement Compulsory Course.

| Sr No | Name of Subject | Sub Code | Sem-I CC-A | Sem-II CC-B | Sem-III CC-C | Sem-IV CC-D | Sem-V CC-E | Sem-VI CC-F |
|-------|--|----------|---------------|----------------|-----------------|----------------|---------------|----------------|
| 1 | Business Communication | 1361 | AECC-1361A | AECC-1361B | AECC-1361C | AECC-1361D | - | - |
| 2 | Principles of Business Management -I | 1362 | CC -1362A | CC -1362B | - | - | - | - |
| 3 | Financial Accounting-I | 1363 | CC -1363A | CC -1363B | - | - | - | - |
| 4 | Business Economics -I | 1364 | CC-1364A | CC-1364B | - | - | - | - |
| 5 | Marketing management –I | 1365 | CC -1365A | CC -1365B | - | - | - | - |
| 6 | Computer application in business-I | 1366 | GEC –1366A | GEC –1366B | - | - | - | - |
| 7 | Human Resource Management-I | 1367 | GEC-1367A | GEC-1367B | - | - | - | - |
| 8 | Management of business Services-I | 1368 | - | - | CC-1368C | CC-1368D | - | - |
| 9 | Cost & Management Accounting-I | 1369 | - | - | CC-1369C | CC-1369D | - | - |
| 10 | Production Management/ Material Management(SemIV) | 1370 | - | - | GEC-1370C | GEC-1370D | - | - |

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|----|---|------|---|---|-----------|-----------|------------|------------|
| | | | | | | | | |
| 11 | Business Economics(Macro-I)- I | 1371 | - | - | CC-1371C | CC-1371D | - | - |
| 12 | Entrepreneurship Development-I | 1372 | - | - | GEC-1372C | GEC-1372D | - | - |
| 13 | Statistical Techniques for Business –I | 1373 | - | - | GEC-1373C | GEC-1373D | - | - |
| 14 | E-Commerce-I | 1374 | - | - | GEC-1374C | GEC-1374D | - | - |
| 15 | Practice in Modern Management –I | 1375 | - | - | - | - | CC3-1375 E | CC3-1375 F |
| 16 | Recent Trends in Marketing-I | 1376 | - | - | - | - | GEC-1376E | GEC-1376F |
| 17 | Financial Management-I | 1377 | - | - | - | - | CC-1377E | CC-1377F |
| 18 | Fundamentals of Business Laws & Tax Laws -I | 1378 | - | - | - | - | GEC378E | GEC1378F |
| 19 | Foundation of Human Skills | 1379 | - | - | - | - | GEC-1379E | GEC-1379F |
| 20 | International Business-I | 1380 | - | - | - | - | GEC-1380E | GEC-1380F |
| 21 | Research Methodology-I | 1381 | - | - | - | - | GEC-1381 | GEC-1381F |

The following shall be the courses of the studies under CBCS pattern

BCA-I CBCS PATTERN (2018-19)

S E M E S T E R – I (Duration – 6 Months)

| Sr. No | Course Title | Teaching Scheme | | | | | | Examination scheme | | | | | | | | | | |
|---------------------------------------|--------------|-----------------|-----------|-----------|-----------------|------------|----------|--------------------|----------|----------|------------|----------|----------|-------------|----------|------------|------|------|
| | | Theory | | | Practical | | | Theory | | | | | | Practical | | | | |
| | | No. of lectures | Hours | Credits | No. of Lectures | Hours | Credits | Max. | Min. | Hours | Max. | Min. | Hours | Max. | Min. | Hours | Max. | Min. |
| 1 | BCA-1391A | 4 | 3.2 | 4 | - | - | - | 80 | 32 | 3 | 20 | 8 | 1 | 100 | 40 | - | - | - |
| 2 | BCA-1392A | 4 | 3.2 | 4 | - | - | - | 80 | 32 | 3 | 20 | 8 | 1 | 100 | 40 | - | - | - |
| 3 | BCA-1393A | 4 | 3.2 | 4 | - | - | - | 80 | 32 | 3 | 20 | 8 | 1 | 100 | 40 | - | - | - |
| 4 | BCA-1394A | 4 | 3.2 | 4 | - | - | - | 80 | 32 | 3 | 20 | 8 | 1 | 100 | 40 | - | - | - |
| 5 | BCA-1395A | 4 | 3.2 | 4 | - | - | - | 80 | 32 | 3 | 20 | 8 | 1 | 100 | 40 | - | - | - |
| 6 | BCA-1396A | - | - | - | 2 | 1.6 | 2 | - | - | - | - | - | - | - | - | 50 | 20 | 3 |
| 7 | BCA-1397A | - | - | - | 2 | 1.6 | 2 | - | - | - | - | - | - | - | - | 50 | 20 | 3 |
| Total | | 20 | 16 | 20 | 4 | 3.2 | 4 | 400 | - | - | 100 | - | - | 500 | - | 100 | | |
| Semester-II(duration 6 months) | | | | | | | | | | | | | | | | | | |
| 8 | BCA-1398B | 4 | 3.2 | 4 | - | - | - | 80 | 32 | 3 | 20 | 8 | 1 | 100 | 40 | - | - | - |
| 9 | BCA-1399B | 4 | 3.2 | 4 | - | - | - | 80 | 32 | 3 | 20 | 8 | 1 | 100 | 40 | - | - | - |
| 10 | BCA-1400B | 4 | 3.2 | 4 | - | - | - | 80 | 32 | 3 | 20 | 8 | 1 | 100 | 40 | - | - | - |
| 11 | BCA-1401B | 4 | 3.2 | 4 | - | - | - | 80 | 32 | 3 | 20 | 8 | 1 | 100 | 40 | - | - | - |
| 12 | BCA-1402B | 4 | 3.2 | 4 | - | - | - | 80 | 32 | 3 | 20 | 8 | 1 | 100 | 40 | - | - | - |
| 13 | BCA-1403B | - | - | - | 2 | 1.6 | 2 | - | - | - | - | - | - | - | - | 50 | 20 | 3 |
| 14 | BCA-1404B | - | - | - | 2 | 1.6 | 2 | - | - | - | - | - | - | - | - | 50 | 20 | 3 |
| Total | | 20 | 16 | 20 | 4 | 3.2 | 4 | 400 | - | - | 100 | - | - | 500 | - | 100 | | |
| Grand Total | | 40 | 32 | 40 | 8 | 6.4 | 8 | 800 | | | 200 | | | 1000 | | 200 | | |

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|--|--|
| • Student contact hours per week : 19.2 Hours (Min.) | • Total Marks for BCA.-I : 1200 |
| • Theory Lectures : 48 Minutes Each | • Total Credits for BCA.-I (Semester I & II) : 48 |
| • Course list as per enclosed Annexure. ;Practical Examination is semester wise. | |
| • <i>Separate passing is mandatory for Theory, Internal, and Practical.</i> | |

BCA

| Sr No | Name of Subject | Sub Code | Sem-I CC-A | Sem-II CC-B | Sem-III CC-C | Sem-IV CC-D | Sem-V CC-E | Sem-VI CC-F |
|-------|---------------------------------------|----------|---------------|----------------|-----------------|----------------|---------------|----------------|
| 1 | Fundamentals of Computers | 1391 | BCA-391A | - | - | - | - | - |
| 2 | Programming in C part-I | 1392 | BCA-392A | - | - | - | - | - |
| 3 | Principle of Management | 1393 | BCA-1393A | - | - | - | - | - |
| 4 | Financial Accounting | 1394 | BCA-1394A | - | - | - | - | - |
| 5 | Office management & Communication | 1395 | BCA-1395A | - | - | - | - | - |
| 6 | Fundamentals of Computers Practical | 1396 | BCA-1396A | - | - | - | - | - |
| 7 | Programming in C part-I Practical | 1397 | BCA-1397A | - | - | - | - | - |
| 8 | Software Packages | 1398 | - | BCA-1398B | - | - | - | - |
| 9 | Programming using C part-II | 1399 | - | BCA-1399B | - | - | - | - |
| 10 | Bank Management | 1400 | - | BCA-1400B | - | - | - | - |
| 11 | Financial Accounting with Tally | 1401 | - | BCA-4101B | - | - | - | - |
| 12 | Principal of Marketing | 1402 | - | BCA-1402B | - | - | - | - |
| 13 | Software Packages Practical | 1403 | - | BCA-1403B | - | - | - | - |
| 14 | Programming using C part-II Practical | 1404 | - | BCA-1404B | - | - | - | - |
| 15 | Cost Accounting | 1405 | - | - | BCA-1405C | - | - | - |
| 16 | Human Resource Management | 1406 | - | - | BCA-1406C | - | - | - |
| 17 | System Analysis & Design | 1407 | - | - | BCA-1407C | - | - | - |
| 18 | Object Oriented Programming with C++ | 1408 | - | - | BCA-1408C | - | - | - |

| | | | | | | | | |
|----|--|------|---|---|-----------|-----------|-----------|-----------|
| 19 | Computer Oriented Statistical Methods | 1409 | - | - | BCA-1409C | - | - | - |
| 20 | Object Oriented Programming with C++ Practical | 1410 | - | - | BCA-1410C | - | - | - |
| 21 | Computer Oriented Statistical Methods Practical | 1411 | - | - | BCA-1411C | - | - | - |
| 22 | Entrepreneurship Development | 1412 | - | - | - | BCA-1412D | - | - |
| 23 | Web Technologies | 1413 | - | - | - | BCA-1413D | | |
| 24 | DBMS using Access | 1414 | - | - | - | BCA-1414D | | |
| 25 | Organizational Behavior | 1415 | - | - | - | BCA-1415D | | |
| 26 | Computer Mathematics | 1416 | - | - | - | BCA-1416D | | |
| 27 | Web Technologies and DBMS using Access Practical | 1417 | - | - | - | BCA-1417D | | |
| 28 | Mini Project | 1418 | - | - | - | BCA-1418D | | |
| 29 | Management Accounting | 1419 | - | - | - | - | BCA-1419E | |
| 30 | E-Commerce | 1420 | - | - | - | - | BCA-420E | |
| 31 | Computer Network | 1421 | - | - | - | - | BCA-1421E | |
| 32 | RDBMS with Oracle | 1422 | - | - | - | - | BCA-422E | |
| 33 | Visual Programming | 1423 | - | - | - | - | BCA-423E | |
| 34 | RDBMS with Oracle and Visual Programming Practical | 1424 | - | - | - | - | BCA-424E | |
| 35 | Mini Project | 1425 | - | - | - | - | BCA-425E | |
| 36 | Strategic Management | 1426 | - | - | - | - | - | BCA-1426F |
| 37 | Data Mining and Data Warehousing | 1472 | - | - | - | - | - | BCA-1427F |
| 38 | Linux Operating System | 1428 | - | - | - | - | - | BCA-1428F |

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|----|----------------------------------|------|---|---|---|---|---|-----------|
| 39 | Java Programming | 1429 | - | - | - | - | - | BCA-1429F |
| 40 | Linux Operating System Practical | 1430 | - | - | - | - | - | BCA-1430F |
| 41 | Java Programming Practical | 1431 | - | - | - | - | - | BCA-1431F |
| 42 | Major Project | 1432 | - | - | - | - | - | BCA-1432F |