How to prepare for IES/ESE with Electrical Engg., stream

Let us discuss with subject wise. Here we have many books for each subject. But by experience we are going to give one book for each subject/topic. Our intention is not to say other books are not recommended, but we are recommending these. We took old question papers analysis, and depending on that we give preference to each.

Paper-I

1. Electro Magnetic Theory

Book: Hayt upto Maxwell Equations, and Jordan & Ballman after Maxwells Equations. For problems one may depend on Hayt solutions or Sadiku.

For objective: We may expect around 15 questions from this area. Out of which questions from Transmission lines cover least 4 questions.

2004	2005	2006	2007	2008	2009
21	20	18	15	14	15

For Descriptive: For this they decreased importance from past years. We can expect around 30 to 40 marks from this area. So, we have to study this subject least important topics.

2004	2005	2006	2007	2008	2009
72	50	32	32	40	30

2. Electrical Materials

Books: Only one book is sufficient for this. Indulkar is enough in all the ways.

For Objective: By seeing below we can expect around 10 to 15 questions from this area.

2004	2005	2006	2007	2008	2009
14	20	20	16	14	15

For Descriptive: By seeing below table we can say that, we have to study this subject fully and solve complete example problems from Indulkar book.

2004	2005	2006	2007	2008	2009
68	70	72	72	74	60

3. Network Theory

Books: 3000 solved problems by Schaum's series for problems for Descriptive.

Hayt and Kemmerly upto second order transients

Chakrabarthi book for Theorems

V V Berg for Remaining topics.

For Objective: By seeing the following table we can expect around 20 to 25 questions from this subject.

2004	2005	2006	2007	2008	2009
25	20	19	18	23	25

For Descriptive: By seeing the following table we can say that, importance is increasing. So, we should not leave this subject.

2004	2005	2006	2007	2008	2009
22	50	72	72	72	60

4. Measurements

Books: AK Sawhney for Electrical Measurements and Kalsi for Electronic Instrumentation.

For Objective: By seeing the following table we can expect around 30 questions.

2004	2005	2006	2007	2008	2009
29	30	30	28	33	32

For Descriptive: This subject is very important as its carrying almost 50% of weightage in first paper. At any cost we should not leave even a single topic also from this area.

2004	2005	2006	2007	2008	2009
108	90	96	96	86	90

5. Control Systems

Books: Nagrath and Gopal for Theory and Nagoorkani for problems.

For Objective: We can expect around 40 questions from this area. We should not leave formulae based problems in this subject.

2004	2005	2006	2007	2008	2009
31	30	33	42	36	38

For Descriptive:Importance for this subject is being increased.

2004	2005	2006	2007	2008	2009
32	40	64	64	64	60

All over except EMF every other subject is important for Descriptive paper.

Paper-II:

1. Electrical Machines

Books: PS Bimbra for all the topics and example problems.

Nagrath & Kothari for 3phase transformers, 3 winding transformers, Basic concepts related to co-energy, field energy etc.,

BL Theraja- for 1-phase machines.

For Objective: For any Electrical Engineer for any competitive exam, this subject is a must to prepare.

2004	2005	2006	2007	2008	2009
32	30	31	29	30	31

For Descriptive: This subject is very important and at any cost we should not leave this subject. By observing below table we can say AC machines are more important than DC machines.

	2005	2006	2007	2008	2009
AC machines	78	58	40	41	52
DC machines	12	8	16	21	12

2. Power Systems: This is also very important subject and must read for any electrical engineer.

Books: CL Wadhwa –Load flows, z-bus formation, part of protection, Problems related to Generating Stations.

Nagrath& Kothari-Stability, Fault analysis, Economic load dispatch, Transients on Power Systems, L,C parameter calculations and finding performance of Tr., lines.

VK Mehta- Generation, Distribution.

BadriRam for Protection.

For Objective: We can expect around 20 questions from this area.

2004	2005	2006	2007	2008	2009
21	19	24	18	16	18

For Descriptive:Here by seeing the table u may conclude that, importance for protection part is reduced and need not be prepared which is NOT correct. We have to prepare each and every topic in Power Systems.

2004	2005	2006	2007	2008	2009
18	30	28	41	20	32
70	28	2	55	32	30
0	4	28	15	29	10

10	34	2	13	27	0

3. Analog and Digital Electronics

Books: Morris Mano for Digital Electronics Theory

RP Jain for problems in Digital Electronics.

Boyelsted for Analog Electronics.

Objective: We can expect around 30 questions from this.

2004	2005	2006	2007	2008	2009
25	22	30	30	26	28

Descriptive: For a typical Electrical Engineer, Analog may be a bit difficult (Frankly alien) subject. One can leave Analog after studying old question paper questions and important topics. But Digital Electronics should be studied.

	2004	2005	2006	2007	2008
Analog	24	46	46	14	12
Digital	4	42	36	30	30

4. Microprocessor

Books: Goankar is enough. Especially Instruction set is important here along with machine cycles and t-states for each instruction.

Objective: We can expect 15 to 20 questions this year.

2004	2005	2006	2007	2008	2009
13	14	10	17	18	15

Descriptive: This subject can be removed from the seriously preparing topics for Descriptive.

2004	2005	2006	2007	2008	2009
38	40	42	32	30	34

4. Communication Systems:

Books: Only one book George Kennedy is enough with all example problems.

Objective: We can expect around 15 questions from this area.

2004	2005	2006	2007	2008	2009
14	15	14	15	16	15

For Descriptive: In this area, especially analog Communication part is more important than digital. We may leave Digital Electronics for both Objective and Descriptive.

2004	2005	2006	2007	2008	2009
30	40	44	32	30	32

5. Power Electronics

Book: PS Bimbra for all topics in Power Electronics and For Drives GK Dubey.

Objective: We can expect around 15 questions from Power Electronics and Drives. Power Electronics part is more important than Drives for Objective.

2004	2005	2006	2007	2008	2009
15	14	11	12	14	15

Descriptive: Here we may leave AC drives part without loosing DC Drives. Plus power electronics part need to be studied.

2004	2005	2006	2007	2008	2009
59	70	44	40	46	36