

**Enrollment No.....**

Faculty of Science  
End Sem Examination May-2024  
BC3CO58 Cloud Migration

Programme: B.Sc.

Branch/Specialisation: Computer  
Science / All**Duration: 3 Hrs.****Maximum Marks: 60**

Note: All questions are compulsory. Internal choices, if any, are indicated. Answers of Q.1 (MCQs) should be written in full instead of only a, b, c or d. Assume suitable data if necessary. Notations and symbols have their usual meaning.

- Q.1 i. Which is NOT a common cloud migration strategy? **1**  
 (a) Re-hosting (b) Re-platforming  
 (c) Re-factoring (d) Re-directing
- ii. The Cloud Transformation Maturity Model ends with which stage? **1**  
 (a) Project (b) Foundation  
 (c) Migration (d) Optimization
- iii. Time management in cloud migration primarily helps with: **1**  
 (a) Cost reduction (b) Risk assessment  
 (c) Project scheduling (d) Vendor negotiation
- iv. Security in cloud migration fundamentally aims to: **1**  
 (a) Increase complexity  
 (b) Enhance data visibility  
 (c) Protect data and applications  
 (d) Simplify user access
- v. Which AWS service is NOT directly related to migrating services to the cloud? **1**  
 (a) AWS Migration Hub (b) Amazon S3  
 (c) AWS Lambda (d) Amazon Route 53
- vi. The Cloud Adoption Framework primarily benefits organizations by: **1**  
 (a) Reducing IT staff  
 (b) Providing a structured migration approach  
 (c) Decreasing cloud costs  
 (d) Simplifying application development

[2]

- vii. A key risk in large-scale cloud migrations is: **1**  
 (a) Data loss (b) Increased efficiency  
 (c) Lower operational costs (d) Enhanced security
- viii. During pre-release for a large-scale migration, it is crucial to: **1**  
 (a) Decrease monitoring  
 (b) Limit access to resources  
 (c) Conduct load testing  
 (d) Reduce documentation
- ix. Migrating web applications to AWS Cloud usually involves: **1**  
 (a) Decreased scalability options  
 (b) Using Amazon EC2 instances  
 (c) Eliminating the need for load balancing  
 (d) Increased on-premises dependency
- x. A critical consideration when migrating backend processing pipelines to the cloud is: **1**  
 (a) Reducing the number of transactions  
 (b) Increasing on-premises data storage  
 (c) Ensuring data consistency and integrity  
 (d) Decreasing automation and orchestration
- Q.2 i. Explain how cloud migration strategies differ from traditional IT strategies. **4**  
 ii. Describe the impact of cloud transformation maturity on an organization's cloud migration journey. **6**
- OR iii. How do public cloud services benefit businesses looking to scale their operations? **6**
- Q.3 i. Outline the importance of vendor selection in a cloud migration plan. **3**  
 ii. Discuss the role of security in cloud migration, with examples of common challenges and solutions. **7**
- OR iii. Explain how a business can measure the effectiveness of its cloud migration. **7**
- Q.4 i. Detail the importance of understanding on-premises costs when planning to migrate services to AWS. **4**  
 ii. Compare different migration options available when moving services to AWS. **6**

[3]

- OR iii. Describe the key components of AWS's Cloud Adoption Framework and their importance in migration. **6**
- Q.5 Attempt any two:  
 i. Discuss the three-step process for migrating large-scale services to the cloud. **5**  
 ii. Identify risks involved in large-scale cloud migrations and suggest strategies for mitigation. **5**  
 iii. How does pre-release testing change when dealing with large-scale cloud migrations? **5**
- Q.6 Attempt any two:  
 i. Briefly explain why a company might choose to migrate its web applications to AWS cloud. Outline the key considerations for migrating batch processes to the cloud. **5**  
 ii. Discuss the steps involved in migrating from an end-of-life data centre to AWS, including how to ensure business continuity. **5**  
 iii. Reflect on a case study where migrating a backend processing pipeline to the cloud significantly improved operational efficiency. Describe the process and the outcomes. **5**

\*\*\*\*\*

## Marking Scheme

### BC3CO58 (T) Cloud Migration

|     |       |   |   |
|-----|-------|---|---|
| Q.1 | i)    | D   | 1 |
|     | ii)   | D   | 1 |
|     | iii)  | C   | 1 |
|     | iv)   | C   | 1 |
|     | v)    | D   | 1 |
|     | vi)   | B   | 1 |
|     | vii)  | A   | 1 |
|     | viii) | C   | 1 |
|     | ix)   | B   | 1 |
|     | x)    | C   | 1 |
| Q.2 | i.    | explanation that highlights key differences such as scalability, cost, flexibility, and speed of deployment.<br>Each difference 1 Mark  | 4 |
|     | ii.   | detailed discussion on maturity models or benefits of public cloud services, including at least two examples. 4 marks 2 examples- 2marks  | 6 |
| OR  | iii.  | public cloud services benefit businesses looking to scale their operations. 6 points each 1 Mark  | 6 |
| Q.3 | i.    | Key points should include risk reduction, expertise, and cost-effectiveness<br>each point 1 Mark  | 3 |
|     | ii.   | Requires discussion on security/compliance in migration or measurement of migration effectiveness. Include challenges (2.5 Marks) and solutions or metrics. (2.5 Marks) Role (2 Mark) | 7 |
| OR  | iii.  | outlining challenges or effectiveness metrics<br>each challenge 1 Mark  | 7 |
| Q.4 | i.    | cost analysis pre- and post-migration. each importance 1 Mark   | 4 |
|     | ii.   | Compare different migration options available when moving services to AWS. 6 points   | 6 |
| OR  | iii.  | the key components of AWS's Cloud Adoption Framework and their importance in migration. 6 points  | 6 |
| Q.5 | i.    | details on processes, risks, and testing strategies.  | 5 |
|     | ii.   | Identify risks involved in large-scale cloud migrations and suggest strategies for mitigation. - 5 points   | 5 |

OR    iii.    pre-release testing change when dealing with large-scale cloud migrations – 5 points    **5**

Q.6

i.    explain why a company might choose to migrate its web applications to AWS cloud- 2.5 marks    **5**  
       Outline the key considerations for migrating batch processes to the cloud. - 2.5 marks

ii.    the steps involved in migrating from an end-of-life data centre to AWS, including how to ensure business continuity.    5 Marks    **5**

iii.    Process and outcomes on cloud migration    5 Marks    **5**

\*\*\*\*\*