

17632

21415

3 Hours / 100 Marks

Seat No.

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Instructions : (1) All Questions are *compulsory*.

(2) Illustrate your answers with neat sketches wherever necessary.

(3) Figures to the right indicate full marks.

(4) Assume suitable data, if necessary.

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| 1. (A) Answer any THREE of the following : | 12 |
| (a) What is mobile computing ? Give its functions. | |
| (b) State any four features of GSM. | |
| (c) Write an algorithm for call termination of VLR overflow. | |
| (d) Explain components of Information Security. | |
| (B) Answer any ONE of the following : | 6 |
| (a) Write an algorithm for Registration of VLR overflow. | |
| (b) Explain life cycle of Android Activity with neat sketch. | |
|
2. Answer any FOUR of the following : |
16 |
| (a) Explain channel Assignment strategies. | |
| (b) Explain cell splitting & sectoring. | |
| (c) Draw and explain frame structure of GSM. | |
| (d) Explain any one Symmetric key Algorithm. | |
| (e) Explain Mobility Database. | |
| (f) Give the features of Windows CE. | |

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- 3. Answer any FOUR of the following : 16**
- (a) Explain Frequency reuse with neat sketch.
 - (b) Explain GSM channel types.
 - (c) Explain HLR failure Restoration.
 - (d) Give application and limitations of GPRS.
 - (e) Give the features of Symbian OS.
 - (f) Explain Android architecture with diagram.
- 4. (A) Answer any THREE of the following : 12**
- (a) Explain Handoff Strategies.
 - (b) Explain how GSM to PSTN call takes place in Mobile Environment.
 - (c) What is multifactor security ? How it is achieved in Mobile Environment ?
 - (d) What do you mean by attacks ? Give its categories.
- (B) Answer any ONE of the following : 6**
- (a) Explain Location tracking and call setup in GSM.
 - (b) Explain any one public key Cryptography algorithm.
- 5. Answer any TWO of the following : 16**
- (a) Explain GSM architecture in detail with neat sketch.
 - (b) Explain 3GPP security and smart card security.
 - (c) Explain GPRS architecture in detail with neat sketch.
- 6. Answer any FOUR of the following : 16**
- (a) What is co channel Interference ? How it can be controlled ?
 - (b) How a signal is processed in GSM ?
 - (c) What is GSM Location update ? When it is occurred ?
 - (d) Describe step by step procedure for VLR failure Restoration.
 - (e) Describe data services used in GPRS.
 - (f) Explain UMTS in detail.
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