



**NAVRACHANA  
UNIVERSITY**  
a UGC recognized University

**School:** School of Engineering and Technology  
**Program/s:** Mtech –Computer Science and Engineering  
**Year:** 2<sup>nd</sup> **Semester:** 3<sup>rd</sup>  
**Examination:** End Semester Examination  
**Examination year:** December - 2021

**Course Code:** CS247 **Course Name:** Cloud Computing Concepts  
**Date:** 01/12/2021  
**Time:** 08:30 am to 10:30 am

**Total Marks:** 40  
**Total Pages:** 03

**Instructions:**

- Write each answer on a new page.
- Use of a calculator is permitted/not permitted.
- \* COs=Course Outcome mapping. # BTL=Bloom's Taxonomy Level mapping

Q. No.	Details	Marks	COs*	BTL#
Q.1	<b>Attempt the Following Questions:</b>	10		
1.	Cloud Service Provider typically web based management consoles that provides users insight on the state of cloud services .What is one technology used in the client side browser code that queries backend system for data from the cloud services. a) XHTML b) AJAX c) PHP d) HTML		CO1	1,2,3,6
2.	In Grid Computing model, server or personal computers run a) Dependently b) InDependently c) Concurrently d) Horizonntally		CO1	1,2,3,6
3.	An architecture that moves the client query to a middle tier so that stateless clients can be used to call a) Peer-Peer Architecture b) Master-Slave Architecture c) Client - Server Architecture d) Three-Tier Architecture		CO1	1,2,3,6
4.	Which element in SOA centrally registers services metadata for discoverability purpose a) service composition b) service registry c) service inventory d) service model		CO1	1,2,3,6
5.	Which is usually considered the first step in globus installation		CO1	1,2,3

- a) setup GPT environment variable
  - b) setup globus environment variable
  - c) create a user name globus
  - d) create two directories
6. Above the file systems comes the \_\_\_\_\_ engine, which consists of one Job Tracker, to which client applications submit MapReduce jobs.2.0 CO4 1,2,3
- a) MapReduce
  - b) Google
  - c) Functional programming
  - d) Facebook
7. What was Hadoop written in? CO4 1,2,3
- a) Java (software platform)
  - b) Perl
  - c) Java (programming language)
  - d) Lua (programming language)
8. Which of the following platforms does Hadoop run on? CO4 1,2,3,
- a) Bare metal
  - b) Debian
  - c) Cross-platform
  - d) Unix-like
9. \_\_\_\_\_ is a utility which allows users to create and run jobs with any executables as the mapper and/or the reducer CO4 1,2,3,
- a) Hadoop Strdata
  - b) Hadoop Streaming
  - c) Hadoop Stream
  - d) None of the mentioned
10. The number of maps is usually driven by the total size of \_\_\_\_\_ CO4 1,2,3
- a) Inputs
  - b) Outputs
  - c) Tasks
  - d) None of the mentioned

**Q.2 Attempt the following questions**

**5**

1. \_\_\_\_\_ the following is a key mechanism for protecting data CO5 1,2,3
2. Like DES, AES also uses Feistel Structure CO5 1,2,3
- a) True
  - b) False
3. AES uses a \_\_\_\_\_ bit block size and a key size of \_\_\_\_\_ bits. CO5 1,2,3
4. The word Grid in Grid Computing comes from an analogy to the \_\_\_ Power Grid. CO1 1,2,3,6
5. SLA stands for \_\_\_\_\_. CO5 1,2,3

**Q.3 Attempt (Any 5) from the following questions.**

**25**

1. Explain Grid Computing with it's several benefits . CO1 1,2,3,6
2. Explain Intragrid and intergrid with suitable diagram CO1 1,2,3,6
3. Explain is OGSA and its environment CO1 1,2,3,6

- |    |  |     |         |
|----|--|-----|---------|
| 4. | Explain GridFTP                        | CO1 | 1,2,3,6 |
| 5. | Explain Hadoop with its Architecture . | CO4 | 1,2,3   |
| 6. | Explain MapReduce .                    | CO4 | 1,2,3   |
| 7. | Define :                               | CO4 | 1,2,3   |
|    | a) PayLoad                             |     |         |
|    | b) Mapper                              |     |         |
|    | c) NamedNode                           |     |         |
|    | d) DataNode                            |     |         |
|    | e) MasterNode                          |     |         |

\*\*\*\*\*End of Question Paper\*\*\*\*\*