S.No. : 102

BCACSN 15301

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Following Paper ID and Roll No. to be filled in your Answer Book.

PAPER ID : 26423

Roll No. 1 2 3 0 2 6 4 0 2 8

BCA Examination, 2025-26

(Odd Semester)

DEPLOYMENT OF PRIVATE CLOUD

Time : Three Hours] *[Maximum Marks : 60*

Note :– Attempt all questions.

SECTION–A

1. Attempt all parts of the following : $8 \times 1 = 8$

(a) OpenShift is developed by which company? Redhat

(b) In OpenShift, which component schedules pods to nodes?

(c) What does PVC stand for in OpenShift?

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(d) What is the smallest deployable unit in OpenShift?

(e) Which OpenShift feature creates application images directly from source code?

(f) What is the use of a route in OpenShift?

(g) Which file is used to create a custom image?

(h) What type of storage organizes data as objects with unique IDs and metadata?

SECTION – B

2. Attempt any two parts of the following : 2×6=12

(a) Describe key components of OpenShift with roles of the master node, worker node and API server.

(b) Explain any three types of storage available in OpenShift with examples.

(c) Explain the steps to deploy an application using OpenShift web console.

(d) Describe main security policies in OpenShift.

SECTION – C

Note :– Attempt all questions. Attempt any two parts from each questions. 8×5=40

3. (a) Define OpenShift and discuss its advantages and disadvantages.

(b) Explain in detail the concept of containers, pods and services in OpenShift.

(c) Describe how builds and image streams work in OpenShift?

4. (a) Differentiate between OpenShift and Kubernetes with suitable points.

(b) Describe the process of creating custom container images using Dockerfile.

(c) How does OpenShift CLI help in managing resources and deployments?

5. (a) What is persistent storage in OpenShift? Explain PV and PVC with examples.

(b) Explain access control and user management in OpenShift.

(c) Discuss scaling, rolling updates and rollback features in OpenShift deployments.

6. (a) Explain OpenShift networking with routes, services and pod communication.

(b) Write short notes on monitoring and logging tools.

(c) Explain three types of OpenShift platforms with one key feature and example of each.

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