

# DESIGN OF THE QUESTION PAPER

## FIRST FORMATIVE TEST – Subjective

Class : X

Subject: Science Time : 60 Min. Max. Marks: 20

YEAR : 2023-24

The weightage or the distribution of marks over different dimensions of the questionpaper shall be as follows :

### 1. Weightage to Learning Outcomes :

Sr.No	Learning Outcomes	Marks	Percentage of Marks
1.	Knowledge	06	30%
2.	Understanding	08	40%
3.	Application	04	20%
4.	Skill	02	10%
	<b>Total</b>	<b>20</b>	<b>100%</b>

### 2. Weightage to Content/Subject Units :

Sr. No.	Ch. No.	Units	Marks	Deletions
1	1	Chemical Reactions and Equations	5	No Deletions
4	7	Control and Coordination	5	No Deletions
6	12	Electricity	6	No Deletions
8	14	Sources of Energy	4	No Deletions
		<b>Total</b>	<b>20</b>	

### 3. Weightage to Forms of Questions :

Sr.No.	Form of Questions	Marks for each question	Number of questions	Total Marks
1.	Long Answer Type (LA)	4	01	04
2.	Short Answer Type (SA-II)	3	02	06
3.	Short Answer Type (SA-I)	2	03	04
4.	Very Short Answer Type (VSA)	1	04	04
	<b>Total</b>		<b>10</b>	<b>20</b>

4. The expected time for different types of question would be as follows :

S.No.	Form of Questions	Approx. time for each Question in mins (t)	Number of questions (n)	Approx. time for each form of Questions in mins (n x t)
1	Long Answer Type (LA)	12	01	12
2	Short Answer Type (SA-II)	06	02	12
3	Short Answer Type (SA-I)	08	03	24
4	Very Short Answer Type (VSA)	03	04	12
	<b>Total</b>			<b>60</b>

As the total time is calculated on the basis of the number of questions required to be answered and the length of their anticipated answers, it would, therefore, be advisable for the candidates to budget their time properly by cutting out the superfluous words and be within the expected time limits.

### 5. Scheme of Options

There will be no overall choice, However, there is an internal choice in some questions. While framing MCQ's, no alternatives / options are to be marked by using alphabets. All alternatives / options are to be indicated by using bullet markings.

### 6. Weightage to Difficulty level of questions :

S.No.	Estimated difficulty level of question	Percentage
1	Easy	20%
2	Average	60%
3	Difficult	20%

A question may vary in difficulty level from individual to individual, As such, the assessment in respect of each question will be made by the paper setter on the basis of general anticipation from the group as a whole taking the examination. This provision is only to make the paper balanced in its weightage, rather than to determine the pattern of marking at any stage.

### 7. Number of main Questions :

It has been decided to introduce serial wise question number and to do away with sub-question among the questions.

# DESIGN OF THE QUESTION PAPER

## SECOND FORMATIVE TEST – Subjective

Class : X

Subject: Science      TIME : 60 Min.      Max. Marks: 20

YEAR : 2023-24

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The weightage or the distribution of marks over different dimensions of the questionpaper shall be as follows :

### 1.Weightage to Learning Outcomes :

Sr.No	Learning Outcomes	Marks	Percentage of Marks
1.	Knowledge	06	30%
2.	Understanding	08	40%
3.	Application	04	20%
4.	Skill	02	10%
	<b>Total</b>	<b>20</b>	<b>100%</b>

### 2.Weightage to Content/Subject Units :

Sr. No.	Ch. No.	Units	Marks	Deletions
1	2	Acids, Bases and Salts	5	No Deletions
2	3	Metals and Non-Metals	4	No Deletions
3	8	How do Organisms Reproduce?	6	No Deletions
4	13	Magnetic Effects of Electric Current	5	No Deletions
		<b>Total</b>	<b>20</b>	

### 3.Weightage to Forms of Questions :

Sr.No.	Form of Questions	Marks for each question	Number of questions	Total Marks
1.	Long Answer Type (LA)	4	01	04
2.	Short Answer Type (SA-II)	3	02	06
3.	Short Answer Type (SA-I)	2	03	06
4.	Very Short Answer Type (VSA)	1	04	04
	<b>Total</b>		<b>10</b>	<b>20</b>

#### 4.The expected time for different types of question would be as follows :

S.No.	Form of Questions	Approx. time for each Question in mins (t)	Number of questions (n)	Approx. time for each form of Questions in mins (n x t)
1	Long Answer Type (LA)	12	01	12
2	Short Answer Type (SA-II)	06	02	12
3	Short Answer Type (SA-I)	08	03	24
4	Very Short Answer Type (VSA)	03	04	12
	<b>Total</b>			<b>60</b>

As the total time is calculated on the basis of the number of questions required to be answered and the length of their anticipated answers, it would, therefore, be advisable for the candidates to budget their time properly by cutting out the superfluous words and be within the expected time limits.

#### 5. Scheme of Options

There will be no overall choice, However, there is an internal choice in some questions. While framing MCQ's, no alternatives / options are to be marked by using alphabets. All alternatives / options are to be indicated by using bullet markings.

#### 6.Weightage to Difficulty level of questions :

S.No.	Estimated difficulty level of question	Percentage
1	Easy	20%
2	Average	60%
3	Difficult	20%

A question may vary in difficulty level from individual to individual, As such, the assessment in respect of each question will be made by the paper setter on the basis of general anticipation from the group as a whole taking the examination. This provision is only to make the paper balanced in its weightage, rather than to determine the pattern of marking at any stage.

#### 7.Number of main Questions :

It has been decided to introduce serial wise question number and to do away with sub-question among the questions.

# DESIGN OF THE QUESTION PAPER

## FINAL BOARD EXAM – Subjective

**Subject: Science**

**TIME : 150 Min.**

**Class : X**

**YEAR : 2023-24**

**Max. Marks: 70**

The weightage or the distribution of marks over different dimensions of the questionpaper shall be as follows :

### 1.Weightage to Learning Outcomes :

Sr.No	Learning Outcomes	Marks	Percentage of Marks
1.	Knowledge	21	30 %
2.	Understanding	28	40 %
3.	Application	14	20 %
4.	Skill	07	10 %
	<b>Total</b>	70	100

### 2.Weightage to Content/Subject Units :

Sr.No.	Units	Marks	Deletions
1.	Chemical Reactions and Equations	4	No deletion
2.	Acids, Bases and Salts	5	No deletion
3.	Metals and Non metals	4	No deletion
4.	Carbon and its Compounds	5	No deletion
5.	Periodic Classification of Elements	4	No deletion
6.	Life Processes	6	No deletion
7.	Control and Co-ordination	4	No deletion
8.	How do Organisms Reproduce?	5	No deletion
9.	Heredity and Evolution	4	No deletion
10.	Light-Reflection and Refraction	6	No deletion
11.	Human Eye and Colourful world	5	No deletion
12.	Electricity	5	No deletions

13.	Magnetic Effect of Electric Current	5	No deletion
14.	Sources of Energy	3	No deletion
15.	Our Environment	3	No deletion
16.	Management of Natural Resources	2	No deletion
	<b>Total</b>	<b>70</b>	

### 3. Weightage to Forms of Questions :

Sr.No.	Form of Questions	Marks for each question	Number of questions	Total Marks
1.	Long Answer Type (LA)	4	3	12
2.	Short Answer Type (SA-II)	3	4	12
3.	Short Answer Type (SA-I)	2	14	28
4.	Very Short Answer Type (VSA)	1	18	18
	<b>Total</b>		<b>39</b>	<b>70</b>

### 4. The expected time for different types of question would be as follows :

S.No.	Form of Questions	Approx. time for each Question in mins (t)	Number of questions (n)	Approx. time for each form of Questions in mins (n x t)
1	Long Answer Type (LA)	10	03	30
2	Short Answer Type (SA-II)	7	04	28
3	Short Answer Type (SA-I)	4	14	56
4	Very Short Answer Type (VSA)	2	18	36
	<b>Total</b>			<b>150</b>

As the total time is calculated on the basis of the number of questions required to be answered and the length of their anticipated answers, it would, therefore, be advisable for the candidates to budget their time properly by cutting out the superfluous words and be within the expected time limits.

## 5. Scheme of Options

There will be no overall choice, However, there is an internal choice in some questions. While framing MCQ's, no alternatives / options are to be marked by using alphabets. All alternatives / options are to be indicated by using bullet markings.

## 6. Weightage to Difficulty level of questions :

S.No.	Estimated difficulty level of question	Percentage
1	Easy	20%
2	Average	60%
3	Difficult	20%

A question may vary in difficulty level from individual to individual, As such, the assessment in respect of each question will be made by the paper setter on the basis of general anticipation from the group as a whole taking the examination. This provision is only to make the paper balanced in its weightage, rather than to determine the pattern of marking at any stage.

## 7. Number of Main Questions :

It has been decided to introduce serial wise question number and to do away with sub-question among the questions.

**Pattern Of SSC Final Exam Question Paper YEAR: 2023-24**

**Subject : SCIENCE TIME: 150 Min. Max. Marks : 70**

Sr.No. /Q. No.	Objective	Content area /Major area of content	Form of the questions	Language of questions	Difficulty of the answers	Difficulty level of the questions	Marks allotted	
1	K	Chp 1	VSA	Specific	Definite	Easy	1	
2	K	Chp 16	VSA	Specific	Definite	Easy	1	
3	K	Chp 2	VSA	Specific	Definite	Easy	1	
4	K	Chp 14	VSA	Specific	Definite	Easy	1	
5	U	Chp 3	VSA	Specific	Definite	Average	1	
6	K	Chp 10	VSA	Specific	Definite	Easy	1	
7	U	Chp 7	VSA	Specific	Definite	Average	1	
8	K	Chp 13	VSA	Specific	Definite	Easy	1	
9	K	Chp 3	VSA	Specific	Definite	Easy	1	
10	U	Chp 13	VSA	Specific	Definite	Average	1	
11	U	Chp 10	VSA	Specific	Definite	Average	1	
12	A	Chp 1	VSA	Specific	Definite	DIFFICUL	1	
13	U	Chp 4	VSA	Specific	Definite	Average	1	
14	U	Chp 16	VSA	Specific	Definite	Average	1	
15	U	Chp 4	VSA	Specific	Definite	Average	1	
16	K	Chp 15	VSA	Specific	Definite	Easy	1	
17	K	Chp 12	VSA	Specific	Definite	Easy	1	
18	S	Chp 7	VSA	Specific	Definite	Easy	1	18
19	K (a)	Chp 11	SA I	Specific	Definite	Easy	1	2
	(b)			Specific	Definite	Easy	1	
20	U	Chp 1	SA I	Specific	Definite	Average	2	2
21	S (a)	Chp 6	SA I	Specific	Definite	Average	1	2
	(b)			Specific	Definite	Average	1/2+1/2	
22	U (a)	Chp 3	SA I	Specific	Definite	Average	1	2
	(b)			Specific	Definite	Average	1	
23	K (a)	Chp 7	SA I	Specific	Definite	Average	1	2
	(b)			Specific	Definite	Average	1	
24	U	Chp 15	SA I	Specific	Definite	Average	2	2
25	U (a)	Chp 9	SA I	Specific	Definite	Average	1	2
	(b)			Specific	Definite	Average	1	
26	K (a)	Chp 9	SA I	Specific	Definite	Average	1	2
	(b)			Specific	Definite	Average	1	
27	U	Chp 2	SA I	Specific	Definite	Average	2	2
28	S (a)	Chp 8	SA I	Specific	Definite	Average	1	2
	(b)			Specific	Definite	Average	1/2+1/2	
29	U	Chp 14	SA I	Specific	Definite	Average	2	2



30(A)a)	K	Chp 2	SA I	Specific	Definite	Easy	1	2	
b)	K			Specific	Definite	Easy	1		
<b>OR</b>			<b>OR</b>				<b>OR</b>		
30(B) a)	K	Chp 2	SA I	Specific	Definite	Easy	1	2	
b)	K		SA I	Specific	Definite	Easy	1		
31(A) a)	A	Chp 10	SA I	Specific	Definite	DIFFICUL	1	2	
b)	A			Specific	Definite	DIFFICUL	1		
<b>OR</b>			<b>OR</b>				<b>OR</b>		
31(B) a)	A	Chp 10	SA I	Specific	Definite	DIFFICUL	1	2	
b)	A		SA I	Specific	Definite	DIFFICUL	1		
32(A) a)	S	Chp 10	SA I	Specific	Definite	Average	1	2	
b)	S		SA I	Specific	Definite	Average	1		
<b>OR</b>			<b>OR</b>				<b>OR</b>		
32(B) a)	S	Chp 10	SA I	Specific	Definite	Average	1	2	28
b)	S		SA I	Specific	Definite	Average	1		
33 a)	U	Chp 4	SA II	Specific	Definite	Average	2	3	
b)	U			Specific	Definite	Average	1		
34 a)	U	Chp 8	SA II	Specific	Definite	Average	1	3	
b)							1		
c)							1		
35(A) a)	U	Chp 11	SA II	Specific	Definite	Average	2	3	
b)			SA II	Specific	Definite	Average	1		
<b>OR</b>			<b>OR</b>				<b>OR</b>		
35(B) a)	U	Chp 11	SA II	Specific	Definite	Average	2	3	
b)			SA II	Specific	Definite	Average	1		
36(A) a)	A	Chp 13	SA II	Specific	Definite	Difficult	1	3	
b)			SA II	Specific	Definite	Difficult	1		
c)			SA II	Specific	Definite	Difficult	1		
<b>OR</b>			<b>OR</b>				<b>OR</b>		
36(B) a)	A	Chp 13	SA II	Specific	Definite	Difficult	1	3	12
b)			SA II	Specific	Definite	Difficult	1		
c)			SA II	Specific	Definite	Difficult	1		

37 a)	A	Chp 5	LA	Specific	Definite	Difficult	1	4	
b)				Specific	Definite	Difficult	1		
c)				Specific	Definite	Difficult	2		
38 a)	K	Chp 6	LA	Specific	Definite	Average	1	4	
b)				Specific	Definite	Average	1		
c)				Specific	Definite	Average	1		
d)				Specific	Definite	Average	1		
39(A) a)	A	Ch12	LA	Specific	Definite	Difficult	1	4	
b)				Specific	Definite	Difficult	1		
c)				Specific	Definite	Difficult	2		
<b>OR</b>			<b>OR</b>				<b>OR</b>		
39(B) a)	A	Chp 12	LA	Specific	Definite	Difficult	1	4	12
b)				Specific	Definite	Difficult	1		
c)				Specific	Definite	Difficult	2		
									70

VSA - NO OPTION	Level	marks	%
SA I - 3 INTERNAL OPTION(3 QUEST)	EASY	14	20%
SA II - 2 INTERNAL OPTIONS (2 QUEST)	AVERAGE	42	60%
LA - 1 INTERNAL OPTION(1 QUEST)	DIFFICULT	14	20%



## Revised pattern of assessment /grading in science for std X with effect from the academic year 2023-24

Internal Marks			Internal marks (20+20+20)/6=10	Final Board Exam	Practicals	Total
First Formative	Second formative	Innovative Test / assignment / Project				
20	20	20	10	70	20	100

### Distribution of Practical marks in science for SSC examination

Max. Marks: 20 marks

Duration : 1 hr.

Long experiment : 10 marks

Short experiment : 5 marks

Journal : 5 marks