**DSR TEST CASES**

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|  | Description | Expected Results | Actual Results |
| #TC1 | Send Packet | Packet successfully sent |  |
| #TC2 | Receive Packet | Packet successfully received |  |
| #TC3 | Broadcast Message | Message broadcast to multiple nodes |  |
| #TC4 | Route Discover |  |  |
| #TC5 | Route Reply | Route sending reply message |  |
| #TC6 | Route Error | Route sending error message |  |
| #TC8 | Route Maintenance | DSR fix broken links |  |
| #TC9 | Route Repair |  |  |
| #TC10 | Broken Route |  |  |
| #TC11 | Shortest Route | Packet sent through shortest route |  |
| #TC12 |  |  |  |
| #TC13 |  |  |  |
| #TC14 |  |  |  |
| #TC15 |  |  |  |
| #TC16 |  |  |  |

**A: Mobile Ad Hoc General Concept**

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| Description | Expected Results | Actual Results |
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**B: DSR Specific Attributes**

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|  | Description | Expected Results | Actual Results |
| Route Discovery | Automatic route discovery | * DSR successfully routing automatically and is determined by the protocol * DSR successfully send message |  |
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| Route discovery frequency |  |  |
| Route Request |  |  |  |
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| Hop limit |  |  |
| Restricted Propagation of Route Request |  |  |
| Route Cache | Maintaining route cache information | Each node successfully maintains a route cache and remember the routes that it has learnt about |  |
| Route cache updates |  |  |
| Route cache has no available information |  |  |
| Caching overhead routing information |  |  |
| Route Replay | Complete route discovery | A trying to find route to E. Each intermediate node appends its ID at the end. E knows the reverse route and successfully sends a route reply. |  |
| Partial route discovery | A is trying to find a route to E. C has a route to E in its route cache. C successfully sends back the complete route to A. |  |
| Waiting before replay |  |  |
| Caching overhead routing information |  |  |
| Route Maintenance | Alternative route for broken route | A successfully using alternative route |  |
| New route discovery for broken route |  |  |
| Active acknowledgment |  |  |
| Route Error Message |  |  |
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| Packet | Size | The number of control messages is much smaller |  |
| Energy-efficient | DSR is successfully showing more energy-efficient attribute and does not congest the network with too many control messages. |  |
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