



**Maharashtra State Board of Secondary and
Higher Secondary Education, Pune**

Sub. : Physics (54)

Std. XII

Weightage to Units			
Sr. No.	Unit	Marks	Marks with option
1.	Rotational Dynamics	05	07
2.	Mechanical properties of fluids	05	07
3.	Kinetic Theory of Gases and Radiation	05	07
4.	Thermodynamics	05	07
5.	Oscillations	04	05
6.	Superposition of Waves	04	06
7.	Wave Optics	05	07
8.	Electrostatics	04	06
9.	Current Electricity	04	06
10.	Magnetic Fields due to Electric Current	04	06
11.	Magnetic Materials	04	05
12.	Electromagnetic Induction	05	07
13.	AC circuits	04	06
14.	Dual Nature of Radiation and Matter	04	05
15.	Structure of Atoms and Nuclei	04	06
16.	Semiconductor Devices	04	05
	Total	70	98

* Weightage to Learning Objectives			
Sr. No.	Learning Objectives	Total Weightage (With Option)	Percentage
1.	Knowledge	29 Marks	30%
2.	Understanding	41 Marks	42%
3.	Application & Skill	28 Marks	28%
	Total	98 Marks	100%

* Difficulty level of the questions			
Sr. No.	Difficulty level	Total Weightage (With Option)	Percentage
1.	Easy	29 Marks	30%
2.	Average	49 Marks	50%
3.	Difficulty	20 Marks	20%
	Total	98 Marks	100%

* Weightage as per type of questions			
Type of questions	Marks for each questions	Number of questions	Total Marks
MCQ	1 Mark each	Q. No. 1 (i to x)	10 Marks
VSA	1 Mark each	Q. No. 2 (i to viii)	08 Marks
SA- I	2 Marks each	Q. No. 3 to 14	24 Marks
SA -II	3 Marks each	Q. No. 15 to 26	36 Marks
LA	4 Marks each	Q. No. 27 to 31	20 Marks
		Total	98 Marks

Note for Practical Evaluation:

Higher secondary (XI&XII), Instructions for conducting practical examination has been printed in the Hand Book published by Balbharati for the academic year 2020-2021 for Physics, Chemistry, Biology, Mathematics and Statistics



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Evaluation Scheme of Practical Examination

Physics (54)

Std XII

Annual Practical Examination		
Time : 3 Hours	Total Marks : 30	(Passing Marks : 11)
A	One long experiment (1hour 30 minutes)	10 marks
i	Circuit diagram /Ray diagram /Experimental diagram	1 mark
Ii	Setting of apparatus /circuit connections	1 mark
Iii	Formula with explanation/law	1 mark
Iv	Performance with proper recording of observations	3 marks
V	Graph /calculation or both	2 marks
vi	Result with proper unit /conclusions	2 marks
B	One short experiment (45minutes)	5 marks
i	Circuit diagram /Ray diagram /Experimental diagram	1 mark
ii	Performance with proper recording of observations	2 marks
iii	Graph /calculation or both	1 marks
iv	Result with proper unit /conclusions	1marks
C	Any one Activity (30minutes)	5 marks
i	Performance of activity with proper recording of observations	3 marks
Ii	Write-up of activity	1 mark
iii	Result with proper unit/conclusions	1 mark
D	Viva based on experiments/activities performed during the year. (15minutes)	5 marks
E	Certified journal	5 marks

Note: Minimum 75% of the experiments and the activities mentioned in the handbook should be completed during the academic year.



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Proposed Evaluation Pattern

Question Paper Pattern (XII)

Physics (54)

(Year 2020-2021)

Time- 3 hrs.

Total Marks -70

General Instructions: - The question paper is divided into four sections.

(1) Section A :

Q. No.1 contains Ten multiple choice type of questions carrying One mark each.

Q. No.2 contains Eight very short answer type of questions carrying One mark each.

(2) Section B :

Q. No.3 to Q.No.14 contains Twelve short answer type of questions carrying Two marks each. (Attempt any Eight).

(3) Section C :

Q. No.15 to No. 26 contains Twelve short answer type of questions carrying Three marks each. (Attempt any Eight).

(4) Section D :

Q.No.27 to Q.No.31 contains Five long answer type of questions carrying Four marks each. (Attempt any Three).

(5) Use of log table is allowed. Use of calculator is not allowed.

(6) Figures to the right indicate full marks.

(7) For each MCQ, correct answer must be written along with its alphabet.

e.g., (a).... / (b)/ (c)..... / (d)..... Only first attempt will be considered for evaluation.

(8) Physical constants:-

i)-----

ii)-----

iii)-----



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Question Paper Format For Unit Test
Physics
(Year 2020-2021 Onwards)

Time- 1.30 hrs.

Marks : 25

Section A

Q.No.1 Select and write the correct answer: [04]

(i) to (iv) MCQ

Q.No.2 Answer the following: [03]

(i) to (iii) VSA

Section B

Attempt any Four: [08]

Q.No.3 to No. 8 SA-I

Section C

Attempt any Two: [06]

Q.No.9 to No. 11 SA-II

Section D

Attempt any One [04]

Q.No.12 to No. 13 LA



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**Question Paper Format For Terminal Examination
Physics (54)
(Year 2020-2021 Onwards)**

Time- 2.30 hrs.

Marks : 50

Section A

Q.No.1 Select and write the correct answer: [07]

(i) to (iv) MCQ

Q.No.2 Answer the following: [07]

(i) to (vii) VSA

Section B

Attempt any Eight: [16]

Q.No.3 to No. 13 SA-I

Section C

Attempt any Four: [12]

Q.No. 14 to No. 19 SA-II

Section D

Attempt any Two: [08]

Q.No. 20 to No. 23 LA



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Question Paper Format for Annual Examination
Physics (54)
(Year 2020-2021 Onwards)

Time- 3 hrs

Total Marks -70

General Instructions: The question paper is divided into four sections.

(1) Section A :

Q. No.1 contains Ten multiple choice type of questions carrying One mark each.

Q. No.2 contains Eight very short answer type of questions carrying One mark each.

(2) Section B :

Q. No.3 to Q.No.14 contains Twelve short answer type of questions carrying Two marks each. (Attempt any Eight).

(3) Section C :

Q. No.15 to No. 26 contains Twelve short answer type of questions carrying Three marks each. (Attempt any Eight).

(4) Section D :

Q.No.27 to Q.No.31 Contains Five long answer type of questions carrying Four marks each. (Attempt any Three).

(5) Use of log table is allowed. Use of calculator is not allowed.

(6) Figures to the right indicate full marks.

(7) For each MCQ, correct answer must be written along with its alphabet.

e.g., (a).... / (b)/(c)..... / (d)..... Only first attempt will be considered for evaluation.

(8) Physical constants:-

i)-----

ii)-----

iii)-----

Section A

Q. No. 1 Select and Write the correct answer: (10)
(i) to (x) MCQ (7 Theory + 3 Numericals)

Q. No. 2 Answer the following: (08)
(i) to (viii) VSA (6 Theory + 2 Numericals)

Section B

Attempt any Eight: (16)
Q.No.3 to No. 14 SA-I (7 Theory + 5 Numericals)

Section C

Attempt any Eight: (24)
Q.No.15 to No. 26 SA-II (7 Theory + 5 Numericals)

Section D

Attempt any Three: (12)
Q.No.27 to No. 31 LA
(3 Questions must carry 2 marks Theory and 2 marks Numericals)

Note: - Numerical should be of maximum (12 to 15 Marks).
Numerical should be included in each section.