

**APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY**  
**FIRST SEMESTER M.TECH DEGREE EXAMINATION, DECEMBER 2017**  
**Computer Science and Engineering**  
**(Common to M.Tech CSE/Cyber Security)**  
**(07-CS-6111 DISTRIBUTED AND MOBILE OPERATING SYSTEMS)**  
Max. Marks: 60 Duration: 3 Hours

Answer all six questions. Part 'a' of each question is compulsory.  
Answer either part 'b' or part 'c' of each question

<b>Q.no.</b>	<b>Module 1</b>	<b>Marks</b>
<b>1a</b>	Compare and contrast distributed system over centralized system.	<b>4</b>
	<b>Answer b or c</b>	
<b>b</b>	Discuss in detail about sweep algorithm. Also discuss how it overcome the flaws of the existing system	<b>5</b>
<b>c</b>	You need to send a common message to your friends , Which mechanism is active to solve this situation in distributed system, explain its working	<b>5</b>
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<b>Q.no.</b>	<b>Module 2</b>	<b>Marks</b>
<b>2a</b>	Why logical clock is required? Point out the conditions to be satisfied by logical clocks?	<b>4</b>
	<b>Answer b or c</b>	
<b>b</b>	Show how wait-die and wound-wait protocol ensures prevention of deadlocks.	<b>5</b>
<b>c</b>	Explain in detail about the mechanisms used to handle deadlocks in distributed systems	<b>5</b>
<b>Q.no.</b>	<b>Module 3</b>	<b>Marks</b>
<b>3a</b>	How thread is implemented in user space?	<b>4</b>
	<b>Answer b or c</b>	
<b>b</b>	"Dynamic scheduling is a good fit for an event triggered design" – Comment on the statement.	<b>5</b>
<b>c</b>	Illustrate with diagrams, explain about system models in distributed systems	<b>5</b>
<b>Q.no.</b>	<b>Module 4</b>	<b>Marks</b>

**4a** Compare and contrast on-chip memory and switched multiprocessors. **4**

**Answer b or c**

**b** How shared-variable distributed shared memory offers advantages over the page-based distributed shared memory methods. **5**

**c** How page-based distributed shared memory works with the concepts of replication and how it achieves sequential consistency? **5**

**Q.no.** **Module 5** **Marks**

**5a** What is the role of resource manager and with diagram explain service life cycle **5**

**Answer b or c**

**b** The main building blocks are componets that you use as an application developer to build Android apps, Substantiate this statement with example. **7**

**c** You are going to create a whatsapp app. You need to override some callback methods that handle key aspects of the activity life cycle. What are they? **7**

**Q.no.** **Module 6** **Marks**

**6a** Note down the importance of AndroidManifest.xml file. **5**

**Answer b or c**

**b** While you are developing a sms based app for time table management in android, what should be its building blocks **7**

**c** Explain Android architecture in detail. **7**