

**M.C.A. SEM - III (CHOICE BASED CREDIT SYSTEM 2011 &
2012 COURSE) : SUMMER - 2018
SUBJECT: COMPUTER NETWORKS**

Day : **Monday**
Date : **30/04/2018**

S-2018-1793

Time : **02.00 PM TO 05.00 PM**
Max. Marks: 100

N. B.

- 1) Attempt any **FOUR** questions from Section – I and any **TWO** questions from Section – II.
 - 2) Figures to the right indicate **FULL** marks.
 - 3) Answers to both the sections should be written in **SAME** answer book.
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SECTION – I

- Q.1** Explain OSI reference model with functioning of each layer. (15)
- Q.2** Compare and contrast between connection oriented and connectionless services. (15)
- Q.3** What is wireless sensor network? Also discuss its design issues. (15)
- Q.4** What is congestion? State principles of congestion control. Also state congestion prevention policy. (15)
- Q.5** Write short notes on any **THREE**: (15)
- a) Mobile Ad-hoc Networks
 - b) ISDN
 - c) Sub-netting
 - d) MANET

SECTION – II

- Q.6** a) What is the purpose of multiplexing? Compare the strength and weakness of FDM and TDM. (10)
- b) Describe how a 100 MHz line with a data rate of 200 mbps can be divided into 20 channels using FDM and TDM. (10)
- Q.7** a) Define IP-Addressing. What are the different classes of IP-V₄? Explain. (10)
- b) Find the classes of each address: (10)
- i) 00000001 00001011 00001011 11101111
 - ii) 11000001 10000011 00011011 11111111
 - iii) 14.23.120.8
 - iv) 252.5.15.111
 - v) 221.34.7.82
- Q.8** A computer application department is planning to switch from wired LAN to wireless LAN. Suggest the necessary specifications and equipments required for this arrangement. (20)

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