### **Common Paper for UG and PG Integrated Programmes**

### COMPUTERS FOR DIGITAL ERA

Syllabus (For all U.G Courses	& Integrated P.G.
Programmes ) w.e.f 2017-18	(MANDATORY COURSE)

(For the IV Semester UG/ Integrated PG Students of Departments and Affiliated Colleges of Manonmaniam Sundaranar University with effect from the Academic Year 2017-18.)

### **Objectives:**

- 1. To create the awareness about the digital India among the student community.
- 2. To make the student to understand the role of computer in the day to day living.
- 3. To create the awareness about the e-learning and security issues.

### Unit I FUNDAMENTALS OF COMPUTERS 5 Hrs (3L + 2P)

The role of computers in the modern society – Types of Computers and their specifications – Server – Desk Top Computers - Lap Top – Tablet – Smart Phones - Block diagram of Digital Computer – Working Principle of Computer, I/O Devices – Central Processing Unit – Types of Memory - Display – Port – UPS – Setting up and Maintenance of Computer.

# Unit II TYPES OF SOFTWARE AND OFFICE AUTOMATION 6 Hrs (3L + 3P)

Types of Software with examples – System Software – Application Software – Utility Software - Operating System – Basics on Windows – Introduction to Android –Application Software - Free Open source software – Database and its applications – Office Automation Software – applications of Microsoft Word – Microsoft Power Point – Microsoft Excel.

# Unit III INTERNET AND MOBILE APPLICATIONS 7 Hrs (4L + 3P)

Introduction to computer networks – LAN – WAN – MAN – Wired and wireless network – Wi Fi Networks - Network Devices – Modem – Switch – Router – Broad Band – Leased Lines-Internet – WWW – URL- Browser – e-mail – SMS – MMS - Client Server Computing - Cloud – Public and Private cloud – Mobile Applications.

# Unit IVE - GOVERNANCE IN INDIA7 Hrs (4L + 2P)

E-Governance initiative by the Government – Digital India Platform – Agencies enabling Digital India - Electronic Payment and Receipt – Digital Locker – e-district service – electronic signature service – Digital AIIMS – India BPO Scheme – Integrated Nutrient Managment – GIS – Mobile Seva App Store- GARV- Grameen Vidyutikaran

# Unit V E – LEARNING AND MOOC 5 Hrs (L)

E – Learning – Digital Library – E- Journals – Introduction to MOOC – Edex – Course era etc -SWAYAM – NPTEL – Cyber Security – Virus – Malware – Network Security - Hacking – Big Data – Data Analytics – Social Networks – Social Media Analytics- Introduction to IT Act.

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## \* 10 Hours Practical Sessions are to be allotted for Computer & Mobile Applications Suggested List of Exercises:

- 1. Setting up of computers Connecting I/O device, UPS, CPU, Printers, Mouse, Key Boards, Pen Drives, etc. (Mandatory)
- 2. Minor fault findings.
- 3. Preparing a word Document and saving, copying files, deleting files, renaming files, etc. (Mandatory)
- 4. Preparing slides Animation Slide Transition Back Ground Changing Word Art, etc. (Mandatory)
- 5. Preparing Mark Sheet with Excel Calculating First Class, second class, etc. (Mandatory)
- 6. Browsing Searching for documents e-mail id creation Useful mobile apps downloading. (Mandatory)
- 7. Data/Wi-Fi Connectivity and Exchanging of Data.
- 8. Electronic Payment Online Application Processing
- 9. Browsing for NPTEL/ SWAYAM Courses
- 10. Browsing the useful e-learning sites

### Learning Outcomes:

At the end of the course the students will be able to:

- 1. apply the computing technology in their day to day life
- 2. create awareness regarding digital India initiatives to their surroundings
- 3. identify the areas where he can extend the digital computing for their benefits.

### Text Book:

1. E- Materials of Manonmaniam Sundaranar University on "Computer for Digital Era", <u>http://msuniv.ac.in</u>

### References:

1. Andrew S. Tanenbaum, Computer Networks, 4<sup>th</sup> Edition, Eastern Economy Edition, PHI Private Ltd, New Delhi, 2003.

2. Gautam Shroff, Enterprise Cloud Computing, Technology, Architecture, Applications, Cambridge University Press, First Edition, 2010.

3. Reza B'Far, Mobile Computing Principles, Cambridge University Press, First Edition, 2005.

4. Charles P Pfleeger, Shari Lawrence Pfleeger, Security in Computing, I Edition, Pearson Education, 2003.

5. https://swayam.gov.in

6. <u>http://www.digitalindia.gov.in/content/social-media-analytics</u>

Scheme of Examination		
Internal – 25 Marks	External – 75 Marks	
Internal Break Up - 15 for Continuous Assessment Test (CAT) + 5 for Assignment + 5 for Seminar. 3 CATs (Two tests on Theory and one on Practical )are to be conducted		