

P1222

[3664]-356

B.E. (IT)

SYSTEM OPERATIONS AND MAINTENANCE

(2003 Course) (414448) Sem - 2

Time : 3 Hours]

[Max. Marks : 100

Instructions to the candidates:

- 1) Answer three questions from section-I and three questions from section-II.
- 2) Answers to the two sections should be written in separate books.
- 3) Neat diagrams must be drawn wherever necessary.
- 4) Figures to the right indicate full marks.
- 5) Use of logarithmic table, slide rule, Mollier charts, electronic pocket calculator and steam table is allowed.
- 6) Assume suitable data if necessary.

**SECTION - I**

- Q1) a) Classify telecom service providers. [5]  
b) With a neat diagram explain the organizational structure of an average telecom service provider. [5]  
c) Explain service delivery cycle with a neat diagram. [8]

OR

- Q2) a) What is Telecommunicating Management Network? Explain with neat diagram the architecture of TMN. [9]  
b) List the key function of following support process [9]  
i) Customer care and billing process.  
ii) Order processing and provisioning process.

- Q3) a) What is LDAP? Explain the features and limitation of the same. [8]  
b) Discuss differentiation of market segments. [8]

OR

- Q4) a) With the neat diagram explain directory enabled networking. [8]  
b) With respect to SNMP protocol explain [8]  
i) Traditional SNMP manage.  
ii) RMON.

- Q5)** a) Compare and contrast CMIP and SNMP. [8]  
b) What is proactive management in problem handling process? [8]

OR

- Q6)** a) What are sources of information of IP billing? List the challenges and solutions in IP billing. [8]  
b) Explain (any 8) [8]  
i) TINA.  
ii) WAP.  
iii) CRM.  
iv) EDGE.  
v) CMIP.  
vi) B2C.  
vii) CDR.  
viii) GPS.  
ix) Non Source Routing.  
x) PVC.  
xi) Call Rating.  
xii) Resource Reservation Protocol.

### **SECTION - II**

- Q7)** a) Discuss the site design considerations for a service providers vibrant website. [9]  
b) Customer care is a typical front office function - Explain. [9]

OR

- Q8)** a) What SLA list some service dependent and service independent metrics? [9]  
b) Explain Mediation and Mediation System. [9]  
**Q9)** a) Draw a neat diagram for a generic architecture for micro payments. [8]  
b) With a flowchart explain a typical service level management process. [8]

OR

- Q10)** a) Explain the significance of periodic security audit for a telecommunication service provider. [8]  
b) With a neat diagram give the overview of management operations support services. [8]

- Q11)* a) Write a job profile of typical network operations manages. [8]  
b) Compare and contrast building teams and keeping teams. [8]

OR

- Q12)* a) Draw a neat diagram of business data collection, processing distribution architecture. [8]  
b) List the importance of documentation and management tools in customer care and billing process. [8]  
Comment on the same using B2B or B2C application.

