

**DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/  
MANAGEMENT/COMMERCIAL PRACTICE — APRIL, 2018**

**MOBILE COMPUTING**

[Time : 3 hours

(Maximum marks : 100)

**PART — A**

(Maximum marks : 10)

Marks

I Answer *all* questions in one or two sentences. Each question carries 2 marks.

1. Write any four application of mobile communication.
2. What is GSM ?
3. Which is the cable replacement protocol of blue tooth ?
4. Write any two types of VPN.
5. Which channel allocation method is used to allocate separate space to users ?

(5×2 = 10)

**PART — B**

(Maximum marks : 30)

II Answer any *five* of the following questions. Each question carries 6 marks.

1. Explain the working of a cellular system and its advantages.
2. Explain the frequency division multiple access and time division multiple access in detail.
3. Briefly explain the handover procedure in cellular system.
4. Explain the applications of a satellite system.
5. Write down and explain the advantages of Wireless LAN.
6. Explain the infrared and radio transmission in detail.
7. Write short notes on CDMA 2000.

(5×6 = 30)

PART — C  
(Maximum marks : 60)

(Answer *one* full question from each unit. Each full question carries 15 marks.)

UNIT — I

- |     |   |   |
|-----|---|---|
| III | (a) Explain the applications of mobile computing in detail. | 8 |
|     | (b) Explain Hidden & Exposed, Near and Far Terminals.       | 7 |

OR

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|----|--|---|
| IV | (a) Explain SDMA and CDMA in detail.   | 7 |
|    | (b) Compare SDMA, FDMA, TDMA and CDMA. | 8 |

UNIT — II

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|---|--|----|
| V | Explain the GSM architecture and services in detail with neat diagram. | 15 |
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OR

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| VI | Explain GEO, LEO, MEO and its advantages and disadvantages. | 15 |
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UNIT — III

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|-----|--|----|
| VII | Explain the architecture of IEEE 802.11 in detail with neat diagram. | 15 |
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OR

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| VIII | Explain blue tooth architecture and applications in detail with neat diagram . | 15 |
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UNIT — IV

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|----|--------------------------------|---|
| IX | (a) Write a short note on WLL. | 8 |
|    | (b) Write short note on VPN.   | 7 |

OR

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|---|--|---|
| X | (a) Write short notes on Mobile Operating systems. | 7 |
|   | (b) Explain Wimax and WIFI.                        | 8 |