

NEERAJ®

HOME SCIENCE

N-321

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

Based on

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

By : A Panel of Educationists



**NEERAJ
PUBLICATIONS**

(Publishers of Educational Books)

Mob.: 8510009872, 8510009878 E-mail: info@neerajbooks.com

Website: www.neerajbooks.com

MRP ₹ 350/-

CONTENTS

HOME SCIENCE

Based on: **NATIONAL INSTITUTE OF OPEN SCHOOLING - XII**

<i>S.No.</i>	<i>Chapters</i>	<i>Page</i>
	Solved Sample Paper - 1	1-4
	Solved Sample Paper - 2	1-5
	Solved Sample Paper - 3	1-4
	Solved Sample Paper - 4	1-4
	Solved Sample Paper - 5	1-4
THE ART AND SCIENCE OF MANAGING HOME		
1.	Home, Family and Home Science	1
2.	Ethics in Daily Living	7
3.	Family, Health and Security	12
FOOD AND NUTRITION		
4.	Food, Nutrition and Health	rs anSelec20
5.	Meal Planning	28
6.	Nutritional Status	41
7.	Purchase and Storage of Food	46

<i>S.No.</i>	<i>Chapter</i>	<i>Page</i>
8.	Preparation of Food	52
9.	Food Preservation	59
RESOURCE MANAGEMENT		
10.	Family Resource Management	65
11.	Time and Energy Management	76
12.	Space Management	82
13.	Income Management	86
14.	Energy Conservation	95
15.	Environment Management	102
16.	Household Equipment	111
17.	Consumer Education	116
HUMAN DEVELOPMENT		
18.	Growth and Development (0-5 Years)	125
19.	Growth and Development (6-11 Years)	136
20.	Adolescence	143
21.	Concerns and Issues in Human Development	151

<i>S.No.</i>	<i>Chapter</i>	<i>Page</i>
TEXTILES AND CLOTHING		
22.	Introduction to Fabric Science	161
23.	Yarn and its Construction	167
24.	Fabric Construction	170
25.	Textile Finishes	173
26.	Selection of Textiles and Clothing	177
27.	Care and Maintenance	184
OPTIONAL MODULE-I HOUSE-KEEPING		
28A.	Introduction to House-keeping	193
29A.	Cleaning and Cleaning Materials	197
30A.	Maintenance of Premises	203
31A.	Aesthetics at Home	209
OPTIONAL MODULE-II CREATIVE HAND EMBROIDERY		
28B.	Creative Hand Embroidery	213
29B.	The Design	215
30B.	Colour	220
31B.	Embroidery Stitches	225
■ ■		

**Sample Preview
of the
Solved
Sample Question
Papers**

Published by:



**NEERAJ
PUBLICATIONS**

www.neerajbooks.com

Solved Sample Papers - 1

Based on NIOS (National Institute of Open Schooling)

Home Science - XII

Time : 3 Hours

Maximum Marks : 100

- Note :** (i) This Question Paper consists of two Sections, viz., 'A' and 'B'.
 (ii) All questions from Section 'A' are to be attempted.
 (iii) Section 'B' has two options. Candidates are required to attempt questions from one option only.
 (iv) Draw neat, clean and labelled diagrams wherever necessary.

SECTION-A

Q. 1. What do you understand by a nuclear family?

Ans. Ref.: See Chapter-3, Page No. 18, Q. No. 6 (2. Nuclear Family).

Q. 2. On the basis of which two indicators would you declare that your friend has sound mental health?

Ans. Mental health includes our emotional, psychological and social well-being.

Q. 3. Mention any two symptoms of syphilis.

Ans. Syphilis and gonorrhoea are examples of STDs. They are caused by bacteria and spread through sexual contact with an infected person. Symptoms of gonorrhoea occur in about 2-5 days whereas syphilis becomes evident in 10-90 days.

Symptoms

- Fever and sores appear on the skin, in the throat and genital area; specially vagina or penis, anus, rectum and in the mouth.
- Rashes on hands, feet and palms.

Ans.

Q. 4. Three-year old Rinku has started bed-wetting after her younger brother was born. In what two ways can her parents help her get rid of this problem?

Ans. Ways can her parents to help her get rid of this problem:

- Expect accidental bed-wetting.
- Help and encourage the child to become confident.

Q. 5. Name a macronutrient and a micro-nutrient which help in the clotting of blood.

Ans. Ref.: See Chapter-4, Page No. 22, Q. No. 1 (Terminal Question).

Q. 6. List any four community services available in your neighbourhood.

Ans. It can be a community service that makes life better for some or all community members – public transportation, early childhood education center, community recycling facilities, cultural organization.

Q. 7. In what two ways each burning test can help you identify cotton and wool fibres?

Table : Burning Test of Fibres

Name	Approaching Flame	In Flame From Flame	Removed	Odour	Residue
(a) Natural Cellulose fibre-cotton, Linen	Does not shrink away and catches fire on contact.	Burns quickly.	Continues burning, shows an afterglow.	Like burning paper	Light, feathery, gray in colour
Protein Fibre-wool	Curles away from the flame	Burns slowly.	Stops burning after removing from flame	Like burning hair	Small black bead, brittle, curshable.
Silk	-do-	Burns slowly and sputters in flame.	-do-	-do-	Bead-like black, crush-able

Q. 8. Classify the following finishes into two categories :

- (a) Dyeing
- (b) Scouring
- (c) Bleaching
- (d) Mercerization

Ans. Routine Finishes: Scouring and Bleaching
Special Finishes: Dyeing and Mercerization.

Q. 9. What four precautions should you take while storing your woollens for a long time?

Ans. A few precautions in order to save our expensive clothes:

1. Empty out pockets and brush the garments thoroughly in order to free them from dust.
2. Always sun and air the garments which have been worn before storing.
3. Do not let garments become too dirty before laundering or dry cleaning.
4. Do not store any damp clothes as moisture causes mildew. You must have seen that clothes have changed colour when taken out from closets and this is the reason for it.

Q. 10. Give four suggestions to make a blind child become independent.

Ans. With your love, care, help and encouragement, physically disabled children can develop skills as early and as well as other children. Some of the ways to help them are presented here:

1. Encourage the blind child to use the remaining sight and other senses. How will you teach about shapes to a four-year-old child? Yes, by using the sense of touch.
2. Help the blind child to use a stick while walking. Why do they need it? It helps them in finding the way and makes them more confident.
3. Encourage disabled children to make use of substitutes for missing body parts. Can you name some such substitutes? These are braces, splints, artificial limbs, etc. From where can one get them? These are given free of cost or at a very nominal rate in government hospitals.
4. After learning to deal with the disability it is better to let the child be with normal children.

Q. 11. Write four reasons to teach ethics and values to youth.

Ans. Reasons to teach ethics and values to youth as follows:

1. Introduce youth to faulty rationalization
2. Expose youth to opposing view-points
3. Allow youth to develop critical thinking skills
4. Prepare Youth for success post-graduation.

Q. 12. Why is it important to provide additional proteins and calcium to a pregnant woman?

Ans. The need of calories, proteins, calcium, iron, vitamin A and vitamin C are increased for the healthy

growth and development of foetus. Also, you should give her more of water and fibre, as she may suffer from the problem of constipation. But since she is not able to eat much at a time, you should give her small frequent meals. Keeping all these points in mind the menu has to be modified.

The calorie requirement of pregnant lady is 13% less than that of an adult man and can be done by reducing the quantity of cereals in her menu as compared to the reference menu. Her protein requirement is slightly higher, which can be compensated by giving her more of protein rich foods. The frequency of meals should be also increased, as compared to the sample menu.

Q. 13. Suggest four ways to save your energy while working in the kitchen.

Ans. During the day, we all do different types of activities which require different amount of energy:

- (i) Heavy activities like running, jogging and mopping requires large amount of energy.
- (ii) Moderate activities like sweeping, ironing and cooking require average amount of energy.
- (iii) Light activities like reading, watching T.V. and listening to music need very little energy.

Q. 14. Outline the steps of preparing an orange squash.

Ans. Ref.: See Chapter-9, Page No. 63, Q. No. 15.

Q. 15. Your sister has given birth to a baby girl on 1.1.2017. To guide your sister, prepare an immunization schedule for her first year.

Ans. Ref.: See Chapter-18, Page No. 128, Q. No. 6.

Q. 16. Mention four characteristics of sixteen-year old girls.

Ans. Four characteristics of sixteen-year-old girls as follows:

Moodiness: At this age, they experience mood swings. In morning they are cheerful and suddenly depressed. To a certain extent, hormonal changes are responsible for their moodiness besides school pressure, conflicts with friends, family, etc.

Rebellious attitude: Adolescence is period of storm and stress. They share a love-hate relationship with parents, friend and relative.

Identity Crisis: This is the time when adolescents begin to explore; assert their identities. They have an unstable sense of self and engage in the process of searching their social; sexual identity.

Adolescents want space: Parents want control on adolescents whereas children want space and rebel against any restrictions imposed on them

Q. 17. State two points each you will keep in mind when selecting clothes for the following :

- (a) A long bus journey
- (b) A marriage occasion
- (c) A working adult
- (d) An old man

Sample Preview of The Chapter

Published by:



**NEERAJ
PUBLICATIONS**

www.neerajbooks.com

HOME SCIENCE

THE ART AND SCIENCE OF MANAGING HOME



Home Family and Home Science

INTEXT QUESTIONS 1.1

Q. I. Fill in the appropriate word in the blank space:

- (a) A place where we reside _____
- (b) One who discharges household responsibilities _____
- (c) Subject that promotes healthier and happier living _____
- (d) Earning salary by working for someone or in some organisation _____
- (e) Small scale innovative business for making a profit _____

Ans. (a) home (b) home maker (c) home science (d) wage employment (e) entrepreneurship.

Q. II. Tick (✓) mark the correct answer. Give a reason to justify your answer.

(i) Home Science caters to the needs of daily living of

- (a) boys only (b) girls only
- (c) both boys and girls (d) the society

Because

Ans. (i) (c) both boys and girls.

Because these days Boys and Girls have to share their responsibilities for the livelihood for the family.

(ii) Home Science applies knowledge for well-being of individuals by drawing principles from

- (a) science alone (b) arts alone
- (c) sometimes science and sometimes arts
- (d) both science and arts

Ans. (ii) (d) both science and arts.

INTEXT QUESTIONS 1.2

Q. I. List any three misconceptions about Home Science.

Ans.

- (i) Home Science only teaches cooking, stitching, home decoration and child care.
- (ii) Home Science is meant for girls because they have to manage the home in later life.
- (iii) Home Science does not offer attractive job opportunities.

Q. II. Write any two scope(s) for each area of Home Science.

Ans.

- (i) *Food and Nutrition*—Meal nutrition and health and care of sick.
- (ii) *Resource Management*—Consumer education work ethics.
- (iii) *Human Development*—Development in early and middle childhood, special issues in human development.
- (iv) *Textile and clothing* – Fabric science and its construction. Textile finishes.

INTEXT QUESTIONS 1.3

Following are some examples of wage employment in Home Science. You can change each of the wage employment situations to self-employment:

2 / NEERAJ : HOME SCIENCE (N.O.S.-XII)

Wage Employment

- (a) Employee of nursery school
- (b) Staff in a government emporium
- (c) Manager of catering services
- (d) Cook at a canteen
- (e) Employee of savings and investment schemes
- (f) Conducting cookery classes at an institute
- (g) Working with a supplier of home based food services
- (h) Caretaker in a guest house
- (i) Sales person.

Ans. Self-employment

- (a) Opening our own nursery school
- (b) Owner of a gift shop
- (c) Starting our own catering service
- (d) Running our own canteen
- (e) Agent of saving and investment schemes
- (f) Starting our own cooking classes
- (g) Supplying home based food items
- (h) Running our own guest house
- (i) Opening our own boutique.

INTEXT QUESTIONS 1.4

Re-arrange the jumbled words:

- 1. KBRAE LREEHP
- 2. EGTUS VESCEIR KECRL
- 3. MOOROWHS TAASNSTIS
- 4. EALSS EERVEIPT RAETSN
- 5. DEERL REAC RROKEW
- 6. RTCEE HA EIAD
- 7. CIR BAF REOSTTAIM
- 8. ORIBD MEREER

Ans. 1. BAKER HELPER

- 2. GUEST SERVICE CLERK
- 3. SHOWROOM ASSISTANT
- 4. SALES REPRESENTATIVE
- 5. ELDER CARE WORKER
- 6. TEACHER AIDE
- 7. FABRIC ESTIMATOR
- 8. EMBROIDERER.

TERMINAL QUESTIONS

Q. 1. Explain the importance of Home Science being studied as a subject by both girls and boys.

Ans. Importance of Home Science—Home Science gives knowledge for facing new challenges, to cope with the following:

- (i) Knowledge explosion,
- (ii) Technological advancements,

(iii) New developments, and

(iv) Growing needs of individuals for successful living in society. Home science trains us to face with confidence, the challenge of changing times in order to attain some uses, satisfaction and harmonious living.

Advantages of Home Science

1. Importance for Individuals: Home science gives us scientific knowledge. It develops skill for efficient performance of household responsibilities. Skill means the process of applying theory based knowledge into our daily life. Some examples of skills are as under:

- (i) To counter social pressures to adopt unhealthy eating practices by refusal.
- (ii) To seek services for help with sexual issues.
- (iii) Development of positive skill leads us towards happiness and satisfaction. It prepares us to take up wage as self-employment to earn livelihood.

2. Importance for Home and Family Life

- (i) Home science lays emphasis to strengthen home and family life by making an optimal use of available resources.
- (ii) It helps us to apply knowledge of different sciences for improving home and family environment, health, growth and development of individuals besides managing our household resources.

(iii) It deals with the following:

- (a) Food,
- (b) Clothing,
- (c) Shelter,
- (d) Health,
- (e) Human relationships,
- (f) Household resources, and
- (g) Concerns of individuals existing within a home and in a family.

Home Science contributes to the overall enrichment of family with a view to help in the development of community and nation at large.

3. Importance for Economic Stability: Various areas of Home Science prepare us for various jobs. We can ensure the economic stability of the family by undertaking a job or self-employment. This will contribute towards raising the living standard of the family and quality of life.

Q. 2. How will you explain to your neighbour that Home Science is more than studying about cooking, sewing, cleaning and raising children?

Ans. Scope of Home Science

Misconception: Home Science only teaches cooking, stitching, home decoration and child care.

Fact: Undoubtedly food, shelter and clothing are the basic needs of daily life. Home Science includes these aspects and tries to build scientific knowledge. For example, our aim to eat food is not only to satisfy our hunger but to meet the nutritional requirements of our body.

It does as under:

- (i) Contributes to promoting growth and development,
- (ii) Provides energy for doing various activities, and
- (iii) Regulate various body functions.

This is learnt in one of the areas of Home Science.

The aspect of cooking taught in Home Science deals with principles and methods of cooking, for preventing loss of nutrients and adding variety, balance and nourishment in the diet. Thus, notwithstanding Home Science teaches cooking it is based on the science and art of cooking.

In the same way, there can be great number of examples to support the relationship of science and art. We find that the principles of science are deeply rooted in Home Science.

In Home Science we study about the following:

- (i) Clothing,
- (ii) Grooming,
- (iii) Personality development,
- (iv) Personal and environmental hygiene,
- (v) Management of resources like time, money and energy, care of children and elders.

When we study Home Science we will get help to build scientific temperament with a view to apply it in daily life. In this way Home Science caters to betterment of mankind and improves homemaking skills.

Q. 3. “Home Science is meant for girls only”.

Comment.

Ans. Home Science for Girls and Boys:

Misconception: Home Science is meant for girls because they have to manage the home in later life.

Fact 1. These days the nuclear family structure has the following features.

2. The men and the women have to share responsibilities.

3. The number of wage earning homemakers are gradually increasing which implies that there is pressure of dual responsibility on women. The women combines her homemaking responsibilities with generating

income for the family. Under such conditions it is necessary that the men should share the work load of women. Home Science orients and prepares both men and women to deal with various aspects of life. Hence, it is wrong to say that Home Science is meant for girls alone. We must bear in our mind that Home Science is beneficial for boys also.

Q. 4. Discuss four skills in each area of Home Science that you use in your daily life.

Ans. Skills in Home Science: Home Science claims to be a composite subject dealing with daily life situations, it consists of those areas that are related to our life. Home Science has five different areas. However, at school level only four areas are taught. Each area of Home Science along with its sub-components is as under:

Table

Area	Sub-components
Food and Nutrition	(i) food; (ii) nutrition; (iii) meal planning; (iv) nutritional status; (v) health and care of sick; (vi) purchase and storage of food; (vii) food preservation.
Resource Management	(i) consumer education; (ii) work ethics; (iii) income management; (iv) saving and investments; (v) work and space organisation; (vi) time and energy management; (vii) conservation of energy, and (viii) environment management.
Human Development	(i) development in early and middle childhood; (ii) adolescence; (iii) special issues in human development.

Note: At college level one more area, extension education, is taught as a subject.

TABLE

Q. 5. Suggest opportunities for wage and self-employment in each area of Home Science.

Ans.

Scope	Skill Building for Daily Living
<p>I. Area:Resource, Management</p> <ol style="list-style-type: none"> 1. To become a consumer conscious individual. 2. To manage family income and expenditure wisely. 3. To recognise the need for saving money and making investments. 4. To adopt work simplification measures for overcoming fatigue and managing time and energy. 5. To recognise the mutual relationship between space organisation and aesthetics. 6. To utilise and conserve energy sources around us optimally. 7. To develop eco-friendly consciousness. 8. To develop aptitude for work ethics and ethical standards in daily living. <p>II. Human Development</p> <ol style="list-style-type: none"> 1. To recognise various aspects of development from early to late childhood. 2. To understand adolescents: <ol style="list-style-type: none"> (i) physical changes, (ii) developmental tasks, (iii) characteristics and (iv) problems. 3. Be sensitised towards special issues in human development. <p>III. Fabric Science</p> <ol style="list-style-type: none"> 1. To select fabric for different end uses wisely. 2. To get acquainted with: <ol style="list-style-type: none"> (i) Various textile finishes and (ii) Using simple techniques for fabric enrichment. 3. To select and maintain clothing and textiles wisely. <p>IV. Food and Nutrition</p> <ol style="list-style-type: none"> 1. To recognise the interrelationship of food, nutrition and health. 2. To plan and prepare balanced meal as per nutritional requirements. 3. To plan and prepare therapeutic meals for the sick. 	<ol style="list-style-type: none"> 1. Skill to recognise the rights and responsibilities of a wise consumer. 2. Skill to use consumer aids while purchasing goods or using services. 3. Consciousness building regarding consumer protection laws. 4. Aptitude for managing expenditure within the available income. 5. Proficiency in saving money. 6. Skill to take maximum benefit of saving and investment schemes. 7. Skill in making a time plan and using work simplification methods for saving energy. 8. To be an expert in space organisation for performing various household activities. 9. Skill in using renewable and non-renewable sources of energy at home. 10. Skill to prevent environment degradation and use ecofriendly products and practices. <ol style="list-style-type: none"> 1. To Appreciate the value of code of ethics. 2. Skill in caring for the child as per physical, motor, social, emotional, language and cognitive development. 3. Aptitude for facilitating the sound development of adolescents. 4. Efficiency in managing and caring for people with special needs. <ol style="list-style-type: none"> 1. To be expert in identification and selection of fabric appropriate to end use. 2. Skill in using textile finishes for fabric enrichment. 3. To be capable of buying clothing and textiles by judging quality and labels. 4. Ability in laundering and storage of clothes. 5. Ability to protect the health of the family by providing nutritionally rich food. 6. Skill in preparing balanced meals to suit the nutritional requirements of individuals. 7. Skill in meal planning as per signs and symptoms of nutritional status and deficiency diseases. 8. Ability for modifying diet for sick persons and nutrition related health problems. 9. To be an expert in assessing nutritional status and recognizing signs and symptoms of common nutritional deficiency diseases. 10. Skill of using appropriate storage and food preservation methods.