# VALLIAMMAI ENGINEERING COLLEGE

# DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

# **QUESTION BANK**

# **M.E III SEM CSE**

# **CP7028-ENTERPRISE APPLICATION INTEGRATION**

# **Unit-I - INTRODUCTION**

# 2-marks

- 1. What is EAI?
- 2. Need for EAI?
- 3. How is EAI different?
- 4. List out advantages of EAI?
- 5. List out disadvantages of EAI?
- 6. What are the enterprise need EAI?
- 7. What is the types of integration based on architecture ?
- 8. Define EAI process?
- 9. Define legacy system?
- 10. What are the technologies used to build EAI?
- 11. What are characteristic of legacy system?
- 12. Requirement of EAI?
- 13. Challenges of EAI?
- 14. Types of data integration approaches?
- 15. What is middleware?
- 16. What are the different forms of middleware?
- 17. Define enterprise service bus?
- 18. What are requirement of SOA?
- 19. What is ETL?
- 20. Need for messaging?

# 16-marks

- 1. Draw the architecture of EAI and explain in detail with suitable example?
- 2. Explain in detail about four common types of integration?
- 3. Explain in detail steps to be followed in EAI?
- 4. Explain in detail about challenges of EAI?
- 5. Explain in detail about patterns of EAI?
- 6. Define legacy system, explain the integration with legacy system?
- 7. Explain in detail about requirement of middleware?
- 8. Explain in detail SOA with neat diagram?
- 9. Write a shorts on 1) Difference between shared and distributed data? 2) direct data integration?
- 10. Explain the various integration approaches and implementation of EAI?

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#### **Unit –II-INTEGRATION PATTERNS**

#### 2-marks

- 1. Draw the pattern diagram for integration style?
- 2. What is scatter-gather?
- 3. Need for enterprise integration?
- 4. What is correlation?
- 5. List out the challenges of enterprise integration pattern?
- 6. What is point -to- point channel?
- 7. What are the four main approaches of integration pattern?
- 8. List out any five types of integration styles?
- 9. Define broker?
- 10. Advantages of message bus?
- 11. List out any two challenges in performance?
- 12. List out any two challenges in security?
- 13. List out any two challenges in reliability?
- 14. What is an architecture that enables separate applications to work together, but in a decoupled fashion such that applications can be easily added or removed without affecting the others?
- 15. How can the sender broadcast an event to all interested receivers?
- 16. What are the types for implementing integration pattern?
- 17. Comparisons between notification and application.
- 18. Draw the pattern for Publish/Subscribe using the Pull Model?
- 19. What is mean by messaging gateway?
- 20. What are the patterns available for message transformation?

#### 16-marks

- 1. Explain various patterns of integration ?
- 2. Explain the architecture for application integration?
- 3. Explain the working of born trading system?
- 4. Explain point-to- point integration architecture?
- 5. Explain in detail about challenges in performance?
- 6. Explain in detail about challenges in security?
- 7. Explain in detail about challenges in reliability?

8. Explain in detail about architecture that enables separate applications to work together, but in a decoupled fashion such that applications can be easily added or removed without affecting the others?

9. How can you decouple the destination of a message from the sender and maintain central control over the flow of messages?

10. Explain detail about Publish/Subscribe with suitable Example?

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# **Unit-III- SERVICE ORIENTED INTEGRATION (SOI)**

# <u>2 marks.</u>

- 1. What is Service oriented integration?
- 2. What is Business Process Integration (BPI)?
- 3. Define Integration Barriers?
- 4. Define composite application?
- 5. What is web service and give examples?
- 6. List out some web service protocols?
- 7. Define orchestration?
- 8. Difference between service choreography and orchestration?
- 9. Define business process modeling?
- 10. What is the purpose of business process modeling?
- 11. What are the types of business processes?
- 12. Define BPMN?
- 13. What is business process execution?
- 14. What is BPEL?
- 15. List out BPEL design goals?
- 16. Define middleware infrastructure with example?
- 17. What is business process reengineering with diagram?
- 18. Define business process management?
- 19. Difference between BPMN and BPEL?
- 20. Define scope of BPEL?

# <u> 16 marks</u>

- 1. Explain in detail about business process integration with suitable example?
- 2. Explain in detail about composite application?
- 3 .Write short notes:
  - a) Web services
  - b) Service choreography and orchestration.
- 4. Explain in detail about business process model and its notation?
- 5. Explain about business process execution and list out its languages?
- 6. Explain in detail about BPMN with suitable example?
- 7. Define BPEL, explain in detail?
- 8. Explain in detail about business process management?
- 9. Define middleware infrastructure, explain in detail?
- 10. Explain luxury travel service Provider Company with suitable example?

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### **UNIT -IV - MESSAGING BASED INTEGRATION**

#### 2 marks

- 1. Define Message Based Integration
- 2. List out characteristics of messaging
- 3.Define concepts of key integration
- 4. What is Asynchronous Message-Based Integration?
- 5. Difference between synchronous and asynchronous MBI?
- 6. How to structure a message?
- 7.List out some properties of message structure?
- 8. What is Message-oriented middleware?
- 9. Advantages and disadvantages of MOM?
- 10. What are the categories of Middleware?
- 11. How to Construct of loosely coupled distributed application methods.
- 12. Message queuing system vs email system?
- 13.List out the metrics of reliability mechanisms?
- 14. What is the format of Asynchronous Message?
- 15. What is the format of synchronous Message?
- 16. Define java messaging services?
- 17. What are the elements of JMS?
- 18. What are the two models in JMS?
- 19. What are the challenges in reliability mechanisms?
- 20. What is the benefits of online infrastructure?

# 16-marks

- 1.a. Comparison between synchronous and asynchronous?
  - b. write a shorts on point-to-point message based model?
- 2. Explain in detail about MOM?
- 3. Explain in detail about reliability mechanisms?
- 4. Explain in detail about challenges in reliability mechanisms?
- 5. Explain in detail about message structure?
- 6. Explain in detail about JMS?
- 7. Explain in detail about message infrastructure with suitable example?
- 8. Explain in detail about XML based chain integration?
- 9. Explain in detail about message queuing model?

10.Explain various message model in MOM?

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# **Unit-V – ENTERPRISE SERVICE BUS**

### 2 –marks

- 1. Define ESB?
- 2. What are the capabilities of ESB?
- 3. Define routing?
- 4. Define protocol transformation?
- 5. Difference between federated and brokered in ESB?
- 6. Define data enrichment?
- 7. What is the service of data enrichment?
- 8. What do you mean by monitoring in ESB?
- 9. What are the types of monitoring?
- 10. What are the sections of monitoring?
- 11. Define correlation identifier?
- 12. List out the characteristics of ESB?
- 13. What are the benefits of ESB?
- 14. List out the disadvantages of ESB?
- 15. What is mean by SOA
- 16. What are the role of SOA
- 17. List out the benefits of SOA?
- 18. Why ESB and SOA is needed?
- 19. What is event based integration?
- 20. Difference between message based and integration?

# 16-marks

- 1.Explain in detail about ESB with suitable example?
- 2.Explain in detail about message based integration?
- 3.Write short notes on a) message brokered in ESB b) federated in ESB?
- 4. Explain detail about application message based integration?
- 5. Explain detail about event based integration?
- 6. Explain in detail about hardware based integration?
- 7. How to ESB support to SOA?
- 8.Explain deployment configuration 1) file 2)properties
- 9. Explain Lightweight service bus technologies in ESB?
- 10.write a short notes on routing, scalable connectivity ,protocol, message transformation?