

POKHARA UNIVERSITY

Level: Bachelor	Semester: Spring	Year : 2019
Programme: BE		Full Marks: 100
Course: Enterprise Application Development		Pass Marks: 45
		Time : 3hrs.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) What are the importance of Web Services? Explain the technologies used in web services. 3+4
- b) What are Data exchange formats? Differentiate between DTD and XML Schema. 3+5
2. a) What is CI/CD? How continuous integration improves collaboration and quality? 3+4
- b) What do you mean by version control? Describe the workflow of GIT, one of the popular version control tools, with a suitable diagram. 4+4
3. a) What are different ways to implement IOC? What is the difference between constructor injection and setter injection? 4+4
- b) Explain Factory pattern. How do singletons affect testing? 2+5
4. a) Mention the benefits of MVC pattern. Demonstrate MVC architecture with the help of Servlet, JSP, POJO classes and JDBC. 3+5
- b) What is Data access object pattern? How do you design business layer and presentation layer of your web application? 3+4
5. a) What is RESTful API? What are the advantages and disadvantages of SOA? 4+4
- b) What is state based attack? Explain how do you prepare statement prevent SQL injection? 3+4
6. a) What is Test Driven Development? What are the differences between TDD and traditional testing? 3+4
- b) Explain the iterative and incremental development in agile. What are the advantages of pair programming? 4+4
7. Write short notes on: (**Any two**) 2×5
 - a) Coding by Convention
 - b) ROA
 - c) Enterprise Java Bean