

CAT (40 MARKS)

- a.** Still in its infancy, cloud computing presents many challenges for industry and academia. Discuss challenges faced by the cloud industry.
- b.** Describe the characteristics of major cloud computing solutions citing references to practical implementations.
- c.** The idea of renting computing services by leveraging large distributed computing facilities has been around for long time. It dates back to the days of the mainframes in the early 1950s. From there on, technology has evolved and been refined. This process has created a series of favorable conditions for the realization of cloud computing. Discuss the role played by the following technologies in the realization of cloud computing: distributed systems, virtualization, Web 2.0, service orientation, and utility computing.
- d.** Citing examples, discuss any two pricing models used by cloud service providers.
- e.** Briefly give differences and similarities between cloud computing, grid computing, and high-performance computing.
- f.** Cloud computing seems to be the panacea for data or compute intensive problems facing today, with very small upfront costs and seemingly infinite capacity on demand. With so much going for it, explain reasons as to why some companies staying away.
- g.** One of the utility services of the cloud is data storage. This means that organizations can be provided with infrastructure for cloud data storage. Discuss security implications for such a service to client organizations.