**DV162\_13\_PAS On Wireless Network Standards**

**Possible Answer Sheet**

1. What is 802.11a speed?  
Ans: 54Mbps (Max Theoretical Speed)

2. What is 802.11a Frequency & range?  
Ans: 5 GHz and its Indoor range is 30m-75m, outdoor range is up to 300m (Under Ideal Conditions)

3. What are some other features of 802.11a?  
Ans: It uses Orthogonal Frequency Division Multiplexing(OFDM), It provides a large number of non-overlapping channels, It has less interference, for Security Purpose it uses WPA (Wifi Protected Access)

4. What is 802.11b Speed?  
Ans: 11Mbps

5. What is 802.11b Frequency & range?  
Ans: 2.4GHz and Range is (30-100)m indoor and up to 300m Outdoor

6. What are some other features of 802.11b?  
Ans: Long Range, Uses DSSS (Direct Sequence Spread Spectrum) Modulation, Backward Compatible with 802.11a, It uses WEP (Wired Equivalent Privacy).

7. What is 802.11g Speed?  
Ans: 54Mbps

8. What is 802.11g Frequency & range?  
Ans: 2.4GHz and Indoor Range: (30-45)m, Outdoor Range: (30-90)m

9. What are some other features of 802.11g?  
Ans: Backward Compatibility, DRS(Dynamic Rate Shifting), Supports WEP, WPA, WPA2 Security Protocols.

10. What is 802.11n Speed?  
Ans: Up-to 600 Mbps

11. What is 802.11n Frequency & range?  
Ans: 802.11n operates in both frequencies 5GHz and 2.4GHz and Indoor Range Up-to 45 m and 75 m and Outdoor Range up-to 90 m and 250 m respectively with frequencies.

12. What are some other features of 802.11n?  
Ans: Increased throughput by use of MIMO, WPA2 Encryption, Better Power Management feature

13. What is 802.11ac Speed?  
Ans: Up-to 1Gbps.

14. What is 802.11ac Frequency & range?  
Ans: 5MHz and Indoor Range is 45 m while Outdoor is 90 m.

15. What is 802.11ax Speed?  
Ans: Up-to 12Gbps

16. What is 802.11ax Frequency & range?  
Ans: In both 2.4GHz and 5GHz, Indoor Range 45 m and Outdoor Range 90 m

17. What is RFID?  
Ans: RFID stands for Radio Frequency Identification. It is technology that uses radio waves to track and identify things.

18. How does RFID work?  
Ans: RFID systems contain Tags, that tags have antennas or small coils that respond on receiving radio waves.