



# MADURAI KAMARAJ UNIVERSITY

(University with Potential for Excellence)

Re-accredited by NAAC with 'A' Grade in the 3<sup>rd</sup> Cycle



**Prof. Dr. V. Chinniah**, M.Com., M.B.A., M.Phil., B.L., Ph.D.,  
**Registrar**

**Palkalai Nagar, Madurai – 625 021,**  
**Tamil Nadu, India.**

Ref.: B-1/BoS/B.Sc., & M.Sc. Computer Science)/2018

16.07.2018

To

The Principals of affiliated non-autonomous Colleges,  
Offering B.Sc. Computer Science & M.Sc. Computer Science courses.

Sir / Madam,

Sub.: Details of Internal Assessment Split up for B.Sc. Computer Science &  
M.Sc. Computer Science – Intimated – reg.

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I am to inform you that as suggested by the Chairperson of the Board of Studies in Computer Science (UG/PG), the details of Internal Assessment Split up for B.Sc. Computer Science & M.Sc. Computer Science is furnished below, since it is not available in the existing revised syllabus. However, this will be informed through Errata in near future.

The split up details of Internal mark calculation

Assignment	=	10 Marks
Seminar (Group Discussion)	=	5 Marks
Peer-team Teaching	=	5 Marks
Total	=	25 Marks

I am further to inform you that the modified syllabus for the Elective Paper (Client / Server Computing) in the V Semester is sent herewith for your reference

Therefore, it is requested to bring this to the notice of the respective teaching staff and students of your college.

Yours faithfully,

REGISTRAR

Copy to

1. The Controller of Examinations
2. The Deputy Registrar, UG Semester &
3. The Supdt. Confidential Section
4. The Supdt. B.Sc, Semester Section
5. The Supdt, PG. Semester

2/2  
MS  
16/7/18  
16/7/18  
16/7/18

*Suggested to the B.sc Computer Science Curriculum as an Elective Paper in the V<sup>th</sup> semester for the 2016-17 & 2018-19 regulations.*

**Client/ Server Computing**  
(Elective Subject – 5 Hours – 4 Credits)

**UNIT I:**

**Introduction:** What is Client/Server Computing? - A Server for Every Client - Client/Server: Fat or Thin- Client/Server: Stateless or Stateful - Servers and Mainframes - Client/Server Functions - Client/Server Topologies -Integration with Distributed Computing - Alternatives to Client/Server Systems. **Classification of client/server systems:** Two-tier Client/Server Model - Three-tier Client/Server Model - Transaction Processing Monitors - Three-tier with Message Server - Three-tier with an Application Server- Three-tier with an ORB Architecture - Three-tier Architecture and Internet - N-tier Client/Server Model - Clients/Server - Advantages and Disadvantages.

**UNIT II:**

**Driving forces behind client/server computing :** Introduction- Driving Forces - Business Perspective - Technology Perspective - Development of Client/Server Systems - Development Tools - Development Phases - Client/Server Standards - Client/Server Security - Single System Image - Downsizing and Rightsizing - Client/Server Methodology. **Architectures of client/server systems :** Introduction - Components -Interaction between the Components -Complex Client/Server Interactions - Principles behind Client/Server Systems-Client Components - Server Components - The Complexity of Servers - Communications Middleware Components.

**UNIT III:**

**Client/server and databases :** Introduction -Client/Server in Respect of Databases - Client/Server Databases-Client/Server Database Computing -Client/Server Database Architecture -Database Middleware Component -Access to Multiple Databases - Distributed Client/Server Database Systems - Distributed DBMS- Web database System for Client/Server Applications -Web database Vs Traditional Database.

**UNIT IV:**

**Client/server application components :** Introduction - Technologies for Client/Server Application - Service of a Client/Server Application -Categories of Client/Server Applications- Client Services - Inter Process Communication - Remote Services -Window Services -Dynamic Data Exchange (DDE) - Object Linking and Embedding (OLE) -Common Object Request Broker Architecture (CORBA) - Print/Fax Services -Database Services -Server Services .

**UNIT V:**

**System development:** Hardware Requirements - PC Level Processing Units - Storage Devices - Network Protection Devices - Surge Protectors - RAID Technology - Server Specific Jargon - Software Requirements - Client OS - Server OS - Network OS. **Client/server technology and web services:** Introduction - What are Web Services? -Web Services History -Web Server Technology-Web Server- Web Server Communication - Role of Java for Client/Server on Web.

[P To]

**Text Book:**

Subhash Chandra Yadav, Sanjay Kumar Singh, "*An Introduction to Client / Server Computing*", New Age International Publishers, First edition- 2009, New Delhi.

UNIT I : Chapters 1.1, 1.2, 1.3

UNIT II : Chapters 2.1, 2.2, 2.3, 2.4, 2.5, 2.8, 2.9, 2.10, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6

UNIT III : Chapters 4.1, 4.2, 4.3, 4.4, 4.5, 4.6, 4.7, 4.8

UNIT IV : Chapters 5.1, 5.2, 5.3, 5.4, 5.5, 5.6

UNIT V : Chapters 6.1, 6.2, 8.1, 8.2, 8.3

**Reference Books:**

1. Dawna Travis Dewire, "Client / Server Computing", McGraw-Hill International Editions, 1994.
2. Patrick Smith, Steve Guengerich, "Client / Server Computing", Second Edition, 2002, Printice-Hall of India Private Limited, New Delhi.
2. Robert Orfali, Dan Harkey and Jeri Edwards, *The Essential Client Server Survival Guide*, 2nd edn., Galgotia.



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**Prof. Dr. V. Chinniah**, M.Com., M.B.A., M.Phil., B.L., Ph.D.,  
**Registrar**

**Palkalai Nagar, Madurai – 625 021,**  
**Tamil Nadu, India.**

Ref.: B-1/BoS/B.Sc., & M.Sc. Computer Science)/2018

20.07.2018

To

The Principals of affiliated non-autonomous Colleges,  
Offering B.Sc. Computer Science & M.Sc. Computer Science courses.

Sir / Madam,

Sub.: Details of Internal Assessment Split up for B.Sc. Computer Science &  
M.Sc. Computer Science – Intimated – reg.

Ref.: B-1/BoS/B.Sc., & M.Sc. Computer Science)/2018 dt.16.7.2018

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In continuation of earlier letter dated 16.7.2018 cited under reference, I am to inform you that the details of Internal Assessment Split up for B.Sc. Computer Science & M.Sc. Computer Science is furnished below as suggested by the Chairperson of the Board of Studies in Computer Science (UG/PG).

### Scheme for Internal Assessment for theory papers

#### The split up details of Internal mark calculation

Test	=	10 Marks	(There shall be two tests of 10 Marks each – Average of 10 marks)
Assignment	=	5 Marks	
Seminar (Group Discussion)	=	5 Marks	
Peer-team Teaching	=	5 Marks	
Total	=	25 Marks	

However, this will also be informed through Errata in near future.

Therefore, it is requested to bring this to the notice of the respective teaching staff and students of your college. This may be followed from the Academic Year 2018-2019 onwards.

Yours faithfully,

**REGISTRAR**

MS  
20/7/18  
20/7/18

**Note.:**

Please follow the syllabus for the elective paper (Client / Server Computing in the V Semester as per the letter cited under reference.

**Copy to**

1. The Controller of Examinations
2. The Deputy Registrar, UG Semester &
3. The Supdt. Confidential Section
4. The Supdt. B.Sc, Semester Section
5. The Supdt, PG. Semester



# MADURAI KAMARAJ UNIVERSITY

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**Prof. V.S. Vasantha**, M.Sc., Ph.D.,  
Registrar (i/c)

Palkalai Nagar, Madurai – 625 021,  
Tamil Nadu, India.

Ref.: B1/BoS/UG/Computer Science/Syllabus/2020

Date: 16-12-2020

## ERRATA

To

All the Principals of Non-Autonomous Colleges  
affiliated to Madurai Kamaraj University  
(offering B.Sc. Computer Science  
under CBCS semester pattern)

Sir/Madam,

Sub: Clarification on the title of the Elective Paper in the V Semester of  
B.Sc. Computer Science syllabus - Appendix- L of the Academic  
Council and the Senate on 26-03-2018 and 28-03-2018 respectively  
– intimated - reg.

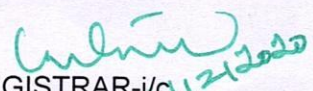
Ref: Letter received from Dr. M. Thangaraj, Chairman, Board of Studies in  
Computer Science dated 15-12-2020

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With reference to the letter cited, I am to inform you that the  
Elective Subject – ES2 is wrongly printed as Android Programming in the scheme of the  
syllabus for B.Sc. Computer Science be read as Mobile Applications Development.

I request that this may be informed to the concerned staff and the students of  
your College, accordingly.

Yours faithfully,

  
REGISTRAR-i/c

Encl.: As above

Copy to:

The VC's Office  
The Registrar's Section  
The Dean, College Development Council  
The Controller of Examinations  
The Sr. Deputy Registrar / Deputy Registrar / Assistant Registrar - Strong Room  
The Sr. Deputy Registrar / Deputy Registrar / Assistant Registrar - Confidential Section  
The Sr. Deputy Registrar / Deputy Registrar / Assistant Registrar - UG Courses  
The Sr. Superintendent / Superintendent - Confidential Section