

## ADV. SOFTWARE ARCH.

QP Code : 63040

(3 Hours)

[ Total Marks : 80

NB.: 1) Question 1 is compulsory.

2) Attempt any three from remaining Questions.

3) Assume suitable data wherever necessary.

4) Figure indicates marks.

- 1 (a) Define and explain architectural trade off model in detail with neat diagram 10  
(b) Which architecture style is available for use of list and discuss them in detail. 10
- 2 Design architecture using suitable style for the control of BEST BUS transport system. Consider all the constraints such start of BUS from starting point till BUS stopping at some destination point. 20
- 3 (a) Explain in detail what do you understand by software architecture business cycle? 10  
(b) Explain service oriented architecture and web services. 10
- 4 (a) Define intelligent software agent. Explain the functions performed by intelligent software agent. List out the different types of software agents and explain them with suitable examples. 10  
(b) Design issues for NFPs:- Complexity, Heterogeneity 10
- 5 (a) Explain how coding related decision, such as choosing a user interface tool may affect the architecture. 10  
(b) Explain traditional language influenced architectural style using Lunar Lander 10
- 6 (a) What is MVC explain the same with neat diagram and suitable example. 10  
(b) Explain network architecture (Cloud) 10

(3 Hours)

(Marks 80).

**Note :** (1) Solve any four from Six questions.  
(2) Draw suitable diagrams if required.

1. (a) Explain how virtualization, abstraction, standardization and Automation aids in cloud computing. 10  
(b) Explain the storage virtualization and network virtualization. 10
2. (a) Explain why integration is required as one of the cloud services. 10  
(b) Explain window Azure developer Portal. 10
3. (a) Explain the Cloud service model 10  
(b) Explain VM ware, QEMU and Virtual box 10
4. (a) Explain Para Virtualization, Hypervisor and virtual machine manager. 10  
(b) How Azure Queries are created and processed. 10
5. (a) Explain the use of Eucalyptus in cloud computing. 10  
(b) Explain various steps in cloud Migration. 10
6. (a) How ASP.NET is adapted for authentication with window Azure web roles. 10  
(b) Explain vertical and horizontal scaling. 10

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# INFT / Sem-II (CBSGS) / Next Generation Network / Nov-16.

Q.P. Code: 681400

( 3 Hours)

[ Total Marks : 80

- NB. : (1) Question 1 is compulsory.  
(2) Attempt any 3 out of the rest.  
(3) All question carry equal marks.

7. Write (Any Four) 20
- (a) Explain transmission hierarchy of media
  - (b) What benefits does NGN offers to service providers?
  - (c) Explain the advantages of using virtualization.
  - (d) Explain the difference between proactive, reactive and hybrid MANET Protocols.
  - (e) What are the features of HSPA and Enhanced HSPA.
2. (a) Compare: 1. ITU vs TISPAN 10  
2. e-TOM vs ITIL
- (b) Explain extended Wi-Fi. Explain Wi-Max architecture and protocol 10
3. (a) Explain Long Term Evolution (LTE) with respect to OFDM and Give details of how it reduces latency. 10
- (b) Explain Zachman framework and how it maps to e-TOM framework. Give example of e-TOM using operation layer for after sales service for any product. 10
4. (a) Explain logical architecture of wireless sensor networks, what is the difference between this architecture and the physical architecture 10
- (b) Explain IMS architecture detailing the role of various Call State Control Functions (CSCF). 10
5. (a) Explain FCAPS management functions. 10
- (b) Justify the need of Mobile IP and what are the added features in MIPv6 over MIPv4 10
6. (a) Detail the services and the user profiles offered by Bluetooth and Bring out the difference in their usage. 10
- (b) Draw the functional architecture of ITU-T NGN and detail the functions of Transport stratum. 10
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