Q. Code: 889206

Reg. No. | | | | | | | | | |

M.E. / M.TECH. DEGREE EXAMINATIONS, MAY 2019

Second Semester

CU18201 – ADVANCED COMMUNICATION NETWORKS

(*Communication Systems*)

(Regulation 2018)

Time: Three Hours **Maximum : 100 Marks**

Answer **ALL** questions

PART A - (10 X 2 = 20 Marks)

1. How resources are defined in Wild –Card filter style?
2. Use the following values to determine Bandwidth delay product (BDP).
   L=12,000 bits and 2 ∂=10ms and C=100 Mbps.
3. What is meant by Max – Min Fair sharing?
4. List out the basic requirements of packet scheduling.
5. What is meant by locality in a cache look up?
6. Define a stride and Fixed stride in multi-bit tries.
7. Draw the structure of Differentiated Service (DS) field.
8. What is forwarding equivalence classes in Differentiated Service (DS)?
9. Why Label merging is performed in MPLS?
10. List out the traffic engineering metrics.

PART B - (5 X16 = 80 Marks)

11. (a) Illustrate and draw Integrated services reference model and write a brief note on Reservation Styles in RSVP. **(16)**

(OR)

(b) (i) Describe the Slow –Start evolution and Congestion Avoidance after buffer overflow in detail. **(8)**

(ii) Discuss the short transfer throughput and buffer overflow for Slow –Start. **(8)**

12. (a) Illustrate the scheduling and average service rate for Weighted Fair Queue and write a short note on the Active Queue Management. **(16)**

(OR)

(b) (i) Illustrate the role of Virtual Time in scheduling. **(8)**

(ii) Illustrate the Weighted RED algorithm. **(8)**

13. (a) (i) How range look-ups are defined for a dimension of width 'W Bits? **(8)**

(ii) Write a brief note on Flow identification and Hashing based flow identification technique. **(8)**

(OR)

(b) (i) Describe the binary Tries and path compression binary Tries. Demonstrate searching of an address beginning with 1100000 in a path compressed tries. **(8)**

(ii) Write short notes on Packet Classification geometric algorithms. **(8)**

14. (a) Describe the frame work for the Differentiated Services (DS). **(16)**

(OR)

(b) (i) Write a short note on traffic conditioning and classification in DS. **(8)**

(ii) Discuss expedited forwarding. **(8)**

15. (a) Discuss briefly about Label Distribution protocol (LDP) and describe Label stacking & Label Stack encoding in MPLS. **(16)**

(OR)

(b) (i) Discuss the constraint based routing and derive a mathematical formulation for route optimization. **(8)**

(ii) Write brief note on Overlay model in Traffic engineering. **(8)**