

INDIRA TECHNICAL INSTITUTE EDUCATION SOCIETY NASHIK

CERTIFICATE COURSE MOBILE SERVICING [MS]

**EXAM SCHEME: THEORY PAPER 100 MARKS – 3 HRS.
PRACTICAL 100 MARKS – 2 HRS.**

THEORY SYLLABUS

1) INTRODUCTION TO BASIC ELECTRONICS.

- a) Types of Materials viz. Insulator, Conductor, Semiconductor etc.
- b) Concept of AC & DC voltage & current, Power, Ohms Law & Mobile Battery & Charger.
- c) Resistor, Capacitor, Transformer,
- d) Diode, Transistors, ICs (LSI, VLSI), LED & LCD Display etc.

2) INTRODUCTION TO DIGITAL ELECTRONICS.

- a) Binary system (Different number Systems, Decimal, Binary, Hexadecimal, Conversion of one No. system to another No. system.
- b) Logic gates (AND, NAND, OR, NOR & NOT)
- c) Types of Memory (ROM, PROM, EPROM, EEPROM, DRAM, SRAM, VRAM, Cache Memory, Primary, Secondary Memory etc.)

3) INTRODUCTION TO COMPUTER SYSTEM.

- a) Modulation, Demodulation, Modem working & types, Digital communication (transmissions & Receivers). Mobile TV signals.
- b) DOS, Windows operating systems (Hardware, Software, Desktop settings, Specializes software).
- c) Internet Browsing (E-mail, searching information on the internet, Downloading information, files, software & Drivers.

4) INTRODUCTION TO BASIC TELEPHONE SYSTEM.

- a) Working of Landline Telephone system & Mobile Telephone.
- b) Cells of network, Antennas, Grid or cells, Range of operation of Mobile phone, Network of Mobile connectivity
- c) Different Mobile Operators (Hutch, Airtel, BPL etc.)
- d) Sim card (Storage capacity, Lock/unlock Sim card.

5) OPERATION AND INTRODUCTION TO MOBILE HANDSET.

- a) Different Mobile Models: - 3310, 6110, 6600, Nokia, Tata Indicom & LG.
- b) Difference between WLL & GSM Technology.
- c) Introduction to CDMA Technology.
- d) Function of Different menus available in Mobile Hand set
- e) Receiving & sending SMS / MMS
- f) Internet cables, GPRS, WLL, Software for Internet.

6) COMMON FAULT IN MOBILE HAND SET.

- a) Disassembly of cell phone, Hand set circuit Analysis and Troubleshooting, common fault symptoms,
- b) Troubleshooting on hardware problems
- c) Phone is totally dead, Virus, Flash Programming doesn't work, Power doesn't stay on or phone is jammed,

Display information – Contact service, Audio failure, Charger Failure, Receiver Faults, Transmitter Faults.

7) INTRODUCTION TO FUTURE OF MOBILE PHONE.

Wap, GPRS, Blue Tooth, PDA, Palm Tops, Hands held PCS with Phone.

8) EQUIPMENTS.

Soldering Iron, Soldering Stations, Hot air gun, Wave solder, Digital Multi meter, Oscilloscope, Logic Probe, Memory Card reader, Different wires / Interfaces, Hands free kit & car charger

GUIDELINES FOR QUESTION PAPER SETTERS - MOBILE SERVICING (MS)

There will be total 6 Compulsory questions. Q 1 is objective question and asks on full syllabus.

	Marks
Q.No.1 A) Fill in the blanks.	(05)
B) Match the following.	(05)
C) Write short answer.(answers should not be more than 2 lines)	(10)
Q.No.2 A) Topic 1 & 2.	(16)
Q.No.3 A) Topic 3 & 4.	(16)
Q.No.4 A) Topic 5.	(16)
Q.No.5 A) Topic 8 & 9.	(16)
No Question ask to draw circuit diagram but faults can be ask on given circuit diagram	
.No.6 A) Topic 7.	(16)

PRACTICAL EXAMINATION FOR: - MOBILE SERVICING (MS)

Each candidate will have to perform three Faults. Two faults in Hardware section and performing one Experiment on Software section (Installation/up gradation of Mobile Handset). Each faults & Installation will give 8 Marks & 12 Marks each for writing procedure.

Journal / Term work	20 Marks.
(Journal should contain minimum 25 recommended experiments)	
Oral examination	20 Marks.

RECOMMENDED BOOKS FOR REFERENCE

Mobile Phone	Agashe.
Mobile Phone	Lotia.
Mobile Communication	C. Y. Lee.
Mobile Communication	Mzda.
Digital Principles and application	Malvino & Leach.

