



# **Electrical Engineering**

## **Information and communications technology (ICT)**

*Hand Notes For GATE, IES, PSUs & Competitive Exam*

### **Hand Notes**

**Page Length : 132**

**Note :** *We also providing GATE, IES, PSUs & Competitive Exam Materials [Handnotes, Shortnotes & Books], All Reports [Seminar Reports & PPT]*

**Goto :** **[www.martcost.com](http://www.martcost.com)**

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## Introduction To ICT and its Back Ground

ICT:- Information & Communication Technologies.

Weightage: (18-20m).  $\Rightarrow$  [Q's from Mobile Apps / Web / Online platforms / Sites]

Q's from These Topics.

- $\rightarrow$  UMANG
- $\rightarrow$  BHIM
- $\rightarrow$  NEFT
- $\rightarrow$  RTGS
- $\rightarrow$  IMPS
- $\rightarrow$  Cryptocurrency
- $\rightarrow$  AI (Artificial Intelligence).
- $\rightarrow$  Hardware / software names
- $\rightarrow$  CDMA:- Code Division Multiple Access.
- $\rightarrow$  Languages
- $\rightarrow$  IEEE
- $\rightarrow$  operating frequency Range.  
(2G, 3G, 4G).
- $\rightarrow$  PRAGATI.
- $\rightarrow$  E-governance.
- $\rightarrow$  E-Nam.
- $\rightarrow$  OSI Model.
- $\rightarrow$  3D-printing
- $\checkmark$  Digital India.
- $\rightarrow$  Digi locker.
- $\rightarrow$  FARE Tag
- $\rightarrow$  NPCI.

Mostly, Current-Affairs related ICT Q's will be asked in ESE Exam

This part covers both ICR and Current Affairs.

1) Mercury :- Nearest planet

2) Venus :- Hottest (or) Brightest (Due to Excessive GHGs).

3) Earth :- Life exists: That region called as: Goldilocks zone.

4) Mars :- Red Planet [पहलर रङ्ग रङ्ग था!!]

----- Asteroid belt (Stones moves area).

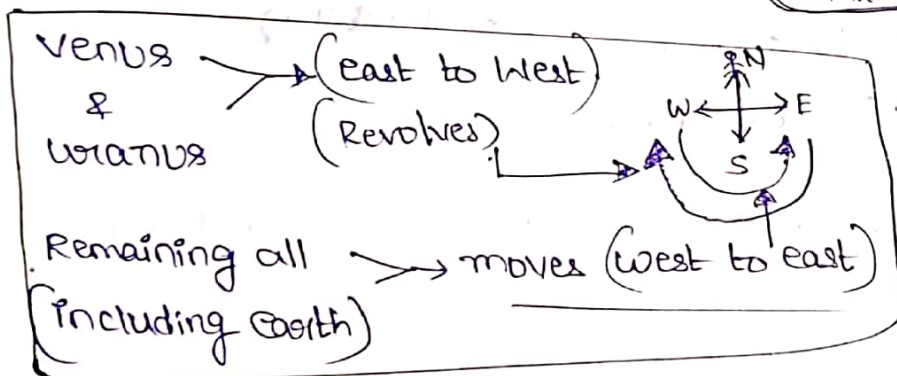
5) Jupiter :- Largest planet

6) Saturn :- Rocks/stones around saturn (gases + Asteroids): if why belt around.

7) Uranus :-

8) Neptune :- Earlier Pluto is considered as planet, <sup>now</sup> but it is not.

9) Pluto :- dwarf planet (Others like Ceres, Eris, Haumea, Makemake)  
Smallest dwarf planet



To become a planet  
 Some eligible Conditions  
 will be there like  
 distance, Orbital  
 revolution etc.  
Required Conditions  
Pluto is not  
Star, Dwarf, Planet  
Considered

→ (Lies near by earth in which scientists searching earth like objects).

→ Goldi Locks zone :-

→ Largest moon :- Titan. (of saturn)

→ Max<sup>m</sup> No. of moon :- (Saturn) - (82 No's)

Jupiter - (79).

↓  
Largest moon of Jupiter :- Ganymede.

→ Mercury & Uranus :- No Atmosphere.

⇒ NASA Missions | Space Craft :- Full form :- NASA

NASA: National Aeronautics and Space Administration.

Estd :- 1958. {Estd: Established}

HQ :- Washington D.C., United States.

→ MESSENGER :- Mercury

→ NEW HORIZONS :- Pluto

→ JUNO :- Jupiter. [JUNO :- World's 1<sup>st</sup> Fully Solar Power Space Craft].

→ MAVEN :- Mars Atmosphere & volatile evolution.

↳ :- space craft :- Curiosity rover.

→ CASSINI - HUYGENS :- SATURN.

(Estd: Established)



- ASIRIS - Rex :- To study about Asteroids.
- TESS :- NASA's Observatory. (Operational).  
(LAB).
- Kepler :- NASA's observatory to discover earth like objects.  
↳ (Decommissioned Now.)

NOTE :- Exoplanet :- Planet outside our solar system.

- ⇒ ISRO :- [Space Application Centre] SAC :- Ahmedabad.  
↳ Remote sensing :- (Hyderabad)  
Centre
- ⇒ ASTROSAT :- India's first Multiwavelength observatory.
- ⇒ India's Heaviest satellite :- GSAT-11.
- ⇒ India's " " Rocket :- GSLV MK III.
- ⇒ Chandrayaan - I :- ISRO's Lunar Mission.

Launched in :- 2008

By using :- PSLV - C 11.

PSLV :- Polar Satellite  
Launch vehicle

evidence found :- Ice evidence  
[Tawahar Point].

⇒ Chandrayaan-2 :-

Launched on :- 22<sup>nd</sup> July, 2019.

Reached on Moon :- 20<sup>th</sup> Aug, 2019. (Moon's South pole).

Aim :- Soft Landing.

Lander :- Vikram.

Rover :- Pragyaan.

Launched from :- Satish Dhawan  
Space Centre.  
[Shriharikota].



[Both Chandrayaan-1  
and Chandrayaan-2  
were launched  
from here.]

Launched by Using :- GSLV MK III.  
Rocket - (named) ↑

India became 4<sup>th</sup> Country after USA<sup>1</sup>, China<sup>2</sup>, Russia<sup>3</sup>,  
to launch Lunar Mission.

- ⇒ PSLV :- Polar satellite Launch vehicle. ← (destroys)  
⇒ GSLV :- Geosynchronous Satellite Launch vehicle. ← Can't Be Reused  
after placing of  
satellite in orbits.  
⇒ RLVTD :- [Reusable Launch Vehicle - Technology Demonstrator]  
↳ India became 4<sup>th</sup> Country to launch RLVs.

→ Aditya-I :- ISRO's Solar Mission. (2020).

→ Artificial moon }  
Artificial sun } China.

→ World's fastest Super Computer :- Summit [Developed by IBM, USA]

→ India's " " " :- Pratyush [Pune].

↓  
[Developed by CDAC]

↓  
"Centre for Development  
of Advance Computing."