

**PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)**

**MCom (CA) DEGREE EXAMINATION MAY 2026
(Second Semester)**

Branch – COMMERCE WITH COMPUTER APPLICATIONS

MOBILE COMPUTING & BUSINESS APPLICATIONS

Time: Three Hours

Maximum: 75 Marks

SECTION-A (10 Marks)

Answer **ALL** questions

ALL questions carry **EQUAL** marks (10 × 1 = 10)

Module No.	Question No.	Question	K Level	CO
1	1	Which of the following is considered as primary mobile computing device? (i) Desktop Computer (ii) Smartphone (iii) Mainframe (iv) Landline phone	K1	CO1
	2	Which Cell splitting increases the capacity of a cellular system? (i) Increases antenna height (ii) Increases the number of channels per channel (iii) Increases the number of times channels are reused (iv) Decreases the number of base stations	K2	CO1
2	3	What is the size of an IPv4 address? (i) 16 bits (ii) 32 bits (iii) 64 bits (iv) 128 bits	K1	CO2
	4	What is the default subnet mask for a Class C IP address? (i) 255.0.0.0 (ii) 255.255.0.0 (iii) 255.255.255.0 (iv) 255.255.255.255	K2	CO2
3	5	What are the three broad categories of wireless transmission? (i) LAN, WAN, PAN (ii) Radio waves, Microwaves, Infrared waves (iii) Telephone, Satellite (iv) Bluetooth	K1	CO3
	6	Which generation of wireless technology first introduced widespread digital communication? (i) 1G (ii) 2G (iii) 3G (iv) 4G	K2	CO3
4	7	What is the purpose of "frequency reuse" in cellular network planning? (i) To decrease network speed (ii) To use the same frequency in different cells to improve efficiency (iii) To increase the number of base stations (iv) To eliminate the need for a SIM card	K1	CO4
	8	What is the main purpose of frequency management and channel assignment? (i) To increase transmission power (ii) To minimize interference (iii) To decrease frequency bandwidth (iv) To reduce the number of cells	K2	CO4
5	9	What does GSM stand for? (i) Global System for Mobile Communications (ii) General System for Mobile (iii) Global Standard for Modeling (iv) Geographical System of Mobile	K1	CO5
	10	Which channel is used for the base station to broadcast information like network identity? (i) PCH (ii) BCCH (iii) RACH (iv) AGCH	K2	CO5

Cont...

SECTION - B (35 Marks)Answer **ALL** questions**ALL** questions carry **EQUAL** Marks

(5 × 7 = 35)

Module No.	Question No.	Question	K Level	CO
1	11.a.	Demonstrate the Mobile Computing functions.	K2	CO1
		(OR)		
	11.b.	List the types of Wireless Technology.		
2	12.a.	Compare and contrast IPV4 Vs IPV6.	K3	CO2
		(OR)		
	12.b.	Explain the Operation of Mobile IP and cellular IP.		
3	13.a.	Analyze multiplexer and modulation techniques.	K4	CO3
		(OR)		
	13.b.	Examine about Wireless Datagram Protocol.		
4	14.a.	Expound on Cellular Concepts.	K5	CO4
		(OR)		
	14.b.	Explicate on (i) Channel Assignment Strategies (ii) Frequency management.		
5	15.a.	Design the GSM Architecture.	K6	CO5
		(OR)		
	15.b.	Discuss on GSM Security and authentication methods.		

SECTION - C (30 Marks)Answer **ANY THREE** questions**ALL** questions carry **EQUAL** Marks

(3 × 10 = 30)

Module No.	Question No.	Question	K Level	CO
1	16	Classify about the Architecture of Mobile Computing.	K2	CO1
2	17	What is IPV4? What are the categories of IPV4? Explain with example.	K3	CO2
3	18	Discuss on WAP.	K4	CO3
4	19	Elaborate on Cellular System.	K5	CO4
5	20	How will you build GSM Interface and explain about the mobility management in GSM.	K6	CO5

Z-Z-Z

END