Explain the differences of TCP over Ad hoc wireless networks.

Answer : (Model Paper-III, Q6(b) | April-18, Set-4, Q6(a))

	Problems	TCP-Bus	ATCP	TCP-F	TCP-ELFN	Split-TCP
1.	Congestion	Congestion is controlled by sending explicit messages like ICMP sources.	Congestion control is similar to TCP. However to notify TCP sender about congestion, ECN is used.	Congestion control is similar to TCP.	Congestion control is similar to TCP.	Proxy nodes handle congestion control within a zone since the connection is split in this type of network.
2.	Path dissociation	If path break occurs then, 1. ERDN and ICMP DUR is sent to TCP sender. 2. State gets changed to snooze. 3. TCP is put into present state.	Path break situation is similar to TCP.	If path break occurs then, 1. RFN is send to TCP sender. 2. State gets changed to snooze.	If path break occurs then, 1. ELFN is sent to TCP sender 2. State gets changed to standby.	Path break situation is similar to TCP.
3.	Loss of packet due to BER or collision.	This problem is similar to TCP.	Lost packets are retransmitted without the use of congestion control.	This problem is similar to TCP.	This problem is similar to TCP.	This problem is similar to TCP.
4.	Packets that are out-of-order gets handled. packet.	Packets are reached after path recovery any duplicate	Packets are reordered so that TCP do not send	This problem is similar to TCP.	This problem is similar to TCP.	This problem similar to TCP.
5.	End-to-end semantics	Present	Present	Present	Present	Absent
6.	Congestion window after the path is reestablished	Similar to previous path break	Calculated again for new path break	Similar to previous path break	Similar to previous path break	Congestion window and congestion is maintained and handled by proxy nodes.
7.	Buffering of packets at intermediate nodes	Buffering occurs	No buffering	No buffering	No buffering	Buffering occurs
8.	Dependence on routing protocol	Dependent	Dependent	Dependent	Dependent	Not Dependent
9.	Notification of explicit path break	Sent	Sent	Sent	Sent	Not sent
10.	Notification of explicit path reestablishment	Sent	Not sent	Sent	Not sent	Not sent