Faculty of Engineering & Technology			
Ramaiah University of Applied Sciences			
Department	Computer Science and Engineering	**Programme**	B. Tech.
Semester	5th		
Course Code	CSC303A	**Course Title**	Computer Networks
Course Leader	Dr Rinki Sharma, Mr Nithin Rao R, Gp Capt N Rath VSM		

Assignment						
Register No.			Name of Student			
Sections		Marking Scheme		Max Marks	First Examiner Marks	Second Examiner Marks
Question-1	1.1	Introduction		01		
	1.2	Effect of channel noise on DLL sliding window protocols		03		
	1.3	Stance taken and Justification		01		
		Question 1 Max Marks		**05**		
Question-2	3.1	Introduction		01		
	3.2	Comparison of ALOHA and CSMA		03		
	3.3	Conclusion		01		
		Question 2 Max Marks		**05**		
		Total Assignment Marks		**10**		

Course Marks Tabulation				
Component- 1(B) Assignment	First Examiner	Remarks	Second Examiner	Remarks
1				
2				
Marks (Max 10)				
Signature of First Examiner				Signature of Second Examiner

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

Instructions to students:

1. The assignment consists of **2** questions

2. Maximum marks is **10.**

3. The assignment has to be neatly word processed as per the prescribed format.

4. The maximum number of pages should be restricted to **6**.

5. The printed assignment must be submitted to the course leader.

6. **Submission Date:** 04/11/2019

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

Question 1   **05 Marks**

One of the important functionalities of the DLL (Data Link Layer) in a computer is to form frames and pass the individual frames to the Physical Layer. The frames are transmitted using sliding window protocols such as stop and wait, Go Back N or Selective Repeat. The amount of noise in the channel plays a significant part in choosing the sliding window protocol that should be used at the DLL.

Develop a debate on **"Go-Back-N protocol is a better choice compared to Selective Repeat for a noisy channel".**

The report should be structured along the following lines.

1.1   Introduction to debate topic.

1.2   Effect of channel noise on DLL sliding window protocols

1.3   Stance taken and Justification.

Question 2   **05 Marks**

ALOHA is a seminal random-access protocol in which the nodes transmit packets as soon as these are available, without sensing the wireless carrier. Carrier Sense Multiple Access with Collision Avoidance is an improved random-access scheme, according to which wireless nodes first sense the wireless medium before transmitting their data packets.

To analyse ALOHA, only time is used as a parameter, whereas in CSMA, both time and space are used. Discuss the possible reasons for this distinction.