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**Presidency University**

**Bengaluru**

**SCHOOL OF ENGINEERING**

**MAKE-UP EXAMINATION – SEP 2023**

**Course Code**: CSE 233

**Course Name**: Cloud Computing and Services

**Program & Sem**: B.Tech

**Date**: 04.10.2023

**Time**: 1.00PM to 4.00PM

**Max Marks**: 100

**Weightage**: 50%

**Instructions:**

1. *Read the all questions carefully and answer accordingly.*

**Part A [Memory Recall Questions]**

**Answer all the Questions. (8Qx 5M= 40M)**

1. What are the types of services available in cloud computing? Explain them in details.

(C.O. No.1) [Knowledge level]

1. What is the role of Docker in DevOps operation? (C.O.No.1) [Knowledge level]
2. Discuss the different deployment models of cloud computing with its benefits?

(C.O.No.1) [Knowledge level]

1. Explain the core technologies that influence the cloud computing.

(C.O.No.1) [Knowledge level]

1. What is the function of Hypervisor in cloud solution? Explain.

(C.O.No.2) [Comprehension level]

1. Explain the hardware level virtualization with reference to XEN Hypervisor. (C.O.No.2) [ Comprehension level]
2. Briefly summarize the challenges still open in cloud computing?

(C.O.No.2) [Comprehension level]

1. List out the advantages of Virtualization technique in cloud?

(C.O.No.2) [Comprehension level]

**Part B [Thought Provoking Questions]**

**Answer all the Questions. (4Qx7M=28M)**

1. Cloud vendors are organization that set up public clouds and private clouds or offers on-request cloud computing services. Cloud security is the shared responsibility of vendors and customers. Mention the security issues specified by Gartner for Cloud Computing vendor. (C.O.No.3) [Comprehension level]
2. When internal IT deploys a new application, they work closely with end users to make sure everything is working. They track application success by emails and phone calls, and if there is a problem they get on the phone with the vendor to solve it. However, it doesn’t work like that with a business customer and their cloud provider. What customers will do

to make good-faith negotiated agreements with providers? State the answer. (C.O.No.3) [Comprehension level]

1. A Web services are self-contained, modular and distributed applications that can be described and published over the network. They enables communication among various applications by using open standards. Write a short notes on REST and SOAP open standard protocols for Web services. (C.O.No.3) [Comprehension level]
2. HTTP is the foundation for data communication for the World Wide Web. Explain the popular methods of HTTP that defines the operation that client wants to perform.

(C.O.No.3) [Comprehension level]

**Part C [Problem Solving Questions]**

**Answer all the Questions. (4Qx8M=32M)**

1. Modern applications are built with a combination of new architecture patterns, operational models, and software delivery processes. They scale up and down from zero to millions of users, manage terabytes (if not petabytes) of data, are available globally, and respond in milliseconds. Modernization is not just about applications; it requires a modern infrastructure that provides flexible operations framework. How do you simplify your business operations and overall engineering practices by considering the popular IaaS service provider? Justify (C.O.No.4) [Application level]
2. Cloud computing is a model of on-demand rent of computer system resources from a professional service provider. The service provider owns an amount of computer system resources enough to cause scale effects. Each customer uses resources of a required volume, usually much lower than required for economies of scale. There is a great number of cloud service providers (CSP) globally and choosing the right cloud service provider could be really challenging. Guide Mr John to compare and choose a suitable cloud service provider for his startup company. (C.O.No.4) [Application level]
3. Developers can build and deploy apps quickly using popular languages or bring their own language runtimes and frameworks, they can also manage resources from the command line, debug source code, and run API back ends easily. Which cloud platform removes many of the system administration and development challenges of building applications to scale to hundreds of requests per second and beyond? Explain.

(C.O.No.4) [Application level]

1. A .Net based framework provides a runtime environment and a rich set of APIs to allow developers to build the business logic of applications by using preferred programming abstractions which leverage their computation on either public or private clouds and desktops. Draw an architecture of the framework & explain in details. (C.O.No.4) [Application level]