1. Explain AODV routing protocol.

Ans: Abstract The Ad hoc On-Demand Distance Vector (**AODV**) **routing protocol** is intended for use by mobile nodes in an ad hoc network. It offers quick adaptation to dynamic link conditions, low processing and memory overhead, low network utilization, and determines unicast **routes** to destinations within the ad hoc network.

1. What are the differences between wired and wireless networks?

|  |  |  |
| --- | --- | --- |
| Speed and Bandwidth | High (up to 100mbps) | Low (up to 54mbps) |
| Reliability | High(Due to existence of wired technology and as manufactured cable have higher performance) | Reasonably high( because if the major section like router break down the whole network will be affected) |
| Cables | Ethernet, copper and optical fibers | Works on radio waves and microwaves |
| Mobility | Limited, as it operates in the area covered by connected systems with the wired network | Not limited, as it operates in the entire wireless network coverage |
| Security | Good | Weak |
| Quality of Service | Better | Poor |
| Connection setup time | Less | More |
| Devices used | Hubs and Switches | Routers |
| Cost | Less as cables are not expensive | More as wireless subscriber stations, wireless routers, wireless access points and adapters are expensive |
| Applications | LAN (Ethernet), MAN | WLAN, WPAN(Zigbee, bluetooth), Infrared, Cellular(GSM,CDMA, LTE) |
| Standards | IEEE802.3 | IEEE802.11a, IEEE 802.11b , IEEE802.11g |

1. Is AODV a reactive or proactive protocol?

Ans: **AODV** is a **reactive** routing **protocol**. It uses an on-demand approach for finding routes, that is, a route is established only when it is required by a source node for transmitting data packets.

1. To see the throughput in a graphical representation which tool do you use?
2. What parameters do we specify to generate the mobility of nodes?

Ans: Many **mobility** models **can** be used in mobile ad hoc networks, and each **mobility** model has its own **mobility** patterns that **will** impact the protocol performance. The **parameters** considered for direct **mobility** metrics **are** as follows: relative velocity, temporal dependence, spatial dependence, and pause time.

1. Name few parameters that are used for configuring wireless nodes?
2. Expand the acronym "GOD" object in ns-2?

Ans: Global centralized routing is sometimes called “God” routing.

1. For a TCP connection, the destination node should be attached to\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ agent?

Ans: TCP Sink

1. What does omni antenna signify?

Ans: **is** a class of **antenna** which radiates radio wave power uniformly in all directions in one plane,

1. In the below line what does 3.0 represent

$ns at 10.0 "$node\_(0) setdest 250.0 250.0 3.0"

Ans: X-axis

1. What does 802.11 stands for?

Ans: **802.11**a. IEEE Wireless LAN Standard (IP over Ethernet, uses 5GHz band, nominal 54Mbps data)

1. What is PriQueue?

Ans: which gives priority to routing protocol packets, inserting them at the head of the queue. It supports running a filter over all packets in the queue and removes those with a specified destination address