Pattern Of The Question Paper

First Mid Term Exam/ Second Mid Term Exam

From 2016-17 onwards

Std IX Subject: Science Marks:- 20 Time:- 1Hr.

Q. 1 A)	i)	1mk
	ii)	
B)	i)	1mk
	ii)	1mk
c)		3mks
D)	i)	2mks
	ii)	2mks
Q.2 A)	i)	1mk
	ii)	
B)	i)	2mks
	ii)	
C)	i)	3mks
	ii)	
	iii)	
D)		4mks

Pattern of the Question Paper 2016-17onwards

Examination: 1st / 2nd Term

Std IX Subject: Science Marks:- 65 Time:- $2^1/_2$ Hrs.

		.Marks
Q.1.A . i)	a)	1
	b)	
ii)		1
iii)		1
iv)		1
B . i)		2
ii)		2
iii)		2
C.		3
Q.2.A . i)	a)	1
	b)	
ii)		1
iii)		1
iv)		1
B . i)		2
ii)		2
iii)		2
C.		3
Q.3.A . i)	a)	1
	b)	
ii)		1
iii)		1
iv)		1
v)		1
B . i)		2
ii)		2
C.		4

Q.4.A . i)	a)	1
	b)	
ii)	a)	1
	b)	
iii)		1
B . i)		2
ii)		2
iii)		2
C.		4
Q.5.A . i)	a)	1
	b)	
ii)	a)	1
	b)	
iii)		1
iv)		1
B .		2
C.		3
D.		4

Std IX Assignments (First Term) (Any one 20mks)

1. Students can collect water from tap/ well/ kitchen of their own houses, drains of their locality and find out the difference in terms of colour, odour and components etc.
2. List 10 different situations where you observe an application of force mentioning the effect it produces.
3. To find the density of a wooden rectangular block in water.
4. To find the density of a rectangular piece of stone like marble, granite or cuddapa in water.
5. To measure the speed of any 5 moving objects using a measuring tape and a stop watch in cm/s and later converting into m/sec.
6. Frictional force, its pros and cons in our day to day lives.
7. To prepare a coloured chart showing electronic distribution of first 18 elements along with their valencies.
8. Prepare charts to show different methods of classification of organisms.

----------OR ANY OTHER SIMILAR ASSIGNMENTS-------

PROJECT SECOND TERM (Any one) 20 mks Std. IX

1. Prepare a chart / poster of disease caused by microbes and their mode of spread.

(a) Bacterial disease

(b) Viral disease

(c)Protozoan disease

2. Make a model of various water harvesting techniques.
3. Make some devices on solar energy. (Students may use "Do it yourself" kits available in the market or online)
4. Visit a weed infected field in the month of July or August and make a list of the weeds, insects, pests and diseases noticed in crops observed in fields.
5. Find out the facts about the electron microscope from resources in the school library or through internet.
6. Information on importance of diffusion in plants and animals
7. To list the names of local variety and hybrid variety of plants / crops. grown in Goa in the past and present. Also collect the names of local variety of crop/ vegetables which are not available now and find out the positive aspects of them and the reason of their unavailability.
8. To prepare a poster showing ill effects of fertilizers and pesticides in plants, animals and human beings by collecting information from different sources.

9. To prepare a list of 20 local fishes found in Goa and write its local name, English name and scientific name if any. Also note down the habitat to which they belongs.(pictures, or posters / PowerPoint presentation).

10. Prepare a model of Human ear label the parts. Also find out causes of deafness.

11. To investigate the outbreak of new diseases like Ebola, Zika etc. and note down it causes symptoms and treatment.

12. To demonstrate production of high frequency and low frequency sounds using different objects.

13. Making musical tunes by producing sounds using different utensils, glasses, metal containers.

14. To prepare a working model of longitudinal waves and transversal waves and note down its differences.

15. To make a study of olive Ridley turtles nesting on Morjim beach and Galgibag beach and its life cycle.

16. Write a skit and dramatize at least 5-6 diseases its symptoms, causes and care.

    Hint: Doctor, nurse, patients (a scene at a clinic)

    Students will act out the skit and submit the script.

17. To demonstrate or dramatize Newton 3rd law of motion by performing at least 10 activities. List of activities with drawing / pictures must also be submitted.

18. To visit a public health center and prepare a table showing different vaccines administered to a child from birth. (Age wise). Also write the importance of Polio and Tetanus vaccine.

19. To find out the causes symptoms, prevention and cure of Rabies. Importance of taking an anti rabies injection and its dosage after a dog bite. To list names of other animals other than dogs that causes rabies.

20. To make a study of the causes of Malaria, Filaria, Dengue fever and monkey fever (reported in Goa) its symptoms, prevention and cure.

21. A visit to a poultry farm / dairy farm and to study the following.

    1. Breeds (their names).
    2. Feed (their brands).
    3. Care / shelter / cleanliness / water.
    4. Vaccination administered at various stages.
    5. Production of eggs / milk versus our local breeds.

OR ANY OTHER PROJECTS ON SIMILAR LINES.

Guidelines for Evaluation of the Assignments and Project

Class IX **Subject: Science** **Total Marks: 20**

Criteria for Evaluation of Assignments (20MKS)

1. Relevance of the topic	2 Marks
2. Subject matter	7 Marks
3. Creativity / Innovation	5 Marks
4. Logic presentation of ideas and neatness	4 Marks
5. Oral	2 Marks
	20 Marks

Criteria for Evaluation of Project (20 Marks)

1. Relevance of the topic	2 Marks
2. Creativity / Innovation	7 Marks
3. Presentation of ideas and neatness	7 Marks
4. Oral	4 Marks
	20 Marks

Note:

1. Refer the list of Assignments and Projects circulated earlier.
2. Direct print outs of the information about assignments should not be allowed however small printed matter highlighting certain points on chart paper / poster is allowed.
3. Readymade projects should not be accepted.
4. Only Environment friendly materials should be used for projects as far as possible.
5. PowerPoint presentation may be accepted in certain cases as per the needs of the project/Assignment
6. Fancy material / decoration/ colorful paper must be avoided.

GENERAL GUIDELINES FOR

ASSIGNMENT'S AND PROJECTS FOR IX & X

Terminology:

ASSIGNMENT: It is focused on specific, pre-defined tasks.

PROJECT: Involves a variety of inter related tasks to be performed in order to achieve a particular aim.

OBJECTIVES:

1. Assignment and projects are extended classroom activities.
2. It is a window to bring in outside world of facts, inventions, discoveries, innovation, concepts into the classroom.
3. To make student aware of the latest developments in science and technology.
4. To make students aware of latest outbreak of new diseases, virus or microbes etc.

Note: Such assignments could be made mandatory for a particular class of students in that particular year.

5. Students receive hands on experience in constructing and assembling a working model.

6. Students must be given a fair choice to choose the topic for their assignments / projects as per their interest.

7. Topics given to the students may be related to the syllabus or from outside.

8. If topics are related to the syllabus, then the students must be guided to go in depth beyond the textbook.

9. Choice of topics given by the teacher should cover all areas of science and technology.

Eg. Sound, light, robotics, biotechnology, optic, electricity, electronics, plant kingdom, animal kingdom, water, agriculture, music etc.

10.Students must understand concepts, principle, and working of the above assembled projects.

11. Teachers must encourage students to innovate, modify existing known technology. Focus on moving from conventional to non-conventional use of energy.

Eg. Solar powered projects like solar car, solar boat, solar windmill solar mobile charger etc.

12. An assignment is an individual activity.

ie. Each student presents ONE assignment.

13. PROJECTS are a group activity.

(Group comprising of 3 to 5 students)

14. Project could be a role play or dramatizing which may require more students. Students may be allowed to expand their group in such cases.

15. Some Assignment / Projects that may require a lot of pictures or short animations. This could be carried out by a PowerPoint presentation where students must explain the project.

16. In case of projects, the group of students will present the same in the class, assembly, school exhibition or any school gathering which will promote awareness.

17. Fancy materials and decorations must be avoided.

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FIRST MID-TERM

DESIGN OF QUESTION PAPER

CLASS:- IX **SUBJECT:- SCIENCE**

TIME:-1 HOUR **MAX.MARKS:- 20**

The weightage or the distribution of marks over different dimension of the question paper shall be as follows.

1. Weightage to learning outcomes:

Sr.No.	Learning outcomes	Marks	Percentage of marks
1.	Knowledge	05	25%
2.	Understanding	08	40%
3.	Application	05	25%
4.	Skill	02	10%
	Total	**20**	**100%**

2. Weightage to content / subject units:

Sr.No.	Units	CHAPTER NO.	Marks
1.	MATTER IN OUR SURROUNDING	1	05
2.	THE FUNDAMENTAL UNIT OF LIFE	5	06
3.	MOTION	8	06
4.	IMPROVEMENT IN FOOD RESOURCES		03
5.			
6.			
7.			
	TOTAL		**20**

3. Weightage to forms of questions:

Sr. No.	Form of Questions	Marks for Each question	Number Of question	Total Marks
1.	Long Answer Type (LA)	4	1	4
2.	Short Answer Type (SA)	2	3	6
3.	Short Answer Type (SA-II)	3	2	6
4.	Very Short Answer (VSA)	1	4	4
	Total			**20**

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

Sr. No.	Form of Questions	Approx. time for each question in mins. (t)	Number of questions (n)	Approx. time for each form question in mins. (n x t)
1.	Long Answer Type (LA)	12	1	12
2.	Short Answer Type (SA)	06	3	18
3.	Short Answer Type (SA-II)	09	2	18
4.	Very Short Answer (VSA)	03	4	12
	Total			**60**

As the total time is calculated on the basis of numbers 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.

4. Scheme of option:

5. Weightage to difficulty level of questions:

Sr. No.	Estimated difficulty level of question	Marks	Percentage
1.	Easy	04	20%
2.	Average	12	60%
3.	Difficult	04	20%
	Total	**20**	

A question may vary in difficulty level from individual. As such, the assessment in respect of each question will be made by 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 weightage, rather than to determine the pattern of marking at any stage.

6. Number of main questions: 2 questions of 10 marks each.

There will be 4 main questions: 2 questions of 10 mark each and 2 questions of 15 mark each.

FIRST TERMINAL EXAMINATION

DESIGN OF QUESTION PAPER

CLASS:- IX **SUBJECT:- SCIENCE**

TIME:-2 1/2 HOURS **MAX.MARKS:- 65**

The weightage or the distribution of marks over different dimension of the question paper shall be as follows.

1. Weightage to learning outcomes:

Sr.No.	Learning outcomes	Marks	Percentage of marks
1.	Knowledge	17	25%
2.	Understanding	26	40%
3.	Application	16	25%
4.	Skill	06	10%
	Total	**65**	**100%**

2. Weightage to content / subject units:

Sr.No.	Units	CHAPTER NO.	Marks
1.	MATTER IN OUR SURROUNDING	1	05
2.	IS MATTER AROUND US PURE	2	06
3.	THE FUNDAMENTAL UNIT OF LIFE	5	10
4.	TISSUES	6	10
5.	MOTION	8	10
6.	FORCE AND LAWS OF MOTION	9	10
7.	GRAVITATION	10	08
8.	IMPROVEMENT IN FOOD RESOURCES	15	05
	TOTAL		**65**

3. Weightage to forms of questions:

Sr. No.	Form of Questions	Marks for Each question	Number Of question	Total Marks
1.	Long Answer Type (LA)	4	3	12
2.	Short Answer Type (SA)	2	3	09
3.	Short Answer Type (SA-II)	3	12	24
4.	Very Short Answer (VSA)	1	20	20
	Total			**65**

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

Sr. No.	Form of Questions	Approx. time for each question in mins. (t)	Number of questions (n)	Approx. time for each form question in mins. (n x t)
1.	Long Answer Type (LA)	12	3	36
2.	Short Answer Type (SA)	08	3	24
3.	Short Answer Type (SA-II)	04	12	48
4.	Very Short Answer (VSA)	02	20	40

As the total time is calculated on the basis of numbers 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.

4. Scheme of option:
   There will be no overall choice. However there may be internal choice in sub questions in 2 sub questions of 4 marks category and 1 sub question of 3 marks category.

5. Weightage to difficulty level of questions:

Sr. No.	Estimated difficulty level of question	Marks	Percentage
1.	Easy	13	20%
2.	Average	39	60%
3.	Difficult	13	20%
	Total	**65**	

A question may vary in difficulty level from individual. As such, the assessment in respect of each question will be made by 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 weightage, rather than to determine the pattern of marking at any stage.

6. Number of main questions:
   There will be 5 main questions of 13 marks each.

SECOND MID TERM EXAM

DESIGN OF QUESTION PAPER

CLASS:- IX **SUBJECT:- SCIENCE**

TIME:-1 HOUR **MAX.MARKS:- 20**

The weightage or the distribution of marks over different dimension of the question paper shall be as follows.

1. Weightage to learning outcomes:

Sr.No.	Learning outcomes	Marks	Percentage of marks
1.	Knowledge	05	25%
2.	Understanding	08	40%
3.	Application	05	25%
4.	Skill	02	10%
	Total	**20**	**100%**

2. Weightage to content / subject units:

Sr.No.	Units	CHAPTER NO.	Marks
1.	ATOMS AND MOLECULES	3	06
2.	WORK AND ENERGY	11	06
3.	WHY DO WE FALL ILL	13	05
4.	NATURAL RESOURCES	14	03
	TOTAL		**20**

3. Weightage to forms of questions:

Sr. No.	Form of Questions	Marks for Each question	Number Of question	Total Marks
1.	Long Answer Type (LA)	4	1	4
2.	Short Answer Type (SA)	2	3	6
3.	Short Answer Type (SA-II)	3	2	6
4.	Very Short Answer (VSA)	1	4	4
	Total			**20**

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

Sr. No.	Form of Questions	Approx. time for each question in mins. (t)	Number of questions (n)	Approx. time for each form question in mins. (n x t)
1.	Long Answer Type (LA)	12	1	12
2.	Short Answer Type (SA)	06	3	18
3.	Short Answer Type (SA-II)	09	2	18
4.	Very Short Answer (VSA)	03	4	12
	Total			**60**

As the total time is calculated on the basis of numbers 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.

4. Scheme of option:
5. Weightage to difficulty level of questions:

Sr. No.	Estimated difficulty level of question	Marks	Percentage
1.	Easy	04	20%
2.	Average	12	60%
3.	Difficult	04	20%
	Total	**20**	

A question may vary in difficulty level from individual. As such, the assessment in respect of each question will be made by 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 weightage, rather than to determine the pattern of marking at any stage.

6. Number of main questions:
   2 questions of 10 marks each.

SECONDTERMINAL EXAMINATION

DESIGN OF QUESTION PAPER

CLASS:- IX **SUBJECT:- SCIENCE**

TIME:-2 1/2 HOURS **MAX.MARKS:- 65**

The weightage or the distribution of marks over different dimension of the question paper shall be as follows.

1. Weightage to learning outcomes:

Sr.No.	Learning outcomes	Marks	Percentage of marks
1.	Knowledge	17	25%
2.	Understanding	26	40%
3.	Application	16	25%
4.	Skill	06	10%
	Total	**65**	**100%**

2. Weightage to content / subject units:

Sr.No.	Units	CHAPTER NO.	Marks
1.	ATOMS AND MOLECULES	3	07
2.	STRUCTURE OF ATOM	4	08
3.	DIVERSITY IN LIVING ORGANISMS	7	10
4.	WORK AND ENERGY	11	07
5.	SOUND	12	09
6.	WHY DO WE FALL ILL	13	07
7.	NATURAL RESOURCES	14	04
8.	IS MATTER AROUND US PURE	04	04
9.	TISSUES	06	05
10.	FORCE AND LAWS OF MOTION	09	04
	TOTAL		**65**

3. Weightage to forms of questions:

Sr. No.	Form of Questions	Marks for Each question	Number Of question	Total Marks
1.	Long Answer Type (LA)	4	3	12
2.	Short Answer Type (SA)	2	3	09
3.	Short Answer Type (SA-II)	3	12	24
4.	Very Short Answer (VSA)	1	20	20
	Total			**65**

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3.	Short Answer Type (SA-II)	04	12	48
4.	Very Short Answer (VSA)	02	20	40

As the total time is calculated on the basis of numbers 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.

4. Scheme of option:

   There will be no overall choice. However there may be internal choice in sub questions in 2 sub questions of 4 marks category and 1 sub question of 3 marks category.

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6. Number of main questions:

   There will be 5main questions of 13 marks each out of which 1 question will be on core content.