

17632

21819

3 Hours / 100 Marks

Seat No.

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- Instructions :**
- (1) All Questions are *compulsory*.
 - (2) Answer each next main Question on a new page.
 - (3) Illustrate your answers with neat sketches wherever necessary.
 - (4) Figures to the right indicate full marks.
 - (5) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

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|-----------|---|--------------|
| 1. | (A) Attempt any THREE of the following : | 12 |
| | (a) Enlist any four mobile computing devices. | |
| | (b) State and explain the services provided by GSM. | |
| | (c) Name the mobility databases and explain their functions. | |
| | (d) Describe symmetric key cryptography. | |
| | (B) Attempt any ONE of the following : | 6 |
| | (a) Explain VLR failure restoration procedure. | |
| | (b) With neat diagram, describe the life cycle of android activity. | |
| 2. | Attempt any FOUR of the following : | 16 |
| | (a) Define mobile computing. List and explain various mobile computing functions. | |
| | (b) Draw diagram and explain Co-channel interference (CCI) and Adjacent channel interference (ACI). | |
| | (c) With neat labelled diagram, describe GSM frame architecture. | |
| | (d) Explain VLR overflow control algorithm for registration. | |
| | (e) List applications and limitations of GPRS. | |
| | (f) Explain stream ciphering and block ciphering. | |

- 3. Attempt any FOUR of the following :** **16**
- (a) Describe any two techniques for improving coverage and capacity in cellular system.
 - (b) Explain signal processing in GSM with block diagram.
 - (c) Explain HLR failure restoration procedure.
 - (d) Describe CDMA 2000.
 - (e) State four features of Linux OS.
- 4. (A) Attempt any THREE of the following :** **12**
- (a) Explain frequency reuse concept. State its advantages.
 - (b) Explain GSM. Location tracking & call setup. procedure.
 - (c) With neat diagram, describe 3G security architecture.
 - (d) Explain the multifactor security.
- (B) Attempt any ONE of the following :** **6**
- (a) Explain GSM control channel types.
 - (b) Write a stepwise procedure to create program for user interface in android.
- 5. Attempt any TWO of the following :** **16**
- (a) With a block diagram, describe GSM architecture.
 - (b) Explain GPRS network nodes.
 - (c) List and explain components of information security.
- 6. Attempt any FOUR of the following :** **16**
- (a) With a diagram, describe Hand off procedure. List the types of Hand offs.
 - (b) Describe the process of GSM to PSTN call.
 - (c) Explain UI Layouts available in Android environment.
 - (d) Explain Location update for a inter LA movement.
 - (e) Describe routing of packets in GPRS in detail.
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