|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Message Oriented Middleware** | | | | |
| **Year** | **No.** | **Question** | **Marks** | **Answers** |
| 18/19 | 1 | Explain the relevance of asynchronous communication in today’s software systems with reference to the term “Message Oriented Middleware” [10 marks]. | 20 | MOM one of the specific class of the middleware. In the distributed application environment, it’ll supports to exchange general-purpose messages. MOM exchanged messages by supporting of both synchronous and asynchronous interactions and it is identifying asynchronous messages by queuing. The asynchronous interaction model used to retain processing control. Asynchronous interaction model allows the caller to begin the processing independently of the processing state of the called procedure, function and method. In this method the code which is called by the caller may not execute straight away. The advantage of this model is that the server doesn’t need to be available to send the message, server can retrieve it at any time.  Today, asynchronous communication makes it possible for people to respond on their own terms. Through the asynchronous communication we can focus on our work without constantly interrupted and we can decide when we have to check the messages and when we have to respond. |
| 13/14 | 1 | Explain the terms ‘synchronous’ and ‘asynchronous’ communication in the context of distributed software architectures (8 marks). Then discuss the role of “Message Oriented Middleware” to facilitate asynchronous communication. (7 marks) Finally, provide two examples of synchronous communication and discuss where they might be used (5 marks each). | 20 |  |
| 13/14  Preston | 1 | Asynchronous communication plays a key role in many of today‟s software systems. Explain how it differs from synchronous communication. (5 marks) Illustrate the difference between the two architectures by referring to the two example architectures “RMI” and “Message Oriented Middleware”. (5 marks each) Justify the relevance of both synchronous and asynchronous communication by discussing a possible application for each of these architectures. (5 marks each) | 20 |  |
| 11/12 | 12 | Describe the difference between synchronous and asynchronous communication in middleware (6 marks) and illustrate this difference by referring to the two example architectures “Message Oriented Middleware” and “XMLRPC”. (3 marks each). Justify the relevance of both synchronous and asynchronous communication by discussing a possible application for each of these architectures (4 marks each). | 20 |  |