

ME (CAMPN) ^{at} INPN

10/12/2019

QP Code : 17028

(3 Hours)

Total Marks: 100

N.B. (1) Question NO.1 is compulsory.

(2) Answer any four out of remaining six questions.

- Q.1 [a] IP is connection-less protocol, why? How padding is used in IP datagram? [10]
[b] Explain TCP state transition diagram. [10]
- Q.2 [a] Compare the following - [10]
(i) ARP and RARP
(ii) IPv4 and IPv6.
[b] Explain in detail Path Vector Routing [10]
- Q. 3 [a] What is silly window syndrome? What is Clark's solution? [10]
[b] Discuss DNS and message format. [10]
- Q. 4 [a] What are the areas of Network management? Explain briefly. [10]
[b] What are the types of message defined by SNMP V2 and the format of PDU types? Explain. [10]
- Q. 5 [a] Explain error reporting messages in ICMP. [10]
[b] Explain RMON goals and RMON MIS. [10]
- Q. 6 [a] Compare POP3 with IMAP. [10]
[b] Explain subnet mask and supernet with example [10]
- Q. 7 Write short note on any four [20]
a) Layer 3 switching
b) MIME
c) Telnet
d) OSPF
e) MPLS.

Q.P. Code : 17026

(3 Hours)

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- N.B. : (1) Question No.1 is **compulsory**.
(2) Attempt any **four** questions from the **remaining**.

1. (a) What are the benefits and risks of object oriented development? 10
(b) Distinguish between object and class. 5
(c) What are the five attributes of a complex system? 5

2. A system called as ONLINE TESTING SYSTEM is to be developed for facilitating placement in an engineering college. It is an intranet based system that can be accessed through the organization or a specific department. It comprises of features such as:
 - User registration
 - User authentication
 - Managing users information
 - Managing question database
 - Conducting online tests
 - Viewing online results

(a) Develop a use case diagram for this system. 10
(b) Draw a class diagram and object diagram for the above system. 10

3. (a) Define abstraction. Explain different types of abstraction. 10
(b) What do you understand by state, behavior and identity of an object? 10

4. (a) Explain the different steps that are performed in constructing a functional model. 10
(b) We wish to develop a MEDICAL CLINIC SYSTEM. It has the following facilities: 10
 - Doctors can view the patient's test reports and provide medication.
 - Managing patient's and doctors information.
 - Giving/Cancelling appointments to patient for OPD, operation etc.
 - Carrying medical tests.
 - Receiving payment
 - Report generation of various tests.

Develop a functional model for this system.

TURN OVER

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- 5 (a) What is dynamic modeling? Explain the different steps that are performed in constructing a dynamic model. 10
- (b) Construct a state transition diagram and interaction diagram for the computerization of a library. 10
6. (a) Define abstraction. Explain different types of abstraction. 10
- (b) What do you understand by state, behavior and identity of an object? 10
7. (a) What do you understand by analysis using CRC cards. 10
- (b) Conduct CRC Analysis for ticket reservation system. 10
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