

(v) In spread spectrum, PN code is assigned

- (a) same spectrum and same PN code
- (b) same spectrum and different PN code
- (c) different spectrum and different PN code
- (d) different spectrum and same PN code.

Time Allotted : 15 mins

Full Marks : 70

(vi) In Mobile Assisted Handoff (MAHO), the handoff takes place when  
 (a) the power received by the mobile station from other base station is more than the serving base station

*Candidates are required to answer Group A and any 5 (five) from Group B to E, taking at least one from each group.*

*Candidates are required to give answer in their own words as far as practicable.*

(vii) How many slaves can be connected to the master using SCO links in bluetooth?

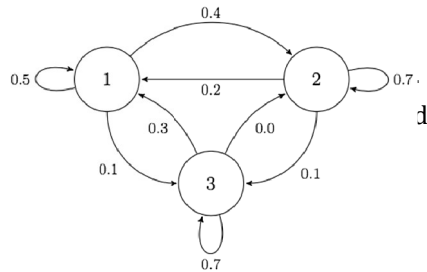
- (a) 3
- (b) 4
- (c) 5
- (d) 7.

**Group - A  
(Multiple Choice Type Questions)**

1. Choose the correct alternative for the following: **10 × 1 = 10**

- (i) WLAN 1. 802.11  
 2. Bluetooth 2. 802.14  
 3. Zigbee 3. 802.15  
 4. WiMAX 4. 802.16
- (ii) Fading is caused due to  
 1. multi path propagation  
 2. obstacles  
 3. frequency variations at the source
- (iii) The process in which a home agent intercepts packets destined to one of its members and forwards it over the network to the foreign agent is known as  
 (a) tunnelling (b) encapsulation  
 (c) (2) and (3) are correct (d) all are correct.
- (iv) Adjacent cell interference between the neighbouring base stations is known as  
 (a) discovery (b) handoff  
 (c) co-channel interference (d) none of the above
- (v) Which of the following routing protocols are not used in MANETs?  
 (a) assigning different group of channels (b) DSR  
 (c) AODV (d) OSPF  
 (e) using transmitters with different power levels  
 (f) using different antennas  
 (g) all of the above

- 2. (a) Find the state transition matrix and steady state probabilities of all states of the following CTMC model.
- (i) falls with square of the distance l
- (ii) increases with square of the distance l
- (iii) increases with gains of transmitt



- (iv) Which one of the following event is not possible in wireless LAN?  
 (a) Collision detection (b) Acknowledgement of data frames  
 (c) Multi-mode data transmission (d) none of the mentioned.
- (c) What are the main problems of signal propagation? State the reason why radio waves do not follow straight line. Why is reflection both useful and harmful?

**6 + 4 + 4 = 12**

