- Sem - II - [CBGS] - INFT - Advanced Software Architecture

QP Code : **30397**

(3 Hours) [Total Marks :80

N.B. : (1) Question no. **1** is **compulsory.**
(2) Attempt any **three** questions from the remaining.
(3) Assume suitable data, if required.

1. (a) Define broker architectural pattern. Explain with a diagram objects involved in a broker system 10
(b) Define Architectural Model, View and Viewpoint 6
(c) What is dynamic and scenario based analysis 4

2. (a) Explain Network architecture (Cloud) 10
(b) How architectural style differs from architectural pattern. Explain with an example? 10

3. (a) Explain architecture with respect to Wireless Network 10
(b) Explain designing of non-functional properties? 10

4. (a) Define architectural patterns, reference models and reference architectures and bring out the relationship between them? 6
(b) What are various process recommendations as used by an architect while developing s/w architecture. 4
(c) What steps involved in implementing the microkernal system 10

5. (a) Briefly explain the benefits of master slave design pattern 6
(b) Explain with neat diagram the evolutionary delivery life cycle model. 6
(c) Explain different variations of procedure call and linkage connectors. 8

6. (a) Explain different variation of procedure call and linkage conectors. 8
(b) What is the difference between internal and external consistency? Explain name inconsistency. 10
(c) Explain Domain and style specific ADLS? 10

E- Sem- II - (CBSGS) - INFT - Next Generation Network

QP Code : 30421

80 marks **3 hrs.**

NB :

1. **Question 1 is compulsory**
2. **Attempt any 3 questions out of the remaining questions.**
3. **Assume suitable data whenever required**

Q1.

a) List and briefly explain various services of NGN **(5)**
b) Compare various IEEE 802.11x standards. (a, b and g) **(5)**
c) Explain the architecture of Wireless Mesh Network **(5)**
d) Explain Transmission hierarchy of media. **(5)**

Q2.

a) Explain what is Evolution Data Optimized (EVDO) and Ultra Mobile Broadband (UMB). Explain its uses **(10)**
b) Explain the function of Resource and Admission Control function. How does RACF interfaces with NACF **(10)**

Q3.

a) Draw and give details how an IMS session is established **(10)**
b) Explain OSS transition strategies and justify the importance of standards **(10)**

Q4.

a) Justify the need of MANET protocols. Explain the advantages and disadvantages of proactive protocols over reactive protocols. **(10)**
b) Explain Zachman framework and its mapping with e-TOM. Explain with the help of an example. **(10)**

Q5.

a) Compare Bluetooth and Zigbee technologies. What are the components & applications of Zigbee, explain in detail. **(10)**
b) Explain LTE in detail, how it is effective in reducing power and space requirements. **(10)**

Q6. Explain any 2 **(20)**

a) Compare MIP6 and IP6
b) PSTN/ ISDN Emulation Component
c) Management Function (FCAPS)
