

Total No. of Questions : 10]

SEAT No. :

P3652

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[4959]-1145**B.E. (Information Technology, Computer Engineering &
Electronics and Telecommunications)****UNIFIED COMMUNICATIONS AND CONTACT CENTER
APPLICATIONS****(2012 Pattern) (Open Elective) (Semester-II)****Subject Code****414464 E : Open Elective (Information Technology)****410452 : Elective-IV (Computer Engineering)****404192 : Elective-IV (Electronics and Telecommunications)***Time : 2½ Hours]**[Max. Marks : 70**Instructions to the candidates:*

- 1) Answer Q1 or Q2, Q3 or Q4, Q5 or Q6, Q7 or Q8, Q9 or Q10.
- 2) Neat diagrams must be drawn wherever necessary.
- 3) Figures to the right indicate full marks.
- 4) Assume suitable data, if necessary.

- Q1)** a) What is ACD? Explain role of an ACD in a Contact Center. [8]
 b) What are agent states? Explain typical states of a Contact Center Agent. [8]

OR

- Q2)** a) What is CTI? What are types of CTI? What are the server and agent side CTI functionalities? [8]
 b) Explain the functionalities of PABX, ACD, Self Service and CTI in an Inbound Call Center. [8]

- Q3)** a) Explain the core components of Workforce Optimization with a brief description and advantage of each. [8]
 b) What are campaigns? Explain briefly different phases of campaign management and execution. [8]

OR

- Q4)** a) What is outbound CPA and call classification? Explain how call classification is done at a high level and how it helps outbound contact centers. [8]
 b) What is blending? How does it work? [8]

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- Q5)** a) What is WebSocket and how it differs from other communication protocols over HTTP? [8]
 b) What are UCaaS and CCaaS and list five key advantages of this? [8]

OR

- Q6)** a) What is NAT and how STUN protocol help NAT traversal in case of WebRTC? [8]
 b) What is virtualization and explain the role of hypervisor in the same context? [8]

- Q7)** a) What are the mandatory information elements in an ISDN Setup message? Why are these mandatory in a setup message? [8]
 b) What is the difference between SIP dialog, transaction and session? Why do you need to increment cSeq number for subsequent request in a dialog? [8]

OR

- Q8)** a) What do you mean by stateless proxy servers? Why they are useful? What are drawbacks? [8]
 b) Explain the call flow for a basic ISDN call flow. [8]

- Q9)** Write notes on: [6]
 a) BYOD.
 b) Wink start signaling.

OR

- Q10)** Write notes on: [6]
 a) Real Time Speech Analytics.
 b) Difference between CAPEX and OPEX in cloud computing paradigm.

