PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

MCA DEGREE EXAMINATION MAY 2023
(Second Semester)

Branch – COMPUTER APPLICATION

MAJOR ELECTIVE COURSE – I:
CLOUD ARCHITECTURE AND SERVICES

Time: Three Hours　　　　　　　　　　　　　Maximum: 50 Marks

SECTION-A (5 Marks)
Answer ALL questions
ALL questions carry EQUAL marks　　　　(5 x 1 = 5)

1　Virtualized servers are examples of _____.
　(i)　Software as a Service　　(ii)　Platform as a Service
　(iii)　Infrastructure as a Service　(iv)　Identity as a Service

2　_____ combines hardware appliances and specific software for the creation and management of a virtual network.
　(i)　Storage virtualization　　(ii)　Network virtualization
　(iii)　Desktop virtualization　　(iv)　Application server virtualization

3　In IaaS, _____ component is responsible for keeping track of all the live instances.
　(i)　the VM repository　　　(ii)　a VM pool manager
　(iii)　the reservation　　　　(iv)　the pricing and billing

4　Heroku is an example of _____.
　(i)　IaaS　　　　　　　　(ii)　PaaS
　(iii)　SaaS　　　　　　　(iv)　CaaS

5　In Cloud federation reference stack, Service Level Agreements fall under _____.
　(i)　Conceptual level　　　　(ii)　Logical level
　(iii)　Logical and operational level　(iv)　Infrastructural level

SECTION - B (15 Marks)
Answer ALL Questions
ALL Questions Carry EQUAL Marks　　　　(5 x 3 = 15)

6　a　Explain cloud computing reference model.
　　　　　　　　OR
　b　Discuss about infrastructure and system development.

7　a　State the various hardware virtualization techniques.
　　　　　　　　OR
　b　List the disadvantages of virtualization.

8　a　Identify the open challenges of cloud computing.
　　　　　　　　OR
　b　State the different pricing strategies adopted by cloud providers.

9   a   Explain the Compute services of Microsoft Windows Azure.

OR

b   Discuss about Amazon EC2 Instances.

10 a   Identify the services of InterCloud architectural framework.

OR

b   Analyze about MetaCDN architecture.

SECTION -C (30 Marks)
Answer ALL questions
ALL questions carry EQUAL Marks   (5 x 6 = 30)

11 a   Assess the core technologies for cloud computing realization.

OR

b   Analyze the different computing platforms and technologies for cloud computing application.

12 a   Discuss about hypervisors in cloud environment.

OR

b   Interpret the characteristics of virtualized environments.

13 a   Elucidate the Platform-as-a-Service reference model with neat sketch.

OR

b   Analyze the different types of clouds.

14 a   Illustrate the various storage services of Amazon Web Services.

OR

b   Discuss the architecture and core concepts of Google AppEngine.

15 a   Interpret the architecture for energy-efficient resource allocation in a green cloud computing infrastructure.

OR

b   Analyze the different levels of Cloud federation stack.

Z-Z-Z   END