

Please check whether you have got the right question paper.

- N.B:
1. **All questions are compulsory.**
 2. Figures to the **right** indicate full marks.
 3. **Assume additional data if necessary** but state the same clearly.
 4. Symbols have their usual meanings and tables have their usual standard design unless stated otherwise.
 5. Use of **calculators** and statistical tables are **allowed**.

- Q.1** Attempt **any two** of the following **(12)**
- a) Explain the various annotations used in JAX-WS. **06**
 - b) Explain the features that distinguish web Services from other distributed systems. **06**
 - c) Explain the concept of Service End point Interface and Service Implementation Bean with a simple example. **06**
 - d) Explain the different patterns of web service operations supported by WSDL. **06**
- Q.2** Attempt **any two** of the following **(12)**
- a) Explain the SOAP Message Architecture with neat diagram. **06**
 - b) Explain the various methods in SOAP and Logical handlers. **06**
 - c) Write a simple SOAP request Message and SOAP response message for a web service operation GetStockPrice () that sends a parameter Stock Name and returns the price of the stock. **06**
 - d) Explain the different techniques for sending binary data via SOAP web services. **06**
- Q.3** Attempt **any two** of the following **(12)**
- a) Explain the concept of REST web services. **06**
 - b) Explain the different HTTP verbs and status codes and meaning associated with it. **06**
 - c) Write a short note on interoperability between Java platform and WCF. **06**
 - d) Explain the concept of Wire-Level Security. **06**
- Q.4** Attempt **any two** of the following **(12)**
- a) Explain the concept of IaaS, PaaS and SaaS. **06**
 - b) Write a short note on Elastic Block Storage. **06**
 - c) Write a short note on AWS Data Pipeline. **06**
 - d) Explain the various services in Amazon Cloud. **06**
- Q.5** Attempt **any two** of the following **(12)**
- a) Explain the concept of User authentication and authorization. **06**
 - b) Explain the major elements of a Soap Envelope. **06**
 - c) Explain basics of HTTPS. **06**
 - d) Write a short note on Elastic Load Balancing. **06**