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# HOME SCIENCE

**N-216**

**Chapter wise Reference Book  
Including Many Solved Sample Papers**

*Based on*

**N.I.O.S. Class – X**  
National Institute of Open Schooling

*By : Taruna Jain*



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*Based on: NATIONAL INSTITUTE OF OPEN SCHOOLING – X*

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**Sample Preview  
of the  
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# Solved Sample Paper - 1

Based on NIOS (National Institute of Open Schooling)

## Home Science - X

Time : 3 Hours

Maximum Marks : 100

- Note :* (i) All questions are compulsory.  
(ii) Marks are indicated against each question.

**Q. 1. Which vitamin is required for good vision?**

- (a) Vitamin A (b) Vitamin C  
(c) Vitamin E (d) Vitamin K

Ans. (a) Vitamin A.

**Q. 2. In which cooking method dry heat is not used ?**

- (a) Baking (b) Roasting  
(c) Simmering (d) Grilling

Ans. (c) Simmering.

**Q. 3. Which of the following disease is spread by insects ?**

- (a) Diarrhoea (b) Dengue  
(c) Hepatitis (d) Cholera

Ans. (b) Dengue.

**Q. 4. Which fabric does not wrinkle easily ?**

- (a) Linen (b) Silk  
(c) Rayon (d) Cotton

Ans. (b) Silk.

**Q. 5. What can be made in the space below the stairs ?**

- (a) Kitchen (b) Toilet  
(c) Bedroom (d) Living room

Ans. (b) Toilet.

**Q. 6. Which one is an inflexible activity ?**

- (a) Ironing clothes (b) Washing clothes  
(c) Doing Prayer (d) Cooking food

Ans. (a) Ironing clothes.

**Q. 7. What is a baby referred to inside a mother's womb ?**

- (a) Zygote (b) Ovum  
(c) Foetus (d) Sperm

Ans. (c) Foetus.

**Q. 8. Which of the following is a fine motor skill?**

- (a) Writing with pencil  
(b) Jumping rope  
(c) Walking independently  
(d) Catching ball

Ans. (a) Writing with pencil.

**Q. 9. Mention any four areas of Home Science.**

Ans. There are five major components of home science which are as follows:

- Food and Nutrition
- Resource Management
- Fabric and Apparel Science
- Human Development
- Communication and Extension

**Q. 10. Give four reasons to include water in the meals.**

- Ans. 1. Water helps in breakdown of food.  
2. Water helps in dissolving vitamins, minerals and nutrients from the food.  
3. Water helps in softening of food which also softens stool.  
4. Adding water helps in absorbing nutrients.

**Q. 11. Mention any four daily activities that can keep us healthy.**

- Ans. 1. Exercise  
2. Walking  
3. Eating balanced diet  
4. Yoga.

**Q. 12. Differentiate between natural immunity and Acquired immunity.**

Ans. Ref.: See Chapter-7, Page No. 51, Q. No. 3.

**Q. 13. Mention the purpose of giving chemical finishes and mechanical finishes.**

Ans. Ref.: See Chapter-11, Page No. 78, Q. No. 3.

**Q. 14. What do you understand by Gray fabrics? Mention two more features of such fabrics.**

Ans. Ref.: See Chapter-11, Page No. 77, Q. No. 2.

**Q. 15. Your younger brother has cut his hand. What four precautions should be adopted to prevent such incidents in future ?**

**Ans. 1.** Keep the sharp objects away from his reach.

2. Supervise when using sharp objects.

3. Keep the sharp tools in locked storage.

4. Keep knives, forks and scissors in a drawer with safety watch.

**Q. 16. List any four rules of First aid.**

**Ans. Ref.:** See Chapter-13, Page No. 95, Q. No. 12.

**Q. 17. Give two reasons to evaluate any plan.**

**Ans. Ref.:** See Chapter-14, Page No. 103, Q. No. 4 (Terminal Exercise).

**Q. 18. Suggest four ways to use resources efficiently.**

**Ans. Ref.:** See Chapter-14, Page No. 99, Q. No. 1 and 2 (Intext Questions 14.3).

**Q. 19. What is the average height and weight of an Indian child at the time of birth and at one year ?**

**Ans.** New born : Weight - between 5 to 11 pound. Height - between 9 and 21 inches.

One Year : Weight : 19 to 21 pound. Height 27 to 31 inches.

**Q. 20. Mrs. Sharma's daughter-in-law is pregnant. Which four important things should she keep in mind to ensure a healthy baby ?**

**Ans. 1.** Take nutritious diet

2. Take proper rest

3. Do mild exercises

4. Walk regularly.

**Q. 21. Which is better discipline Style-Autocratic or Democratic ? Why ?**

**Ans.** Autocratic parents have been found to have the most effective parenting style in all sorts of ways: academic, social, emotional and behavioural. This is because like authoritarian parents, the authoritative parents expect a lot from their children, but also they expect even more from their own behaviour.

**Q. 22. Suggest two ways you can show respect to your elders.**

**Ans. Ref.:** See Chapter-19, Page No. 141, Q. No. 14.

**Q. 23. Positive attitude can help us improve our relationship. Explain this statement with the help of an example.**

**Ans.** Everyone encounters conflict in their close relationships, but if you have a positive attitude towards life and love then you're much more likely to think constructively when faced with adversity. We usually want healthy relationships, both in friendships and dating. Knowing this, we seek out people who we can build healthy, positive relationships with. But a study by a prominent psychologist reveals the means for people to create healthy relationships.

**Q. 24. Explain three reasons for food spoilage.**

**Ans.** There are mainly three types of causes of food spoilage viz. biological, chemical and physical causes. Biological causes comprise of growth and activity of microorganisms such as bacteria, yeast and moulds; activity of food enzymes and damage due to pests, insects and rodents, etc. Chemical causes include reaction with oxygen and light and chemical reactions

within food constituents. Physical causes consist of temperature and physical abuse.

**Q. 25. Suggest six ways to control water pollution.**

**Ans. Ref.:** See Chapter-6, Page No. 45, Q. No. 6.

**Q. 26. What are regenerated and synthetic fibres ? Give one example of each.**

**Ans. Ref.:** See Chapter-10, Page No. 73, Q. No. 13.

**Q. 27. Suggest six different ways to make a home more comfortable and functional.**

**Ans. Ref.:** See Chapter-12, Page No. 87, Q. No. 3.

**Q. 28. Rekha's mother gets tired very quickly. Suggest three ways to conserve her energy.**

**Ans. 1.** Break the task into smaller tasks.

2. Take a break at regular intervals.

3. Make use of electrical appliances.

**Q. 29. Write any four functions of Proteins.**

**Name two cheap sources of proteins and the two diseases caused by its deficiency.**

**Ans. Ref.:** See Chapter-2, Page No. 15, Q. No. 7 and Page No. 16, Q. No. 8.

**Also Add:** The diseases are Kwashiorkor and Marasmus.

**Q. 30. Which six precautions should you adopt while frying food ? Name any two Indian dishes prepared by this method.**

**Ans.** Precautions while frying food.

• Use a large, wide, sturdy pan.

• Make sure you have a well-fitting lid close to hand in case the oil catches fire.

• Check the temperature of your oil.

• Never put wet food in the fryer.

• Never leave a pan of hot oil unattended; it can take just a minute or two for the oil to overheat and catch fire.

• If you are frying in a skillet or pot, use a metal slotted spoon or tongs to take the food out of the oil.

The Two dishes are: Pakora and Puri.

**Q. 31. What is the incubation period of Jaundice? Write four symptoms and three ways to take care of a patient suffering from this disease.**

**Ans.** There is significant evidence of an incubation period ranging from 2 to 4 weeks with a mode and mean of 3.2 weeks, a standard deviation of  $\pm 0.72$ , and a co-efficient of variation of 22.5 per cent.

**Symptoms:**

• Fever.

• Chills.

• Abdominal pain.

• Flu-like symptoms.

**Taking care:**

1. Drink at least eight glasses of fluids per day.

2. Consider adding milk thistle to your routine.

3. Opt for fruits like papaya and mango, which are rich in digestive enzymes.

**Q. 32. What eight precautions should be adopted while washing and storing a new coloured cotton Kurta ?**

# Sample Preview of The Chapter

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# HOME SCIENCE

Based on: NATIONAL INSTITUTE OF OPEN SCHOOLING - X

MODULE-1

HOME SCIENCE IN DAILY LIFE

1

## WHAT IS HOME SCIENCE ?

### SUMMARY

Home Science, or the science of a home, includes all the things that concern the person, home, family members and resources. It is the education for “better living” and the core of this education is the family ecosystem. It also deals with reciprocal relations between the family and its natural and man made environments. It aims at getting maximum satisfaction for the person and their family members through the efficient use of your resources. It gives the person all the knowledge of the scientific procedures involved in making a home beautiful.

The development of Home Science education reflects social pressures that are evident around the turn of the century. It is a need-based, professionally oriented education to assist family and community towards improved living. In the context of growing pressures in the work environment and external world, the family assumes a significant role in shaping the citizens of tomorrow. The family is the main factor which protects the individuals from all external forces and provides the right type of atmosphere for children to grow into strong and independent personalities.

The discipline of home science covers the following areas:

1. Human Development and Family Studies
2. Extension and Communication Management

3. Foods and Nutrition
4. Resource Management and Consumer Sciences
5. Apparel and Textiles

Home Science is both an art and science that deals with various aspects of house keeping. It is not just restricted to food or nutrition, but also covers hygiene, economics, child development, sociology, family relations, community living, clothing, textiles, dietetics and house keeping. A person opting for a career in this field needs to have a logical mind along with realistic approach and a balanced attitude.

There are five major components of home science which are as follows:

- Food and Nutrition
- Resource Management
- Fabric and Apparel Science
- Human Development
- Communication and Extension

The Home Science graduates have many different job opportunities. They can be placed in hotels, textile business, resorts, etc. A few career profiles for these candidates are sales jobs, production jobs, research jobs, service jobs, technical jobs, teaching jobs, etc. They have various specializations like textiles, cooking, promotion of food products, fashion designing, research scientists, manufacturing industries, house keeping, etc. These



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graduates can also pursue some short term courses like Diploma in Nutrition, Diploma in Home Science, Certificate Course in Food Science and Dietetics, etc. There are many higher study options for B.Sc Home Science candidates. They are PhD in Home Science, PG Diploma in Home Science, M.Sc in Home Science, etc.

**INTEXT QUESTIONS 1.1**

**Q. 1. Select the correct alternative from those given below.**

(i) Home Science means \_\_\_\_\_.

(a) learning to build interpersonal communication

(b) the art of managing your resources

(c) developing a skill to start an enterprise

(d) all of the above

Ans. (d) all of the above.

**(ii) Which of the following is not a specialization area in Home Science?**

(a) Food Science

(b) Garment Designing

(c) Nursing

(d) Interior Decoration

Ans. (c) Nursing.

**Q. 2. List any four ways by which Home Science can help you.**

Ans. 1. Home Science is helpful in resources efficiency as it gives maximum satisfaction for us and our family members through the efficient and scientific use of our resources.

2. Home Science help in making the things beautiful around us as we learn how to manage the things around us in well mannered form.

Ans.

Science Specialization	Employment Opportunity
(i) Food and Nutrition-Catering	Training of service staff or staff in canteen or restaurant
(ii) Resource management and Designing	Interior decoration and furniture designer-staff in retail outlets and staff in a production house
(iii) Clothing and Textiles at a boutique	Dress/Textile designing-staff at textile designing unit or
(iv) Human Development of children	Social Welfare-Day-care or school after care for young
(v) Communication and Extension	Researcher-As an organization communication consultant

3. Home Science helps us to lead a happy and healthy life.

4. Home Science help us in providing various successful career opportunities.

**INTEXT QUESTIONS 1.2**

**Q. 1. Give any four examples of home-based self-employment opportunities in the area of Home Science.**

Ans. Following are some of the examples of home based self-employment opportunities in the area of home science:

**1. Catering**–This includes food services from home.

**2. Interior decoration and furniture designer**–This includes conducting hobby classes or courses from home.

**3. Dress or textile designing**–This includes home based services or conducting hobby classes from home.

**4. Teaching**–This includes conducting tuitions at home or short term courses in the areas of Home Science courses.

**Q. 2. List any one wage-employment opportunity in the five specialization areas of Home Science.**

Specialization	Employment Opportunity
(i) Food and Nutrition	
(ii) Resource management and Designing	
(iii) Clothing and Textiles	
(iv) Human Development	
(v) Communication and Extension	

**Q. 3. Classify the following either as wage-employment (WE) or as self-employment (SE). Tick mark the option you choose.**

- (i) Pre-school teacher
- (ii) Owner of a home accessories showroom
- (iii) Production unit staff
- (iv) Consultancy service provider
- (v) Research Assistants
- (vi) Conducting hobby classes
- (vii) Owner of a boutique
- (viii) Guest House manager
- (ix) School teacher
- (x) Development Consultant

**Ans.**

- (i) Pre-school teacher (WE)
- (ii) Owner of a home accessories showroom (SE)
- (iii) Production unit staff (WE)
- (iv) Consultancy service provider (SE)
- (v) Research Assistants (WE)
- (vi) Conducting hobby classes (SE)
- (vii) Owner of a boutique (SE)
- (viii) Guest House manager (WE)
- (ix) School teacher (WE)
- (x) Development Consultant (SE)

**ACTIVITY 1.1**

State the art and science in following activities you perform at home. The first two have been done for you:

Activity	Art	Science
to have a bath	feel fresh and clean	<ul style="list-style-type: none"> <li>• dirt and germs are removed from your body</li> <li>• pores on skin get open</li> <li>• select right food</li> <li>• use of correct method of cooking to preserve nutrients</li> <li>• enhance nutritive value of food.</li> </ul>
prepare breakfast	serve attractively	
wash clothes		
clean the house		
make grocery purchases		
use household appliances		
caring for children		

**Ans.**

Activity	Art	Science
to have a bath	feel fresh and clean	<ul style="list-style-type: none"> <li>• dirt and germs are removed from your body</li> <li>• pores on skin get open</li> <li>• select right food</li> <li>• use of correct method of cooking to preserve nutrients</li> <li>• enhance nutritive value of food.</li> </ul>
prepare breakfast	serve attractively	
wash clothes	washed in organized way	
		<ul style="list-style-type: none"> <li>• separate the clothes according to their type</li> <li>• use the right method and detergent retain the originality i.e., texture, colour, softness of the clothes</li> </ul>

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clean the house	should look attractive	<ul style="list-style-type: none"> <li>• should be dirt and germ free disinfectant is used to keep flies and mosquitoes away</li> <li>• should be fresh, economical should fulfil the needs of family members</li> <li>• saves time</li> <li>• saves energy</li> <li>• optimum utilization</li> <li>• make them responsible and caring grown ups understand their rights and duties learn hygiene and discipline in life</li> </ul>
make grocery purchases	do it effectively	
use household appliances	do it efficiently	
caring for children	doing in right manner	

**ACTIVITY 1.2**

Do you agree with the following statements? Give reasons for your opinion?

Situations	Agree/ Disagree	Reasons
Only a mother can look after a sick child	Disagree	Anyone with a caring attitude can look after a sick child. Gender does not play any role. Male doctors take equally good care of patients as female doctors do.
Purchasing of electronic appliances items should be preferably done by men		
Washing, ironing, folding and keeping away the weekly laundry is best handled by women		
Money is best managed by men		

Ans.

Situations	Agree/ Disagree	Reasons
Only a mother can look after a sick child	Disagree	Anyone with a caring attitude can look after a sick child. Gender does not play any role. Male doctors take equally good care of patients as female doctors do.
Purchasing of electronic appliances items should be preferably done by men	Disagree	Women at home makes use of household appliances more than men so they need to understand its usage and the product they want in order to meet their requirements
Washing, ironing, folding and keeping away the weekly laundry is best handled by Women	Disagree	Anyone who is taking care of the household activities can do the job