

**Name of course:- XII ELECTRICAL TECHNOLOGY**

**Paper I Electrical wiring (FA)**

**BLUE PRINT**

Sr. No	Unit	Knowledge			Understanding			Application			Total Marks	Total Marks With Option
		Objects	Short Answer	Long Answer	Objects	Short Answer	Long Answer	Objects	Short Answer	Long Answer		
01	Industrial and commercial wiring	1(1)	3(1)		1(1)	3(1)		2(2)		6(1)	14	16
02	Planning Estimation and costing of Ele. wiring	1(1)	3(1)	4(1)	1(1)	3(2)		1(1)	4(1)	6(1)	14	24
03	Generation and transmission		3(1)		1(1)	3(2)	4(2)	1(2)		6(1)	14	24
04	HT and LT substation			4(1)	1(1)	3(2)		1(2)	4(1)		12	18
05	Illumination				1(2)		4(2)	1(1)	3(2)		12	18
06	Electrical services,inter active lecture	1(1)		4(1)	1(1)		4(1)	2(2)		6(1)	14	20
	No of Question	3	3	3	7	7	5	10	4	4	80	120
	Total Marks	3	9	12	7	21	20	14	14	24		
	Marks with options	24			48			52			80	120

Figures in bracket indicate number of questions and figures outside bracket indicate total marks for the question.

## Name of course:- XII ELECTRICAL TECHNOLOGY

### Paper II Electrical Appliances (FB)

#### BLUE PRINT

Sr. No	Unit	Knowledge			Understanding			Application			Total Marks	Total Marks With Option
		Objects	Short Answer	Long Answer	Objects	Short Answer	Long Answer	Objects	Short Answer	Long Answer		
01	Testing and Basic control equipment			4(1)						4(1)	10	14
02	Heat convector					3(2)		1(1)			04	06
03	Ele.Hand drill machine	1(1)							3(1)		04	06
04	Introduction to power tools	1(1)			1(1)				3(1)		03	05
05	Blender/mixer food processor					3(1)				6(1)	06	08
06	Domestic f vaccum cleaner						4(1)	1(1)			04	06
07	Ele. Fans	1(1)	3(1)				4(2)			6(1)	11	16
08	Domestic floor mill				1(2)	3(1)					03	05
09	Transistors							1(2)		6(1)	06	08
10	Hand dryers					3(1)		1(1)			02	04
11	Emergency light	1(1)					4(1)				03	04
12	Refrigerator				1(1)				3(1)		03	05
13	Washing Machine		3(1)				4(1)	1(1)			04	07
14	Room cooler	1(1)		4(1)				1(1)			04	08
15	Stabilizer Inverter and home protector				1(1)		4(1)				04	05

16	Air Conditioner			4(1)	1(1)						03	05
17	Craft crane and lift	1(1)				3(1)		1(1)			03	05
18	Project on above application								3(1)		03	03
	No. of Question	6	2	3	6	6	6	8	5	4	80	120
	Total Marks	6	6	12	6	18	24	8	16	24		
	Marks with options	24			48			48			80	120

Figures in bracket indicate number of questions and figures outside bracket indicate total marks for the question.

## Name of course :-XII Electrical Technology

### Paper III Electrical Machines (FC)

#### Blue Print

Sr. No	Unit	Knowledge			Understanding			Application			Total Marks	Total Marks With Option
		Objects	Short Answer	Long Answer	Objects	Short Answer	Long Answer	Objects	Short Answer	Long Answer		
1	3 Phase Transformer	1(1)	3(2)		1(1)			1(2)		6(1)	12	20
2	3 Phase A.C. motor	1(1)	3(2)		1(1)		4(2)	1(1)		6(1)	16	24
3	3 Phase A.C.Motor winding		3(2)		1(2)		4(2)	1(2)		6(1)	16	24
4	Control circuit				1(2)	3(2)	4(2)	1(1)		6(1)	16	24
5	Electric Pump				1(2)			1(1)	4(2)		08	10
6	Mootor Starters	1(1)			1(1)			1(1)	4(2)		12	18
	No. of Question	3	7		9	5	6	8	4	4	80	120
	Total Marks	3	21		9	15	24	8	16	24		
	Marks with options	24			48			48			80	120

Figures in bracket indicate number of questions and figures outside bracket indicate total marks for the question.

## Name of course:- XII ELECTRICAL TECHNOLOGY

### Subject - Electrical wiring (FA)

Time -3 Hrs.

Max Marks -80

#### A) Unitwise Distribution of Marks:

Chapter No.	Topic / unit	Marks without option	marks with option
1.	Industrial and commercial wiring	14	16
2.	planning Estimation and costing of electrical wiring	14	24
3.	Generation and transmission	14	24
4.	HT and LT substitution	12	18
5.	Illumination	12	18
6.	Electrical services interactive lecture	14	20
Total:		80	120

#### B) Objectwise Distribution of Marks:

Sr. No	Objective	Marks	Percentage	Marks with Option
1	Knowledge	16	20	24
2	Understanding	32	40	48
3	Application	32	40	48
Total:		80	100	120

#### C) Questionwise Distribution of Marks:

Sr. No	Types of the Question	Marks	Marks with option
1	Objective	20	20
2	Short ans.Type (3 marks)	24	36
3	Long ans. .Type (4 marks)	24	40
4	Long ans. .Type (6 marks)	12	24
Total:		80	120

**Name of course:- XII ELECTRICAL TECHNOLOGY****Subject - Electrical Appliances (FB)**

Time -3 Hrs.

Max Marks -80

**A) Unitwise Distribution of Marks:**

Chapt er No.	Topic / Unit	Marks Without Option	Marks With Option
1	Testing and basic control	10	14
2	Heat convector	04	06
3	Electrical hand drill machine	04	06
4	Introcuction to power tools	03	05
5	Blender/Mixer/food processor	06	08
6	Domestic vaccum cleaner	04	06
7	Electric fans	11	16
8	Domestic floor mill	03	05
9	Transistors	06	08
10	Hand dryers	02	04
11	Emergency light	03	04
12	Refrigerator	03	05
13	Washing machine	04	07
14	Room cooler	04	08
15	Stabilizer,invertor and home protector	04	05
16	Air conditioner	03	05
17	Craft,crane and lift	03	05
18	Project on above appliances	03	03
Total:		80	120

**B) Objectwise Distribution of Marks**

Sr. No	Objective	Marks	Percentage	Marks with Option
1	Knowledge	16	20	24
2	Understanding	32	40	48
3	Application	32	40	48
Total:		80	100	120

**C) Questionwise Distribution of Marks**

Sr. No	Types of the Question	Marks	Marks with option
1	Objective	20	20
2	Short ans.Type (3 marks)	24	36
3	Long ans. .Type (4 marks)	24	40
4	Long ans. .Type (6 marks)	12	24
Total:		80	120

**Name of course:- XII ELECTRICAL TECHNOLOGY****Subject - Electrical Machines (FC)**

Time -3 Hrs.

Max Marks -80

**A) Unitwise Distribution of Marks**

Chapter No.	Topic / unit	Marks Without Option	Marks with option
1	Three Phase Transformer	12	20
2	Three Phase AC Motor	16	24
3	Three Phase AC Motor Winding	16	24
4	Control Circuits	16	24
5	Electric Pumps	08	10
6	Motors Starters	12	18
Total:		80	120

**B) Objectwise Distribution of Marks:**

Sr. No	Objective	Marks	Percentage	Marks With Option
1	Knowledge	16	20	24
2	Understanding	32	40	48
3	Application	32	40	48
Total:		80	100	120

**C) Questionwise Distribution of Marks:**

Sr. No	Types of the Question	Marks	Marks With Option
1	Objective	20	20
2	Short ans.Type (3 marks)	24	36
3	Long ans. .Type (4 marks)	24	40
4	Long ans. .Type (6 marks)	12	24
Total:		80	120

**Question Paper Pattern for Theory Papers**  
**Electrical Technology FA / FB / FC**  
**STD XII**

Time -3 Hrs.

Max Marks -80

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Q.1: A) Select correct alternative and rewrite the sentence

[5 X 1=5 ]

1)-----

a)-----      b)-----      c)-----

2)-----

a)-----      b)-----      c)-----

3)-----

a)-----      b)-----      c)-----

4)-----

a)-----      b)-----      c)-----

5)-----

a)-----      b)-----      c)-----

B) Match the following pairs

[5 X 1=5 ]

1)                      a)

2)                      b)

3)                      c)

4)                      d)

5)                      e)

f)

C) State the following sentences is true or false

[5X1=5]

a)

b)

c)

d)

e)



D) Answer the following in one sentence only

[5X1=5]

a)

b)

c)

d)

e)

Q. 2: Attempt any FOUR of the following

[4X3=12]

a)

b)

c)

d)

e)

f)

Q. 3: Attempt any FOUR of the following

[4X3=12]

a)

b)

c)

d)

e)

f)

Q. 4: Attempt any THREE of the following

[3X4=12]

a)

b)

c)

d)

e)

Q. 5: Attempt any THREE of the following [3X4=12]

a)

b)

c)

d)

e)

Q. 6: A) Attempt any ONE of the following [6X1=06]

a)

b)

B) Attempt any ONE of the following [6X1=06]

a)

b)

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