Course No.   : CSIZG514/SEZG514
Course Title   : Introduction to DevOps
Nature of Exam   : Open Book
Weightage   : 30%
Duration   : 2 Hours
Date of Exam   : XXX

No. of Pages	= 2
No. of Questions	= 5

Note to Students:
1. Please follow all the *Instructions to Candidates* given on the cover page of the answer book.
2. All parts of a question should be answered consecutively. Each answer should start from a fresh page.
3. Assumptions made if any, should be stated clearly at the beginning of your answer.

Q.1. An organization has not yet implemented all DevOps practices. The team identified the problem of increasing technical debt. Which DevOps practices will result in reducing technical debt, how and list different tools to automate the same?   [5 Marks]

Q.2. Answer the following questions:
   a) Mention the advantages of Forking workflow over other Git workflows.   [2 Marks]
   b) What is the difference between a git pull and a git fetch?   [1 Mark]
   c) Explain what is merge conflict and how you will handle it in Git.   [2 Marks]

Q.3. A student registration system simplifies program setup for students. It is a management information system that can quickly and efficiently collect student registration information each term, create statistics on students' basic, registration, and payment information, and deliver analytical conclusions. Online registration makes it easier for new students to sign up from any Internet-enabled computer, reduces paperwork, and boosts participation and marketing. Development team decided to go with component-based design development for Online registration application. Answer the following questions in line to this scenario:
   a) What do you mean by Component?   [2 Marks]
   b) Draw and explain the Dependency Graphs for the given application   [3 Marks]
   c) Draw Pipelining Dependency Graphs   [3 Marks]
   d) What are the challenges of Component-based design?   [2 Marks]

Q.4. Will DevOps movement bring change in culture? What will be its impact on people and practices. And being a DevOps consultant, which practices you would suggest to keep the feedback healthy and improve the product operation abilities?   [5 Marks]
Ans:

Q.5. Answer the following questions
  a) A company wants to transform their culture to DevOps, where in one department people thinks DevOps and Agile is all same. Being a DevOps consultant what would you suggest them.   [3 Marks]
  b) An organization has acquired latest automation tools hoping it will increase the productivity by eliminating all bottlenecks. Being a DevOps specialist comment your view.   [2 Marks]