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UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, December 2020

Course: Container Orchestration & Infrastructure Automation | **Semester: V**
Program: B.Tech CSE Spz. CCVT | **Time 03 hrs.**
Course Code: CSVT 3009 | **Max. Marks: 100**

SECTION A

S. No.		Marks	CO
Q 1	Define Docker.	5	CO1
Q 2	State the difference between Virtualization and Containerization.	5	CO1
Q 3	State the advantages of using Docker.	5	CO1
Q 4	List any 3 Development Burdens which Docker can help overcome.	5	CO2
Q 5	With reference to Docker, explain the contents of a Dockerfile.	5	CO2
Q 6	With reference to Docker; define Docker Compose.	5	CO2

SECTION B

Q 7	Describe in detail all the characteristics of Kubernetes.	10	CO3
Q 8	With reference to Kubernetes; illustrate Minikube.	10	CO3
Q 9	Illustrate the Docker Architecture along with a suitable diagram.	10	CO2
Q 10	Describe Google Kubernetes Engine along with its features.	10	CO4
Q 11	Discuss in detail Kubernetes Architectural Components. **OR** Discuss Kubernetes as a Service (KaaS).	10	CO3

SECTION-C

Q 11	With reference to CI/CD and DevOps answer the following:
	   (a) Define Continuous Integration
	   (b) Define Continuous Delivery
	   (c) Explain Continuous Monitoring
	   (d) Illustrate Continuous Development
	
	OR
	
	Discuss in detail the combination of Docker, CI/CD & DevOps along with its benefits.
		[5+5+5+5]
		
		[20]
			CO4