Directorate of School Education
Government of Tamil Nadu

Higher Secondary -
Second Year - Physics

DESIGN OF THE
QUESTION PAPER
AND
A MODEL BLUE-PRINT
WITH
QUESTION PAPER

TAMIL NADU BOARD

Higher Secondary - Second Year - Physics - Theory

DESIGN OF THE QUESTION PAPER

Time : 3 hrs. Maximum mark : 150

1. Weightage to learning outcomes

Objective	Mark	Percentage
Knowledge	81	35%
Understanding	92	40%
Application	46	20%
Skill	11	5%
Total	**230**	**100%**

Note :

(i) Total of 230 marks is inclusive of choice.

(ii) There can be a slight variation of 5%.

2. Weightage to various types of questions

Sl. No.	Type of Questions	Mark for each question	Total No. of questions	No. of Questions to be answered	Total Mark
1.	Part I – MCQ	1	30	30	30
2.	Part II – VSA	3	20	15	45
3.	Part III – SA	5	12	7	35
4.	Part IV – LA	10	8	4	40
			70	**56**	**150**

Note :

(i) Of the total 230 marks, numerical problems should be given for 35 marks (In Part I – 5 numerical problems, Part II – 5 numerical problems, Part III – 3 numerical problems)

(ii) In part-III, 3 numerical problems should be given. Out of these three problems any one numerical problem should be made compulsory. This compulsory problem should have an internal choice, provided both the problems must be from same chapter (unit).

(iii) Of the 220 marks, atleast 60% mark should be alloted for the questions from solved problems, Self evaluation questions and exercise problems. The rest will be from the content of the text book.

(iv) MCQ – Multiple Choice Question VSA – Very Short Answer

SA – Short Answer LA – Long Answer

3(b). Weightage to various units (chapters)

Second Year (+2)

Unit	Mark
1. Electrostatics	25
2. Current electricity	20
3. Effects of electric current	20
4. Electromagnetic induction and alternating current	25
5. Electromagnetic waves and wave optics	25
6. Atomic physics	25
7. Dual nature of radiation and matter – Relativity	15
8. Nuclear physics	25
9. Semiconductor devices and their applications	30
10. Communication Systems	20
Total Mark (including choice)	**230**

Note :

There may be a slight variation to the extent of 5 marks.

4. Expected time required

Sl. No.	Form of questions	Expected time
1.	Part I	30 minutes
2.	Part II	45 minutes
3.	Part III	45 minutes
4.	Part IV	60 minutes
		180 minutes

5. Level of questions

1.	Easy	60%
2.	Difficult	30%
3.	Very difficult	10%

Note :

Any question paper setter must strictly follow the above mentioned design of the question paper. There should be no deviation.

BLUE PRINT - PHYSICS - Higher Secondary – Second Year

(The question paper setter should have a thorough knowledge about the design of the paper)

Time : 3 Hours **Total marks to be answered 150** *** Total marks including options 230**

UNIT	OBJECTIVES	KNOWLEDGE				UNDERSTANDING				APPLICATION				SKILL				TOTAL
		MCQ	VSA	SA	LA	MCQ	VSA	SA	LA	MCQ	VSA	SA	LA	MCQ	VSA	SA	LA	
1.	Electrostatics	1(1)	3(1)	-	-	-	-	5(1)	10(1)	1(3)	3(1)	-	-	-	-	-	-	25(8)
2.	Current electricity	1(1)	3(2)	5(1)	-	-	3(1)	5(1)	-	-	-	-	-	-	-	-	-	20(6)
3.	Effects of electric current	-	-	-	10(1)	-	3(1)	5(1)	-	1(2)	-	-	-	-	-	-	-	20(5)
4.	Electromagnetic induction and alternating current	1(1)	-	5(1)	-	-	3(1)	-	10(1)	1(3)	3(1)	-	-	-	-	-	-	25(8)
5.	Electromagnetic waves and wave optics	1(1)	-	-	10(1)	-	3(2)	5(1)	-	1(3)	-	-	-	-	-	-	-	25(8)
6.	Atomic physics	-	-	5(1)	-	-	-	-	10(1)	1(4)	3(2)	-	-	-	-	-	-	25(8)
7.	Dual nature of radiation and matter – Relativity	-	-	5(1)	-	-	-	5(1)	-	1(2)	3(1)	-	-	-	-	-	-	15(5)
8.	Nuclear physics	1(2)	-	-	10(1)	-	3(1)	5(1)*	-	1(2)	3(1)	-	-	-	-	-	-	25(8)
9.	Semi conductor devices and their applications	1(2)	-	5(1)	10(1)	-	3(1)	-	-	1(1)	3(2)	-	-	-	3(1)	-	-	30(9)
10.	Communication Systems	-	-	-	-	-	-	-	10(1)	1(2)	3(1)	-	-	-	-	5(1)	-	20(5)
		1(8)	**3(3)**	**5(5)**	**10(4)**	**-**	**3(7)**	**5(6)**	**10(4)**	**1(22)**	**3(9)**	**-**	**-**	**-**	**3(1)**	**5(1)**	**-**	**230(70)**

* Two problems are given with internal choice.