**DAA Tutorial Planning 2016-2017**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Week No** | **Tutorial No** | **Topics for discussion** | **Team** | **Scheduled week** |
| 1 | 1 | Introduction to Algorithmic thinking |  | 11th Jan-17th jan |
| 2 | 2 | Analysis of non-recursive algorithms |  | 18th jan-24th jan |
| 3 | 3 | Analysis of recursive algorithms |  |  |
| 4 | 4 | Examples on Analysis of algorithms |  |  |
| 5 | 5 | Programming Hackathon on Data structures and Algorithms |  |  |
| 6 | 6 | Analysis of the given problem and find alternate solutions based on given scenario questions / Examples and application discussions |  |  |
| 7 |  | Minor 1 Week |  |  |
| 8 | 7 | Presentation of Applications given on Divide and Conquer Strategy | Team 1, 2 & 3. | 6th march-11th march |
| 9 | 8 | Presentation of applications given on Greedy Technique Strategy | Team 4, 5 & 6. | 13th march-18th march |
| 10 | 9 | Presentation of applications given on Graph Traversals (Shortest Path) Strategy | Team 7, 8 & 9. | 20st march-25th march |
| 11 | 10 | Presentation of applications given on Graph Traversals(Minimum Spanning Tree) Strategy | Team 10, 11 &12. | 3rd april – 8th april |
| 12 |  | Minor 2 Week |  |  |
| 13 | 11 | Hackathon event on Algorithms |  | 10th april-21st april |

**Assessment : 20 marks reduced to 10**

|  |  |  |
| --- | --- | --- |
| **1.** | **Attendance** | **05** |
| **2.** | **Quiz** | **05** |
| **3.** | **Analysis of the given application and Comparison with Brute force solution(Implementation)** | **06** |
| **4.** | **Design Solution for the given technique** | **04** |
|  | **Total** | **20** |

**Approach:**

1. Quiz on the announced topic in the first 30 minutes. Quiz Conduction on 4 techniques for (4\*10=40 marks Reduced to 05 marks). The final marks is the average taken over all the quizzes.
2. Discussion on the announced topics.

Presentation by all the three teams. This discussion will be lead the concerned team of three students.

1. The discussion format is as follows:

Presentation on the topic

Each team will get 20 minutes time.

Last 30 minutes Discussion on Comparison of all three solutions presented by team.

Based on that discussion, students have to rate themselves as well as there peers (By self and peer rating)

Expectations from the students

1. Understanding the given problem in detail.(2mins)
2. Solution to the problem using the given technique.(10 mins)
3. Analysis of time Complexity.(3 mins)
4. Comparison of your solution with Brute force solution.(5mins)

Rubrics

|  |  |  |  |
| --- | --- | --- | --- |
| Parameter | [8-10] | [4-7] | [1-3] |
| Understanding  the problem | Students uses the  ideas, concepts or  Processes correctly to construct explanations.  Students applies  understanding to solve complex problems including those in unfamiliar situations | Students describes  the ideas, concepts or processes .  Students applies  understanding to  solve complex  problems in  familiar situations | Students recalls  some ideas,  concepts or  Processes.  Students applies  understanding to solve simple  problems |
| Analyzing the  problem | Students explains the problems discussing its  Relevance. Students  critically investigates  the problem and selects  appropriate information  from some sources | Student describes  the problem and  mention its  relevance. The  Student analyzes  and selects  appropriate  information from  some sources | Student states the problem. Student  investigates the  problem collecting  information from  Sources. |
| Comparison  with its brute  force solution | Students should have clarity of brute force  solution and their  solution to compare | Students have  clarity of brute  force solution but  not with their  solution | Partial  understanding in both  approaches |
| Justifying their  solution is the  best one with  respect to its  complexities | Identifying best solution  with quantifiable  measures | Identifying best  solution but with  partial justification | Not able to justify |

Announcement of the activity, allotment of problems to teams, rubrics discussion for all divisions will be done during the week 15th feb to 21st feb 2017.

Date which have been highlighted are the schedules of presentation

Weekly Schedule of A and B Division

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **#Week** | **A Divn (A1 Batch) Lab 2** | **A Divn (A2 Batch) Lab 2** | **BDivn (B1 Batch) Lab 2** | **BDivn (B2 Batch) Lab 2** |
|  | **WEDNESDAY** | **MONDAY** | **THURSDAY** | **TUESDAY** |
|  | 11/01/2017 | 16/01/2017 | 12/01/2017 | 17/01/2017 |
|  | 18/01/2017 | 23/01/2017 | 19/01/2017 | 24/01/2017 |
|  | 25/01/2017 | 30/01/2017 | 26/01/2017 | 31/01/2017 |
|  | 01/02/2017 | 06/02/2017 | 02/02/2017 | 07/02/2017 |
|  | 08/02/2017 | 13/02/2017 | 09/02/2017 | 14/02/2017 |
|  | 15/02/2017 | 27/02/2017 | 16/02/2017 | 28/02/2017 |
|  | 01/03/2017 | 06/03/2017 | 02/03/2017 | 07/03/2017 |
|  | 08/03/2017 | 13/03/2017 | 09/03/2017 | 14/03/2017 |
|  | 15/03/2017 | 20/03/2017 | 16/03/2017 | 21/03/2017 |
|  | 10/04/2017 | 03/04/2017 | 30/03/2017 | 04/04/2017 |
|  | 19/04/2017 | 24/04/2017 | 20/04/2017 | 18/04/2017 |

Weekly Schedule of C and D Division

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| --- | --- | --- | --- | --- |
| **#Week** | **A Divn (C1 Batch) Lab 2** | **A Divn (C2 Batch) Lab 2** | **BDivn (D1 Batch) Lab 2** | **BDivn (D2 Batch) Lab 2** |
|  | **THURSDAY** | **TUESDAY** | **FRIDAY** | **MONDAY** |
|  | 12/01/2017 | 17/01/2017 | 13/01/2017 | 16/01/2017 |
|  | 19/01/2017 | 24/01/2017 | 20/01/2017 | 23/01/2017 |
|  | 26/01/2017 | 31/01/2017 | 27/01/2017 | 30/01/2017 |
|  | 02/02/2017 | 07/02/2017 | 03/02/2017 | 06/02/2017 |
|  | 09/02/2017 | 14/02/2017 | 10/02/2017 | 13/02/2017 |
|  | 16/02/2017 | 28/02/2017 | 17/02/2017 | 27/02/2017 |
|  | 02/03/2017 | 07/03/2017 | 03/03/2017 | 06/03/2017 |
|  | 09/03/2017 | 14/03/2017 | 10/03/2017 | 13/03/2017 |
|  | 16/03/2017 | 21/03/2017 | 17/03/2017 | 20/03/2017 |
|  | 30/03/2017 | 04/04/2017 | 31/03/2017 | 03/04/2017 |
|  | 20/04/2017 | 18/04/2017 | 21/04/2017 | 24/04/2017 |