

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

PG DEGREE EXAMINATION DECEMBER 2023
(Third Semester)

TRANS DISCIPLINARY COURSE
(Common to PG Programmes)

DEVOPS METHODOLOGY AND TOOLS

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(5 x 1 = 5)

- 1 Who is the father of DevOps?
(i) Patrick Debois (ii) Gene Kim
(iii) David Farley (iv) Bridget Kravchenko
- 2 What is Maven?
(i) A Java library (ii) A Java framework
(iii) A build tool (iv) An IDE
- 3 Jenkins is a ----- tool.
(i) bug tracking (ii) continuous integration & delivery
(iii) project management (iv) software development platform
- 4 Pipeline in Jenkins refers to
(i) A set of plugins that provide additional functionality to Jenkins
(ii) A series of automated steps that build, test and deploy software
(iii) A graphical user interface for managing Jenkins
(iv) A feature that allows user to create and manage Jenkins jobs
- 5 Kubernetes Pod means
(i) A group of containers (ii) A unit of deployment in kubernetes
(iii) A network segment (iv) A virtual machine

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks

(5 x 3 = 15)

- 6 a. Produce the principals of Devops.
OR
b. Illustrate the ways to use SSH for GIT commands.
- 7 a. Analyze how maven plugins are applied?
OR
b. Explain the notations behind the Maven build lifecycle.
- 8 a. Explain the two types of Jenkins.
OR
b. Classify the ways for creating database in Jenkins.
- 9 a. Discuss the benefits of using Jenkins pipeline.
OR
b. Explain how to send notifications in Jenkins?
- 10 a. State the main components of kubernetes cluster.
OR
b. Explain pods in kubernetes.

Cont...

SECTION -C (30 Marks)

Answer **ALL** questions

ALL questions carry **EQUAL** Marks

(5 x 6 = 30)

11 a. Interpret the track for DevOps in the current scenario.

OR

b. Predict the features of GitHub forks.

12 a. Create an appraisal note on "Maven POM".

OR

b. Differentiate the ways of using Repositories by Maven-External Dependency".

13 a. Demonstrate the method of configuring Jenkins.

OR

b. Develop an appraisal note on Jenkins authorization.

14 a. Create your own simple Jenkins pipeline.

OR

b. Compile the ways of managing plugins in Jenkins.

15 a. Analyze the architecture of kubernetes.

OR

b. Make a model for kubernetes networking.

Z-Z-Z

END