

PSG COLLEGE OF ARTS & SCIENCE  
(AUTONOMOUS)  
BSc DEGREE EXAMINATION JUNE 2014  
(Sixth Semester)

Branch – ELECTORNICS

**SKILL BASED ELECTIVE-II : MOBILE TECHNOLOGY**

Time : Three Hours

Maximum : 75 Marks

**SECTION-A (20 Marks)**

Answer ALL questions

ALL questions carry EQUAL marks (10 x 2 = 20)

- 1 Define – Cell Splitting.
- 2 Define – Cell Cluster.
- 3 Expand – TDMA.
- 4 Expand – SDMA.
- 5 Define – Network.
- 6 List any two GSM signaling.
- 7 Define – GPRS.
- 8 List any two GPRS interfaces.
- 9 Expand – UMTS.
- 10 Define – WiFi.

**SECTION - B (25 Marks)**

Answer ALL Questions

ALL Questions Carry EQUAL Marks (5 x 5 = 25)

- 11 a Write a short note on cellular structure.  
OR  
b Discuss about the mobile communication antennas.
- 12 a Write a short note on FDMA.  
OR  
b Write a short note on CDMA.
- 13 a Write a short note on Radio Sub System.  
OR  
b Write a short note on GSM channel organization.
- 14 a Write a short note on GPRS signaling.  
OR  
b Write a short note on GPRS applications.
- 15 a Write a short note on UMTS handover.  
OR  
b Write a short note on UMTS time slots.

**SECTION - C (30 Marks)**

Answer any THREE Questions

ALL Questions Carry EQUAL Marks (3 x 10 = 30)

- 16 Write a note on (i) Frequency Re Use  
(ii) Co-channel and adjacent channel interference.
- 17 Explain in details about the spectral efficiency of different wireless access technologies.
- 18 Write in details about the Authentication and Security and routing of a call to a mobile subscriber.
- 19 Explain in details about the GPRS states of mobility management.
- 20 Write in details about the comparison overview of different integration architectures.