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| Faculty of Engineering and Technology | | | |
| Ramaiah University of Applied Sciences | | | |
| Department | Computer Science and Engineering | Programme | B. Tech. |
| Semester/Batch | 6th/2018 | | |
| Course Code | 19CSC312A | Course Title | Artificial Intelligence |
| Course Leader(s) | Dr. Subarna Chatterjee, Gp. Capt. Rath and Santoshi Kumari | | |

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| Assignment-1 | | | | | | | | |
| Register No | | |  | Name of Student | |  | | |
| Question | Marking Scheme | | | | Marks | | | |
| Max Marks | | First Examiner Marks | Moderator |
| 1 |  | | | | | | | |
| 1 | Executive summary | | | **03** | |  |  |
| 2 | Background and Objectives | | | **04** | |  |  |
| 3 | Comparative analysis of state-of-the-art methods | | | **10** | |  |  |
| 4 | Conclusion and Recommendations | | | **03** | |  |  |
| 5 | Presentation | | | **05** | |  |  |
| **Max Marks** | | | | **25** | |  |  |
| **Total Assignment Marks** | | | | | 25 | |  |  |

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| **Course Marks Tabulation** | | | | |
| **Question** | **First Examiner** | **Remarks** | **Moderator** | **Remarks** |
| **1** |  |  |  |  |
| **Marks (Max 25 )** |  |  |  |  |
| **Signature of First Examiner Signature of Moderator** | | | | |

**Please note:**

1. Documental evidence for all the components/parts of the assessment such as the reports, photographs, laboratory exam / tool tests are required to be attached to the assignment report in a proper order.
2. The First Examiner is required to mark the comments in RED ink and the Second Examiner’s comments should be in GREEN ink.
3. The marks for all the questions of the assignment have to be written only in the **Component – CET B: Assignment** table.
4. If the variation between the marks awarded by the first examiner and the second examiner lies within +/- 3 marks, then the marks allotted by the first examiner is considered to be final. If the variation is more than +/- 3 marks then both the examiners should resolve the issue in consultation with the Chairman BoE.

**Assignment-1**

**Instructions to students:**

1. The assignment consists of **1** question.
2. Maximum marks is **25**.
3. The assignment has to be neatly word processed as per the prescribed format.
4. The maximum number of pages should be restricted to **15**.
5. The printed assignment must be submitted to the course leader.
6. **Submission Date: 24 May 2021 (Monday)**
7. **Submission after the due date is not permitted.**
8. **IMPORTANT**: It is essential that all the sources used in preparation of the assignment must be suitably referenced in the text.
9. Marks will be awarded only to the sections and subsections clearly indicated as per the problem statement/exercise/question

**Preamble**

Artificial Intelligence (AI) is one of the leading research fields in the present World of Data Science. Besides all applications, AI has become a part of our personal lives. Recent developments in Deep Learning approaches and advancements in technology have tremendously increased the capabilities of visual recognition systems. As a result, AI has been rapidly adopted by Industry where successful use-cases of AI can be seen across the sectors leading to widening the applications and increased demand for AI tools.

Some of the fields where artificial intelligence has been adopted are as follows:

1. Healthcare
2. Abnormal Event Detection
3. Biometric System
4. Detection of Food Adulteration
5. Military Application
6. Object Detection in Images
7. Agriculture
8. Industry Automation
9. Bioinformatics

**Question-1 (3+4+10+3+5=25 Marks)**

Select any one of the above applications areas of AI as a case study and bring out the following:

1. Executive Summary/Abstract of the Topic emphasizing the application area, challenges and the role of AI to find solutions
2. Background and Objectives
3. Comparative analysis of state of the art methods
   1. Compare the existing state-of-the-art methods and discuss the results.
4. Conclusion and Recommendation
5. Presentation