

Roll No. 238/CO/12

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Date: 29<sup>th</sup> Feb, 2016

VIII Semester

B.E. (COE)

## MID SEMESTER EXAMINATION MARCH- 2016

### COE-411: COMPUTER COMMUNICATION & ELECTRONIC SWITCHING

Time: 1.30 Hrs.

Max. Marks: 20

**NOTE: Attempt all questions. All question carry equal marks. Assume suitable missing data, if any.**

- Q1. [a] Explain the seven layer architecture of OSI-ISO reference model in detail.  
[b] Compare ISO-OSI reference model with TCP/IP.
- Q2. [a] Compare Guided Media with Unguided Media with example.  
[b] Explain the characteristics of optical fiber media. What are the advantages of optical fiber cable over coaxial cable?
- Q3. [a] Compare Go-Back-N ARQ protocol, Selective repeat and Stop & Wait ARQ protocol.  
[b] What is Cyclic Redundancy Check (CRC)? Given the Dataword 1010011010 and the divisor 10111. Show the generation of Codeword at the sender side and check whether this Codeword is accepted at receiver side or not.
- Q4. [a] Compare Pure ALOHA with Slotted ALOHA  
[b] Compare CSMA/CD with CSMA/CA.
- Q5. Write short notes on any **Two**  
[a] TDMA, FDMA and CDMA  
[b] Network Topologies  
[c] Switching Methods

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**B.Tech- IV Year (Computer Engineering) (8<sup>th</sup> Semester)**  
**Mid Semester Examination March-2016**  
**COE -412 Software Engineering**

*Time - 1 ½ hours*

*Max. marks - 20*

**Note : Attempt All questions.**

- ✓ Q1. What are the different Stages of Software Development Lifecycle ? Explain Briefly. (2)
- ✓ Q2. What are the different views of modeling. Explain the method used to model the functional view of the problem domain. (4)
- ✓ Q3. Define Requirement. Explain in detail different types of requirements. Give suitable example of each type of the requirement. (5)
- ✓ Q4. Explain in detail Spiral Model. Which process model you will use to automate a chain of colleges. Justify your answer. (3)
- ✓ Q5. It is proposed to automate the working of an hotel. A hotel has certain number of rooms which have different rates depending upon the category. The category can be single, double, AC, Non Ac, Suite. Visitor can reserve rooms in advance or on the spot depending upon the availability. In case the visitor reserves the room in advance he is supposed to deposit the full room rent in advance. In case of cancelation of reservation depending upon the hotel policy the amount is refunded to the customer. The receptionist enters data pertaining to visitors such as their arrival time, advance paid, approximate duration of stay and the type of room required. Depending upon this data and the availability the computer allots the room number and a unique token number to the visitor. The hotel also provides several services like catering, laundry to the visitors. The room service manager enters the details of services taken by the visitors, date and time and the token number as and when the visitor avails the services. When a visitor prepares to checkout, the software generates the complete bill for the visitor and also prints the balance amount payable by him. During checkout the visitor is also asked to fill a feedback form. Visitor can also opt to register himself for frequent guests program. Frequent guests are issued an identity number which entitles them to get special discounts on their bills. The hotel from time to time comes up with promotional schemes consisting of weekend packages and informs the frequent guests.

For the requirements given above draw the static view using the model discussed in the class. (4)

- ✓ Q6. Write a note on data dictionary. (2)

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**MID SEMESTER EXAMINATION, MARCH-2016**  
VIII Sem. BE (COE)  
COE-413: Expert System

Time: 1:30 Hrs.

Max. Marks: 20

*Note: Attempt all Questions. Questions carry equal marks.*

- ✓ Q1. What is an Expert System? What are the general features of an expert system?
- ✓ Q2. What is the difference between human expertise and artificial expertise?
- ✓ Q3. What is the difference between algorithmic and heuristic methods?
- ✓ Q4. Write short note:

- ✓ i. Production Rules  
✓ ii. Inference

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