What is 5G NSA network architecture. short note

5G NSA (Non-Standalone) network architecture refers to a transitional framework where 5G networks are deployed alongside existing 4G LTE infrastructure. In this setup, the 5G radio access network (RAN) is integrated with the 4G LTE core network (Evolved Packet Core or EPC). The main characteristics of 5G NSA include:

1. **Dual Connectivity**: Devices connect to both 4G and 5G networks simultaneously. The 4G network handles control signaling,

while the 5G network provides enhanced data speeds and capacity.

2. **Cost-Efficiency**: Leveraging existing 4G infrastructure reduces the initial investment needed for 5G deployment, making it a cost-effective solution for network operators.
3. **Faster Rollout**: Deployment of 5G NSA allows for quicker introduction of 5G services compared to building a standalone 5G network from scratch.
4. **Incremental Upgrades**: Network operators can gradually enhance their networks, upgrading components from 4G to 5G over

time without needing a complete overhaul.

Overall, 5G NSA serves as an interim step toward the full realization of 5G capabilities, providing immediate benefits while paving the way for future 5G Standalone (SA) networks.