ASSESSMENT POLICY

BCA/5 Years Integrated M.C.A. (2nd Semester)

Course: 030010217 / 060060215 – DSE2 Mathematics for Computer Applications (Th)

<table>
<thead>
<tr>
<th>Assessment Code</th>
<th>Assessment Type</th>
<th>Duration of each</th>
<th>Occurrence</th>
<th>Each of marks</th>
<th>Weightage in CIE of &lt;&lt;40 marks&gt;&gt;</th>
<th>Remarks*</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>Quiz</td>
<td>55 mins.</td>
<td>1</td>
<td>20</td>
<td>5 x 1 = 5</td>
<td>Covers units-1</td>
</tr>
<tr>
<td>A2</td>
<td>Unit Test</td>
<td>1.5 hrs.</td>
<td>2</td>
<td>30</td>
<td>6 x 2 = 12</td>
<td>Unit Test-1 covers units- 1, 2, 3.1, 3.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Unit Test-2 covers units- 1, 2, 3, 4, 5</td>
</tr>
<tr>
<td>A3</td>
<td>Internal Examination</td>
<td>3 hrs.</td>
<td>1</td>
<td>30</td>
<td>16 x 1 = 16</td>
<td>Covers all Units</td>
</tr>
<tr>
<td>A4</td>
<td>Assignment</td>
<td>-</td>
<td>1</td>
<td>30</td>
<td>7 x 1 = 7</td>
<td>Covers all Units</td>
</tr>
</tbody>
</table>

*on coverage of units and tentative week

Assessment Type Classification:

<table>
<thead>
<tr>
<th>Assessment Code :</th>
<th>A1</th>
<th>Weightage of Content</th>
<th>Unit</th>
<th>(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>95</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2.1</td>
<td>05</td>
</tr>
</tbody>
</table>

Assessment Type : Quiz

Tentative Date : 24/01/2019

Kind of Question Format:
20 Multiple Choice Questions (MCQ) where each Multiple Choice Questions (MCQ) consists of 1 mark. 10% questions shall be of remembering type in nature whereas 90% shall be of understanding type in nature to test knowledge and analytical skills.

To measure : Knowledge

Course Outcome :

C01: Apply conversion between number systems as well as perform arithmetic operations like addition, subtraction, division and multiplication on binary data.

C02: Apply 2’s complement notation for representing the data and illustrate addition/subtraction of numbers using 2’s complement notation

Programme Outcome :

PO1: Ability to understand the concepts of key areas in computer science.
Assessment Code: A2

Weightage of Content:

<table>
<thead>
<tr>
<th>Unit</th>
<th>(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>25</td>
</tr>
<tr>
<td>2</td>
<td>55</td>
</tr>
<tr>
<td>3.1, 3.2</td>
<td>20</td>
</tr>
</tbody>
</table>

Assessment Type: Unit Test 1

Tentative Date: 21-02-2019

Kind of Question Format:

Q-1 (A) Short answer questions of 1 mark. 60% questions shall be of understanding type nature where as 40% shall be of analysis type to test knowledge and analytical skill with one word or a line of answer.

Q-1 (B) Answer to the questions in brief. Each question consists of 2 marks. Students have to attempt three questions out of four. 70% questions shall be of understanding type nature where as 30% shall be of analysis type to test knowledge and analytical skill with two or five lines of answer.

Q-2 (A) Answer to the questions in detail based on situation given in the questions. Each question consists of 5 marks. Students have to attempt any one question out of two questions. Both the questions shall be of analysis type to test the student’s analytical skill.

(B) Answer to the questions in detail based on situation given in the questions. Each question consists of 5 marks. Students have to attempt any one question out of two questions. Both the questions shall be of analysis type to test the student’s analytical skill.

Q-3 Answer to the questions in detail. Each question consists of 5 marks. Students have to attempt any two questions out of three questions. All the three questions shall be of remembering type in nature to test the student’s conceptual clarity.

Total Mark=Q-1+Q-2+Q-3=10+10+10 = 30 marks

To measure: Knowledge

Course Outcome:

CO1: Apply conversion between number systems as well as perform arithmetic operations like addition, subtraction, division and multiplication on binary data.

CO2: Apply 2’s complement notation for representing the data and illustrate addition/subtraction of numbers using 2’s complement notation

CO3: Recognize mathematical notations and carry out technique of mathematical proof.

CO4: Use concepts of set theory for understanding & fetching data from database using query.

Programme Outcome:

PO1: Proficiency in and ability to identify problems related to computer science as well as design and apply computational knowledge to solve them.
PO2: Ability to design, develop, test and maintain system, component, product or process as per needs and specification.

Assessment Code : A2
Weightage of Content :

<table>
<thead>
<tr>
<th>Unit</th>
<th>(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>15</td>
</tr>
<tr>
<td>2, 3</td>
<td>40</td>
</tr>
<tr>
<td>4, 5</td>
<td>45</td>
</tr>
</tbody>
</table>

Assessment Type : Unit Test 2
Tentative Date : 21-03-2019

Kind of Question Format:

Q-1 (A) Short answer questions of 1 mark. 60% questions shall be of understanding type nature where as 40% shall be of analysis type to test knowledge and analytical skill with one word or a line of answer.

Q-1 (B) Answer to the questions in brief. Each question consists of 2 marks. Students have to attempt three questions out of four. 70% questions shall be of understanding type nature where as 30% shall be of analysis type to test knowledge and analytical skill with two or five lines of answer.

Q-2 (A) Answer to the questions in detail based on situation given in the questions. Each question consists of 5 marks. Students have to attempt any one question out of two questions. Both the questions shall be of analysis type to test the student’s analytical skill.
(B) Answer to the questions in detail based on situation given in the questions. Each question consists of 5 marks. Students have to attempt any one question out of two questions. Both the questions shall be of analysis type to test the student’s analytical skill.

Q-3 Answer to the questions in detail. Each question consists of 5 marks. Students have to attempt any two questions out of three questions. All the three questions shall be of remembering type in nature to test the student’s conceptual clarity.

Total Mark=Q-1+Q-2+Q-3=10+10+10 = 30 marks

To measure : Knowledge

Course Outcome :

C01: Apply conversion between number systems as well as perform arithmetic operations like addition, subtraction, division and multiplication on binary data.

C02: Apply 2’s complement notation for representing the data and illustrate addition/subtraction of numbers using 2’s complement notation

C03: Recognize mathematical notations and carry out technique of mathematical proof.

C04: Use concepts of set theory for understanding & fetching data from database using query.
<table>
<thead>
<tr>
<th>Assessment Code :</th>
<th>A3</th>
<th>Weightage of Content :</th>
<th>All Units cover as per syllabus weightage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessment Type :</td>
<td>Internal</td>
<td>Tentative Date :</td>
<td>18-04-2019</td>
</tr>
</tbody>
</table>

**Kind of Question Format:**

<table>
<thead>
<tr>
<th>Section 1</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Q-1 (A)</strong></td>
<td>Short answer questions of 1 mark. 70% questions shall be of understanding type nature where as 30% shall be of analysis type to test knowledge and analytical skill with one word or a line of answer. 03</td>
</tr>
<tr>
<td><strong>Q-1 (B)</strong></td>
<td>Answer to the questions in brief. Each question consists of 1 mark. Students have to attempt any two questions out of three. 70% questions shall be of understanding type nature where as 30% shall be of analysis type to test knowledge and analytical skill with two or five lines of answer. 02</td>
</tr>
<tr>
<td><strong>Q-2</strong></td>
<td>(A) Answer to the questions in detail based on situation given in the questions. Each question consists of 3 marks. Students have to attempt any one question out of two questions. Both the questions shall be of analysis type to test the student's analytical skill. (B) Answer to the questions in detail based on situation given in the questions. Each question consists of 3 marks. Students have to attempt any one question out of two questions. Both the questions shall be of analysis type to test the student's analytical skill. 06</td>
</tr>
<tr>
<td><strong>Q-3</strong></td>
<td>Answer to the questions in detail. Each question consists of 2 marks. Students have to attempt any two questions out of three questions. All the three questions shall be of remembering type in nature to test the student's conceptual clarity. 04</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Section 2</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Q-4 (A)</strong></td>
<td>Short answer questions of 1 mark. 70% questions shall be of understanding type nature where as 30% shall be of analysis type to test knowledge and analytical skill with one word or a line of answer. 03</td>
</tr>
<tr>
<td><strong>Q-4 (B)</strong></td>
<td>Answer to the questions in brief. Each question consists of 1 mark. Students have to attempt any two questions out of three. 70% questions shall be of understanding type nature where as 30% shall be of analysis type to test knowledge and analytical skill 02</td>
</tr>
</tbody>
</table>
with two or five lines of answer.

Q-5

(A) Answer to the questions in detail based on situation given in the questions. Each question consists of 3 marks. Students have to attempt any one question out of two questions. Both the questions shall be of analysis type to test the student's analytical skill.

(B) Answer to the questions in detail based on situation given in the questions. Each question consists of 3 marks. Students have to attempt any one question out of two questions. Both the questions shall be of analysis type to test the student's analytical skill.

Q-6

Answer to the questions in detail. Each question consists of 2 marks. Students have to attempt any two questions out of three questions. All the three questions shall be of remembering type in nature to test the student's conceptual clarity.

Total Mark=Q-1+Q-2+Q-3+Q-4+Q-5+Q-6=05+06+04+05+06+04 = 30 Marks

To measure : Knowledge

Course Outcome :

CO1: Apply conversion between number systems as well as perform arithmetic operations like addition, subtraction, division and multiplication on binary data.
CO2: Apply 2’s complement notation for representing the data and illustrate addition/subtraction of numbers using 2’s complement notation
CO3: Recognize mathematical notations and carry out technique of mathematical proof.
CO4: Use concepts of set theory for understanding & fetching data from database using query.
CO5: Apply probability techniques on the data belonging to computer science field
CO6: Solve system of linear equation by Cramer’s rule.
CO7: Determine need of matrices in image processing, computer graphics and cryptography

Programme Outcome :

PO1: Proficiency in and ability to identify problems related to computer science as well as design and apply computational knowledge to solve them.
PO2: Ability to design, develop, test and maintain system, component, product or process as per needs and specification.
PO5: Knowledge of programming languages, database systems, operating systems, software engineering, Web & Mobile technology and relevant modern issues.

Assessment Code : A4
Weightage of Content : From all units
Assessment Type : Assignment
Tentative Date : During the semester
Kind of Question Format: Exercise (Examples) related to Mathematics.
To measure : Formative
Course Outcome:

CO1: Apply conversion between number systems as well as perform arithmetic operations like addition, subtraction, division and multiplication on binary data.
CO2: Apply 2’s complement notation for representing the data and illustrate addition/subtraction of numbers using 2’s complement notation.
CO3: Recognize mathematical notations and carry out technique of mathematical proof.
CO4: Use concepts of set theory for understanding & fetching data from database using query.
CO5: Apply probability techniques on the data belonging to computer science field.
CO6: Solve system of linear equation by Cramer’s rule.
CO7: Determine need of matrices in image processing, computer graphics and cryptography.

Rules:

- 5 questions from each unit will be given as assignment.
- Questions will be given on completion of each unit by course teacher.
- One week will be given to students for assignment submission.
- Students have to submit at least 5 assignments.
- Evaluation shall be done based on criteria namely on-time submission, correctness of solution.

Programme Outcome:

PO1: Proficiency in and ability to identify problems related to computer science as well as design and apply computational knowledge to solve them.
PO2: Ability to design, develop, test and maintain system, component, product or process as per needs and specification.
PO3: An ability to communicate effectively with a range of audiences.

UFM policy:
Any ascertained fact of breaking institute policy shall be associated with one or all of the following: (i) zero marks for that CIE parameter occurrence; (ii) Restricted to appear in any further academic assessments of that same course (iii) report to the Programme Co-ordinator; (iii) report to the Director.