

## ICSE Paper 2019 Home Science

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### General Instructions:

- Answers to this Paper must be written on the paper provided separately.
  - You will not be allowed to write during the first 15 minutes.
  - This time is to be spent in reading the question paper.
  - The time given at the head of this Paper is the time allowed for writing the answers.
  - Attempt all questions from Section A and any four questions from Section B.
  - The intended marks for questions or parts of questions are given in brackets [ ].
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### Section – A [40 Marks]

Attempt all questions from this Section

#### Question 1.

(a) What is the difference between related and contrasting colour schemes? [2]

#### Answer:

- Related colour schemes: These are composed of one or several neighbouring hues which generally provide an effect of unity and harmony. These schemes are based on hues that are far apart on the colour wheel.
- Contrasting colour schemes: In this the arrangement is made by using complementary colours.

(b) State the utility of local lighting. [2]

#### Answer:

Local lighting: In this extra fixtures are often placed in task areas and the necessary illuminance depends on the character of the task that is being performed. It is designed to provide a relatively high level of illumination over a small area, with a surrounding area of lower intensity.

(c) Mention two sources of light commonly used in the house. [2]

#### Answer:

Sources of light: Two major sources of light are as follow :

1. Natural light or Sunlight.

2. Artificial light.

- Natural light's main source is sun and the light of sun varies with climate. Most commonly day light is admitted through windows.
- Artificial light includes candle, Lantern and ofcourse electricity. In our homes incandescent bulbs and fluorescent tubes are sources of artificial light.

(d) Which kind of materials should be used for kitchen counters? [2]

**Answer:**

- The materials used in the kitchen counters should be heat resistant.
- Should be resistant to acid.
- Should be easy to clean.

(e) What is meant by 'crossing of a cheque'? [2]

**Answer:**

Crossing of a cheque: It is a process of drawing two parallel lines on a cheque with or without certain words. It's main purpose is to protect the drawer against loss by theft or forgery. Crossing of a cheque also ensures that payment is made to the authorised person only.

**Question 2.**

(a) State any two differences between growth and development. [2]

**Answer:**

Growth	Development
<ul style="list-style-type: none"><li>• Growth is measurable.</li><li>• It stops after a certain age.</li></ul>	<ul style="list-style-type: none"><li>• Development is not measurable. It can be felt and observed only.</li><li>• It continues till death.</li></ul>

• Growth and development are related to each other. When a body grows in size, there is an increase in his capacity to do work. But sometimes development takes place without growth. e.g., if the physical growth is stunted, the person may have better mental, social and other developments.

(b) Define 'cognitive development'. [2]

**Answer:**

Cognitive development: It is basically the development of the brain of a child. It

develops the ability of the brain to think and find answer or we can say solution of problems. This type of development is very necessary for the child.

(c) Name the male and female sex hormones secreted during adolescence. [2]

**Answer:**

Male sex hormone is Testosterone.

Female sex hormones are Oestrogen and Progesterone.

(d) What do we mean by 'binge eating disorder' ? [2]

**Answer:**

Binge eating disorder: This disorder is also known as obesity. When we consume large amount of food specially fats we feel out of control and becomes powerless. This disorder generally happened in early childhood or late adolescence.

(e) State any two characteristics of a balanced diet. [2]

**Answer:**

Characteristics of a balanced diet:

1. A proper balanced diet provides us complete nutrients which our body needs for proper growth and development.
2. If we take a proper balanced diet, it prevents us from so many diseases. Some diseases are happened just due to the deficiency of nutrients.

**Question 3.**

(a) Explain the term 'shelf life' of food products. [2]

**Answer:**

Shelf life of food products : It is the time period during which the food product will remain safe, retain desired flavour, remain fresh or it can retains an acceptable quality from a safety point.

Or

It is the length of time that a commodity may be stored without becoming unfit for use, consumption or sale.

(b) Name the sweat glands present in the human body. [2]

**Answer:**

Sweat glands: These are a type of exocrine glands that produce and secrete substances. These are found throughout the skin.

In human body, Eccrine and Apocrine glands are two types of glands. Eccrine sweat glands are distributed all over the human body. While Apocrine sweat glands are mostly limited to the axilla (armpits) and perianal areas in humans.

(c) State the difference between perishable and non-perishable food. [2]

**Answer:**

- Perishable food: Food which cannot be stored for more than 2-3 days under normal temperature conditions such as fish, milk, milk products etc.
- Non-perishable food: Food which can be stored for a long time, such as cereals, sugar, coffee, salt etc.

(d) Why should cotton clothes be starched ? [2]

**Answer:**

Starching process makes the fabric stiffen and it gives a feel which make it attractive. It also helps to keep clothes clean and fresh for a longer time.

Starch adds crispness and structure, providing body to cotton and linen items. It also creates a higher resistance to wrinkling and soiling. Using starch will also ease ironing. Durable synthetics can be "starched," but cannot be treated with grocery spray starch.

(e) Define Optical brighteners. [2]

**Answer:**

Optical brighteners are generally used for white clothes. Because white clothes gradually lose their whiteness with regular use. Sometime white clothes turns yellow. Optical brightener basically are the agents which are colourless dyes, they attached themselves with the clothes

**Question 4.**

(a) Define the term 'Food adulteration'. [2]

**Answer:**

Food adulteration : To get the extra margin of profit the traders reduce the quantity of the pure goods and add the similar goods in it which is cheap and of low quality. This removal of quality product and addition of the low quality good is known as food adulteration. It is done mainly by intentionally.

(b) State two advantages of consumer education. [2]

**Answer:**

Advantages of consumer education :

1. It helps the consumer to develop the ability to decide and choose things intelligently.
2. It helps him to always demand safe, reliable and good quality products at a reasonable price.
3. To make consumer alert, well informed and vigilant against corrupt practices in the market.
4. To make suitable action when faced with a problem.

(c) State any two primary functions of a bank. [2]

**Answer:**

Functions of a bank: Bank is an institution which accepts deposits from the public and in return advances loans by creating credit. Banks perform so many functions and provide varieties of services to the society. Following are the functions :

1. It receives deposits from the public for the purpose of making investments and granting loans.
2. The bank also lends out the money which it gets from the deposits of the public.
3. Bank also grant loans for a specific time period.

(d) What do you mean by a current account? [2]

**Answer:**

Current account: An account in which money may be deposited and withdrawn at any time is called current account. Generally, it is operated by the Business houses. Under this account, the depositor can withdraw money by cheque at any time during the working hours of the bank. There are no restrictions to limit the number of withdrawals but minimum credit balance has to be maintained as per the rules of the bank. The bank does not pay any interest on such deposits.

(e) Name any two standardization marks. [2]

**Answer:**

Two standardization marks are ISI and Agmark.

### **Section – B [60 Marks]**

Attempt any four questions from this Section

**Question 5.**

Interior decoration expresses the personality of a home maker. In the above context discuss the following .

(a) Five types of kitchens. [5]

**Answer:**

Types of Kitchens : Generally kitchens have two styles : one is – Indian Type or Sitting Kitchen and the second one is – Foreign or Standing Kitchen.

Indian Style Kitchen or Sitting Kitchen : These type of kitchens are generally used in the villages of India. In such types of kitchens, the cooking of food, serving of food, cleaning of utensils etc., are carried out in sitting positions. Here, racks and Almira's are of low height.

**Types of Foreign Kitchen or Standing Type Kitchen :**

1. Strip kitchen
2. Two wall kitchen
3. L-shaped kitchen
4. U-shaped kitchen

1. Strip kitchen: Generally found in the small houses where there is a little space for a kitchen. It is one wall with the components placed in a row fashion.

2. Two wall kitchen: This is more workable kitchen. It resembles with the strip kitchen, the difference between both is that it is on both sides of the wall, facing each other.

3. L-shaped kitchen: This type is known as a good type of kitchen. This leaves two wall empty for windows and doors. The free comers can be utilised for keeping storage or dining area.

4. U-shaped kitchen: This type of kitchen provides good continuous space for working whereas in the U-shape the continuity is broken up.

(b) Light and colour used in decorating a living room. [5]

**Answer:**

In a living room or family room we should use general lighting for entering and watching television, task lighting for reading and accent lighting to highlight, art work. B right light over the front and rear entrances are necessary.

Colours change as light change. Artificial light softens colours. Colours that appear attractive under light might not be pleasing in the day light.

(c) Factors affecting the selection of carpets for a room. [5]

**Answer:**

Factors affecting the selection of carpets for a room :

- Size of the carpet-strip or broad loom.
- Colour according to furnishing used- large room dark and in small room the colour should blend with the wall to show space.
- Plain or patterned depending on upholstery.
- Care and maintenance needed.
- Durability.
- Stain proof.
- Cost depending on budget.

**Question 6.**

'Budgeting helps in efficient management of money.' In this context explain :

(a) Steps in making a budget. [5]

**Answer:**

Steps in preparing budget: For making budget a success, we should include some steps. These steps include fundamental decisions which make budgeting a complicated procedure, but gives a realistic picture of the entire planning for the family's money resources and planned expenditures.

Following are the steps for preparing budget:

- List commodities and sendees required by family members throughout the proposed budget period.
- Estimate the cost of desired items.
- Estimate total expected income.
- Bring expected income and expenditures into balance.
- Check plans to see that they have a reasonable chance of success and possibilities of saving for future.

(b) Importance of a saving account. [5]

**Answer:**

Importance of a Saving Account: A Saving Account is one of the most popular bank

accounts that a person can invest in. It is the account that can be used for many different purposes.

1. **Safe avenue for funds:** The funds kept in a Saving Account stay there unless they are withdrawn or paid out. Another point to be considered is that Saving Accounts are insured up to 1 lakh by the Deposit Insurance and Credit Guarantee Corporation (DICGC).
2. **Provides special value added services:** Many banks nowadays provide value added services and benefits with a Savings Account. Many banks provide some basic form of accident or medical insurance, foreign travel insurance, and other types of insurance covers for opening the bank account.
3. **Place to collect funds and make payments:** A Saving Account is an excellent place to collect funds from different sources.
4. **Income generating account:** Unlike a current account, a savings bank earns interest. The balance earned in a Saving Account helps to improve the individual's income.
5. **Can help to plan your child's financial future:** By opening a Kids Saving Account, you can help your child understand the basics of how to operate a bank account. These valuable financial lessons can help your child manage their finances and learn the value of money.

(c) Operating a savings bank account. [5]

**Answer:**

**Operating the Bank Account:** Operation of the bank account means depositing the money into it or withdrawing from it through cheques, withdrawal forms or ATM machines. As soon as the bank agrees to open the account, it will supply the following books to its account holder.

1. Paying-in-slip Book
2. Cheque Book
3. Pass Book
4. ATM Card.

1. **Paying-in-slip Book:** This book contains a number of printed slips with perforated counterfoils. This slip is used while depositing cash or cheque in the bank. The depositor fills in all the particulars, e.g., the name of the customer, account number, date, amount in words and figures, and hands over this slip to the cashier along with cash or cheque. The cashier checks the details and counts the money. He then puts the stamp on the paying-in-slip and the counterfoil and initials them.



2. **Cheque Book:** This book contains a number of printed blank cheque forms (usually ten or more) with their counterfoils serially numbered. The holder of a current account or savings account can withdraw money' through cheque.

3. **Pass Book :** Along with a cheque book and the paying-in-slip book, the depositor is issued a Pass Book. The Pass Book is a copy (with details of transactions) of the Customer's account in the bank's Ledger as on a particular date. It shows credit for deposits and debit for withdrawals, and the balance.

4. **ATM Card :** It is a plastic smart card with a chip that contains a unique card number and some security information. Using an ATM, customers can access their bank accounts in order to make cash withdrawals and check their account balances.

### **Question 7.**

'Changes occurring during adolescent years are dramatic'. In this context discuss :

(a) The pubertal changes seen during adolescence. [5]

#### **Answer:**

The onset of puberty brings many physical changes in adolescence. The hormonal changes stimulate the growth in size and shape, the development of secondary sex characters and the feeling of nature sexuality. The timing of such changes varies among the individuals.

**Here are some changes occurs during adolescence :**

#### **In Boys:**

- Change in voice.
- Appearance of hair on face, armpit and genital areas.
- Development of muscles.
- Increase in height.
- Skin becomes oily.
- Opposite sex desire.
- Broadening of shoulders.

#### **In Girls:**

- Enlargement of breasts.
- Broadening of hips.
- Skin becomes oily.
- Appearance of hair on armpit and genital areas.
- Beginning of menstruation.

- Opposite sex desire.

(b) Impact of early maturation in girls. [5]

**Answer:**

Impact of early maturation in girls: The age at which most girls get their periods has become younger. But more dramatic changes have occurred in the younger ages at which girls enter puberty and start to develop physiological changes like developing of breast, broadening of hips etc.

Girls who experience puberty earlier than their peers are at risk for mental health problems as teenagers because there's such a mismatch between how they look and their emotional and cognitive maturity. More recent studies show that early maturation among girls may place them at a higher risk for anxiety, depression, early sexual exploration, dys functional responses to stress and problems in school early maturing girls may experience more difficulties because of the pressure. They feel in relation to male one are more likely to become involved in deviant activities such as drug or alcohol abuse.

(c) Emotional concerns of the adolescent. [5]

**Answer:**

Emotional concerns of the adolescent: Adolescents usually have number of emotional problems. They must learn to control and express emotions in socially approved manners. Further, they should develop the ability to be free from emotional involvements in various situations as much as possible. When someone criticizes adolescents they are easily hurt. They should learn to accept criticism without being hurt.

If the emotions cannot be controlled they lead some major problems.

Following are few emotional problems :

- Eating disorder – fear of becoming overweight.
- Feelings of helplessness and low self-esteem.
- Jealously.
- Experiment with sex and drugs, (drug abuse)
- Loneliness.
- Social acceptance: If we neglect a child, the child feel frustrated, dejected and neglected. This is the major problem for the adolescent.

**Question 8.**

'Meal planning helps to achieve nutritional adequacy.' In this context explain :

(a) Classification of fruits and vegetables into their subgroups and their nutritional contribution. [5]

**Answer:**

**Group IV. 'Fruits and Vegetables'**

1. **Fruits:** Fruits like ripe mangoes, papaya and peaches are particularly rich in carotene. Oranges and all other citrus fruits are rich source of Vitamin C. Fresh fruit juice is known for healthy teeth and gums, healing wounds and clean complexion. Indian gooseberry (Amla) and Guava are very rich sources of Vitamin C. They are also cheapest among the fruits. Bananas are rich sources of carbohydrates. Fruits provide fruit sugar lactose. They also provide roughage necessary for regulation of the body processes. Fruits like apple and plums contain high amounts of pectin and are used for making jams and jellies. Apples, bananas and grapes are poor sources of Vitamin C.
2. **Vegetables:** Vegetables vary in appearance, taste, flavour and nutrient content. Different vegetables grow in different climatic conditions. Green leafy vegetables are rich in Calcium, Iron and Vitamin A. Because of high fibre content they are known to have mild laxative effect. Root vegetables are rich in carbohydrates and carotene content. Vegetables eaten as salads are also rich in Vitamin C.

<b>Fruits and Vegetables</b>	<b>Nutrients Supplied</b>
<b>Fruits :</b> Mango, Guava, Tomato, Papaya, Orange, Sweet lime, Watermelon	Carotenoids, Vitamin-C, Fibre
<b>Vegetables (Green Leafy)</b> Amaranth, Spinach, Gogu, Drumstick leaves, Coriander leaves, Mustard leaves, Fenugreek leaves	Invisible Fats, Carotenoids, Vitamin-B <sub>2</sub> , Folic Acid, Calcium, Iron, Fibre
<b>Other Vegetables :</b> Carrots, Brinjal, Lady finger, Capsicum, Beans, Onion, Drumstick, Potatoes, Cauliflower	Carotenoids, Folic Acid, Calcium, Fibre

(b) Importance of a balanced diet. [5]

**Answer:**

Importance of a balanced diet: A healthy diet is one that helps to maintain or improve the general health. It is important for lowering many chronic health risks such as obesity, heart diseases, diabetes, hypertension and cancer. As we know, a healthy diet

involves consuming appropriate amount of essential nutrients and an adequate amount of water.

**A balanced diet has a major role in achieving long healthy life :**

- It helps in controlling body weight (obesity), heart rate and BP (Blood Pressure).
- It also increases in exercise capacity and muscle performance.
- It improves blood sugar level, lower harmful cholesterol and triglycerides and also increases the HDL cholesterol.
- It produces mental and physical relaxation.

(c) Advantages and disadvantages of using convenient foods. [5]

**Answer:**

Advantages and disadvantages of using convenient foods: Convenient food is the another category of food in which the food may be semi-processed and then stored. This increases their shelf-life and ease of preparation.

**Advantages of convenience foods:**

- Preparation time is reduced to a great extent.
- No storing, buying or planning of ingredients.
- Can hardly get any leftovers. .
- Could have a variety of items especially for inexperienced cooks.
- Faster presentation and easy cleaning up.
- Less spoilage and waste occur with packaged convenience foods.
- Transportation of packaged foods is cheaper especially in concentrated form.
- Cost efficient for mass production and distribution.

**Disadvantages of convenience foods :**

- May be less meat, fish, or cheese than you would include in homemade versions.
- Cooking time is sometimes increased for thawing or longer baking time.
- Harder to control fat, salt and sugar levels.
- Cost per serving may be higher than homemade.
- Convenience foods are typically high in calories, fat, saturated fat, sugar, salt, and trans fats.
- They tend to lack freshness in fruits and vegetables.

**Question 9.**

'Proper information about the purchase, storage and preservation of food is essential.'

In the above context discuss :

(a) Storage of milk to maintain its quality. [5]

**Answer:**

Storage of milk : Milk comes under the category of perishable foods. Perishable foods are those food items requiring refrigeration and special handling. For storage of milk to maintain its quality we should do the following things :

- Select milk according to quality needed, i.e., Toned Milk and Full Cream Milk.
- Check colour and taste of milk. Generally milk has slightly sweet taste, stale milk has sour taste and an unpleasant smell.
- Boil milk should be kept in a cool place. If there is no refrigerator, boil milk after every 5-6 hours to keep it free from germs.
- Never mix old milk with fresh milk.
- Keep away from strong smelling foods, e.g., onions, guava etc. as it easily absorbs the smell.

(b) Use of salt in food preservation. [5]

**Answer:**

Use of salt in food preservations: Salt is perhaps most well known as a food preservative and flavouring agent. It has been used to preserve food for many thousands of years and is the most common seasoning. The reason why salt is such an effective preservative is that it draws moisture out of food.

Dry foods are less likely to spoil as moisture is a key requirement for organisms that want to spoil the food. But salt also plays other, lesser-known roles in the food we eat as an essential nutrient, providing flavour and texture, and enhancing colour. For these reasons, salt is used in food production, which is why the sodium content of processed foods is so high.

Salt has been used as a preservative for ages, and works to preserve food in two ways :

- Salt dries food: Salt draws water out of food and dehydrates it. All living things require water and cannot grow in the absence of water, including the bacteria which can cause food poisoning. Salt is used to preserve beef jerky by keeping it dry, and it prevents butter from spoiling by drawing water out, leaving just the fat.
- Salt kills microbes: In very high salt solutions, many microbes will rupture due to the difference in pressure between the outside and inside of the organism. High salt can also be toxic to internal processes of microbes, affecting DNA and enzymes. Solutions high in sugar also have the same effects on microbes, which is why it is used as a preservative of foods such as jams and jellies.

(c) Need for consumer education to make wise purchases. [5]

**Answer:**

Need for consumer education: Consumer education means to educate the consumers as to what, how much, where, when and how to buy and how to use what they have bought. It develops critical awareness and living skills which are oriented towards building a better future for all. Consumer education assists the buyer in wise selection of goods to meet family requirements.

As we know, today's market is a complex system because it is flooded with a variety of products that may confuse the buyer as to what they should buy. As they have limited knowledge, everyone can confuse them easily. Therefore, there is a need for consumer education.

**An educate consumer can :**

1. Develop the ability to decide and choose things intelligently.
2. Always demand safe, reliable and good quality products at a reasonable price.
3. Take suitable action when faced with a problem.

At times even an experienced consumer find it difficult to select the best option. The right selection provides immense satisfaction. However, while selecting if certain considerations are kept in mind, one can be assured the purchase of right kind of commodity. The consumer education programme should be aimed at developing an awareness about consumer rights and responsibilities consumer choice and product evaluation.

**Question 10.**

Explain the following:

(a) Steps and precautions involved in the household method of laundering coloured cotton. [5]

**Answer:**

Steps and precautions involved in the household methods of laundering coloured cotton: Cotton is available in the low-cost range also. Its maintenance is costly, as it has to be repeatedly washed and finished. As we know cotton clothes catch the soil or dirt very easily so such clothes require frequent laundering.

**Steps:**

1. Preparation: Preparation is the first step of laundering process. In this we examine the garments for tears, holes, stains or foreign particles.

2. Steeping: In steeping, firstly sort out white and coloured cotton garments. The white cotton clothes can be kept soaking overnight, if these are very dirty. If less dirty, they can be soaked for an hour.

For coloured garments, soaking should be avoided. If required, they should be soaked in tap water for not more than 15 minutes to half an hour.

3. Washing: As we know, cotton clothes are strong fabrics and become more stronger when wet. When these are very much dirty, they should be washed with scrubbing on board. Friction or rubbing or scrubbing methods clean them quickly.
4. Rinsing: Cotton clothes should be rinse two or three times in clean, tap water. It is very important.
5. Starching and Blueing: These two process should always be performed equally at the same time as it saves time. These are carried to clean the clothes, and make them smooth and bright.
6. Drying: Drying varies depending upon the type of cloth. As shirts and kurtas should be dried on hangers, trousers are hung folded on the clothes line, salwar and pajamas should be spread full width and sarees, bed sheets should be hung after straightening their edges.
7. Ironing: As we are talking about cotton clothes, these should be ironed when damp. If they become fully dry, sprinkle water on them to moisten to get good results of ironing. For starched clothes, it is preferable to iron them when still damp.

Extra tips for cotton garments:

- When it comes to bleach, avoid using more than the recommended amount with cotton, as it can damage the fibers of your favourites. If your garment has had a finish applied to it, then avoid using bleach altogether.
- Because cotton items tend to wrinkle and shrink easily, they are usually combined with other fibers. Because of this mix, no cotton garment is created equal so check the fabric care instructions on the tags before washing.
- Cotton is a durable, soft fiber, and most clothes today are made from it. Unfortunately, it does have one serious drawback: It tends to shrink when washed and dried.

(b) Importance of labels on a packed product. [5]

**Answer:**

Importance of labels on packed products: A label is expected to provide information about the product. It assists consumer in making a wise selection of the commodity.

Inadequate or incomplete information may be provided in the label to mislead the consumer. Products with inadequate labelling should not be purchased. It is the duty of the consumer to read the labels carefully and satisfy before purchase.

Following are the information printed on a label:

- Name of Product
- Trade mark Standardization
- Marks Manufacture and Expiry Date
- Licence Number
- Maximum Retail Price (MRP)
- Net weight of the content
- Brand Name
- Manufacture's Name and Address
- Ingredients
- Batch Number
- Warning, if any
- Direction of use/storage

(c) Fixed Deposit Account and its features. [5]

**Answer:**

Fixed Deposit Account: Fixed deposits are investment instruments offered by banks and non-banking financial companies, where you can deposit money for a higher rate of interest than savings accounts. We can deposit a lump sum of money in fixed deposits for a specific period, ranging from 7 days to 10 years.

Once the money is invested with a reliable financier, it starts earning an interest based on the duration of the deposit. Usually, the defining criteria for FD is that the money cannot be withdrawn before maturity, but you may withdraw them after paying a penalty.

**Features of Fixed Deposits :**

- Fixed deposits enable investors to earn higher interest on their surplus funds.
- You can deposit money in a fixed deposit account only once, but to deposit more money, you need to create another account.
- Though liquidity in fixed deposits is lesser, you can look for higher rates of interests, which are higher in case of company fixed deposits.
- Fixed deposits can be easily renewed.
- Tax is deducted at source, from interest on Fixed Deposits as applicable, as per the Income Tax Act, 1961.