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## S. D. M. COLLEGE OF ENGINEERING & TECHNOLOGY

### Department of Computer Science and Engineering Continuous Assessment Test – 2

Class	: Sem VIII	Date: 12-4-2014
Course Title	: Cloud Computing (elective)	Duration: 1 Hr.
Course Code	: CS475	Max. Marks : 20
Course Instructor	: Mayur Patil	

**Note:**

- **Q3 is compulsory. Answer anyone from Q1 and Q2.**
- **All questions are w.r.t lab-work on cloud application development.**

#### MAMS

**Q1. (CO 2,3)**

**a) What is Google App Engine ? 3M**

ANS: Google App Engine is a Platform as a Service (PaaS) offering that lets you build and run applications on Google's infrastructure. App Engine applications are easy to build, easy to maintain, and easy to scale as your traffic and data storage needs change. With App Engine, there are no servers for you to maintain. You simply upload your application and it's ready to go.  
[Details](#)

**b) List the programming languages supported by Google App Engine. 1M**

ANS:

- **Java:** Using App Engine's Java runtime environment, you can build your application using standard Java technologies.
- **Python:** App Engine features a fast Python interpreter and standard Python libraries.
- **PHP:** App Engine uses Google's Cloud Platform services under the hood when you call standard PHP functions.
- **Go:** App Engine features a Go runtime environment that runs natively compiled Go code.  
[Details](#)

c) List any 6 APIs offered by Google App Engine. 3M

ANS: [Google API Explorer](#) (list)

1. [Google Translate API](#)
2. [Prediction API](#)
3. BigQuery API
4. Books API
5. Cloud Storage API
6. Calendar API
7. Drive API etc etc

d) What is Hadoop, why do we use it ? 2M

ANS: **Apache Hadoop** is an [open-source software framework](#) for storage and large-scale processing of data-sets on clusters of [commodity hardware](#). Hadoop is an [Apache top-level project](#) being built and used by a global community of contributors and users.<sup>[2]</sup> It is licensed under the [Apache License 2.0](#). [Details](#)

e) Write a note on HDFS. 1M

ANS:

Hadoop Distributed File System (HDFS) – a distributed file-system that stores data on commodity machines, providing very high aggregate bandwidth across the cluster.

[Details](#)

**Q2.** (co 1) [DETAILED ANSWER](#)

a) List any 4 PaaS which you might have used to deploy your cloud application. 2 M

ANS: PaaS (Platform as a service), as the name suggests, provides you computing platforms which typically includes operating system, programming language execution environment, database, web server etc.

Examples : **AWS Elastic Beanstalk, Heroku, Force.com, Google App Engine.**

b) List any 4 cloud based IDE for SaaS development. 2 M

ANS: [Details Chart Comparison](#)

1. [Cloud9 IDE | Your code anywhere, anytime](#)
2. [Codenvy - https://codenvy.com/](#)
3. <https://codio.com/>
4. <https://codeanywhere.net>
5. <http://www.akshell.com>
6. <https://shiftedit.net>
7. <http://pythonfiddle.com>

c) List any 6 SaaS which you might used. 3M

ANS: While in SaaS(Software as a service) model you are provided with access to application softwares often referred to as on-demand softwares. You don't have to worry about the installation, setup and running of the application. Service provider will do that for you. You just have to pay and use it through some client.

Examples : **Google Apps, Microsoft Office 365, PDF to DOC etc etc**

d) List any 2 IaaS which you might have used. 1M

ANS: IaaS(Infrastructure as a service), as the name suggests, provides you the computing infrastructure, physical or (quite often) virtual machines and other resources like virtual-machine disk image library, block and file-based storage, firewalls, load balancers, IP addresses, virtual local area networks etc. Examples : Amazon EC2, Windows Azure, Rackspace, Google Compute Engine.

e) List any 4 cloud storage services you might have used. 2M

ANS:

1. **Google Cloud Storage — Google Developers**
2. **Dropbox** - <https://www.dropbox.com/>
3. [www.rackspace.com](http://www.rackspace.com)
4. <https://onedrive.live.com>
5. <https://www.box.com>

**Q3.** W.R.T cloud application (SaaS) created by you, answer the following questions: (co 3,4)

- a) Which IDE did you use ?. Mention version. Ex: Eclipse Helios 3.6. 1M
- b) Which version of Java/JDK did you use ? 1M
- c) List the additional plugins integrated with Eclipse. 2M
- d) Mention the app-engine version used by you. 1M
- e) List the main java-classes used by you. Ex: StringBuilder 2M
- f) List the basic functionalities offered in your application. 3M