

## ISC Class 12 Home Science Specimen Paper 1

Written by the Future Topper subject team on the CISCE examination pattern. Not an official CISCE paper.  
Found a mistake? Write to [contactfuturetopper@gmail.com](mailto:contactfuturetopper@gmail.com)

---

**Maximum Marks: 70 | Time Allowed: Three hours | Reading Time: 15 minutes**

Section A is compulsory. From Section B attempt any five questions. This paper carries 70 marks, the remaining 30 being for the practical work.

---

### General Instructions

Write your answers on the separate answer paper provided. The first 15 minutes are for reading the paper, and you may not write during that time. Section A is compulsory and must be attempted in full. From Section B you must attempt any five of the eight questions, and no credit is given for a sixth. Marks for each question, or part of a question, are shown in brackets. Answers should be in your own words and of a length suited to the marks offered, a one-mark part needing no more than a sentence and a four-mark part needing a short developed answer. Illustrate general statements with household examples wherever you can. No printed figures, charts or photographs are supplied with this paper, and where a question asks for a stitch, a weave, a layout or a diagram you are expected to draw it yourself in pencil and label it. Questions on food and nutrition are to be answered in terms of food groups and general principles, and you are not asked anywhere in this paper to work out quantities for a named person. This paper carries 70 of the 100 marks for the subject, the remaining 30 being for the practical work.

### SECTION A (20 Marks)

Attempt all parts of Question 1 and all parts of Question 2.

#### Question 1 [12]

Each part carries 1 mark. For the parts that offer four choices, write only the option you choose. For the rest, answer in a single sentence or give the single word, name or term asked for.

- (i) The period of life in which the adolescent growth spurt and the attainment of reproductive maturity both take place is:  
(a) infancy    (b) early childhood  
(c) adolescence    (d) late adulthood
- (ii) Name the stage of the family life cycle that begins when the last of the children has left the parental home.
- (iii) The vitamin whose absorption from a meal depends upon some fat being present in that meal is:  
(a) vitamin C    (b) vitamin A  
(c) thiamine    (d) folic acid
- (iv) Name the treatment in which milk is heated to a set temperature, held there briefly and then cooled quickly, so that disease causing organisms are destroyed without the flavour being spoilt.
- (v) The household resource that reaches every family in the same fixed amount each day and cannot be stored for later use is:  
(a) money    (b) skill  
(c) kitchen equipment    (d) time
- (vi) State in one sentence what is meant by a deficit budget.
- (vii) The weave that shows a clear diagonal rib on the face of the cloth, and which is used for denim and gaberdine, is the:  
(a) twill weave    (b) plain weave  
(c) satin weave    (d) pile weave

- (viii) Name the class of textile fibres that is damaged by alkalis, so that garments made from it must be washed with a mild detergent.
- (ix) The medium best suited to carrying a short extension message to a large and widely scattered rural audience at the same moment is:
- (a) a flannel graph (b) a poster  
(c) a flip chart (d) radio
- (x) Name the stage of the adoption process at which a person puts the new practice to work on a small scale before taking it up altogether.
- (xi) The consumer right which entitles a buyer to know the quality, the quantity, the purity, the standard and the price of what is offered for sale is the right:
- (a) to safety (b) to information  
(c) to choose (d) to be heard
- (xii) Name the statutory authority in India that lays down and enforces standards for the safety of packaged food.

**Question 2 [8]**

*Each part carries 2 marks. Answer each part in two or three sentences.*

- (i) State two ways in which free play contributes to the development of a pre-school child. [2]
- (ii) State two advantages of steaming as a method of cooking food. [2]
- (iii) Distinguish between a fixed expense and a flexible expense in a household budget, giving one example of each. [2]
- (iv) State two things a buyer should look for on the label of a packaged food before paying for it. [2]

**SECTION B (50 Marks)**

*Attempt any five questions from this Section. Each question carries 10 marks.*

**Question 3 [10]**

- (a) Explain what is meant by a developmental task, and state two developmental tasks that belong to adolescence. [3]
- (b) Describe three ways in which a family can support an adolescent who is under strain in the months before a public examination. [3]
- (c) Explain what is meant by socialisation. Describe the part played by the family and the part played by the peer group in the socialisation of a growing child, and state one way in which the two may pull a child in opposite directions. [4]

**Question 4 [10]**

- (a) Distinguish between a nuclear family and a joint family, and state one advantage that each has over the other. [3]
- (b) Describe three changes that have come about in the place of older people in Indian families over the last few decades. [3]
- (c) Explain what is meant by the family life cycle. Name its main stages, and describe the chief demands made on the family's money, time and energy at any two of those stages. [4]

**Question 5 [10]**

- (a) Explain what is meant by a balanced diet, and name the food groups on which such a diet is built. [3]
- (b) Explain what is meant by meal planning, and state three factors that a person planning the family's meals should keep in mind. [3]

- (c) Describe, in terms of food groups and general principles only, the ways in which food needs alter during pregnancy. Explain why the actual plan for any one pregnant woman has to be drawn up for her by a qualified dietitian working with her doctor. [4]

**Question 6 [10]**

- (a) Explain what is meant by the nutritive value of a food, and state two ways in which careless cooking may reduce it. [3]
- (b) Describe three methods of preserving food in the home, stating the principle on which each of them works. [3]
- (c) Explain what is meant by food adulteration. Give two examples of adulterants together with the foods in which they are commonly found, and state two steps a household can take to guard itself against adulterated food. [4]

**Question 7 [10]**

- (a) Name the steps of home management in their proper order, and explain any one of them in a little detail. [3]
- (b) Explain what is meant by work simplification, and describe two ways of bringing it about in a household kitchen. [3]
- (c) Explain the purpose of a household budget. Describe the steps by which one is drawn up, and state two ways in which a family whose budget shows a deficit may bring it into balance. [4]

**Question 8 [10]**

- (a) Distinguish between a natural fibre and a manufactured fibre, naming two examples of each. [3]
- (b) Explain the difference between a woven fabric and a knitted fabric, and state one way in which that difference shows itself in the behaviour of a garment in wear. [3]
- (c) Explain what is meant by a finish applied to a fabric. Describe two finishes and the purpose of each, and state two things to look for on a care label before buying a garment. [4]

**Question 9 [10]**

- (a) Explain what is meant by extension education, and state two of its aims. [3]
- (b) Name the elements of the communication process, and explain how a message may break down at any two of them. [3]
- (c) Describe the stages through which a person passes before adopting a new practice. Explain, with one example drawn from village work, why a demonstration often carries an audience further than a lecture on the same subject. [4]

**Question 10 [10]**

- (a) Explain what is meant by community development, and state two features of a community development programme. [3]
- (b) Describe three difficulties a voluntary organisation is likely to meet when it takes up a social issue in a village. [3]
- (c) Explain what is meant by consumer protection. Name the rights of a consumer, describe the redress open to a consumer who has been sold a defective article, and state one responsibility that goes with those rights. [4]

## ANSWER KEY AND MARKING SCHEME

The answers printed here are models and not the only acceptable wording. Accept any answer that is accurate, relevant and expressed in the candidate's own words, and accept a correct household example in place of the one given. Marks shown in the marking lines are the step marks an examiner would award. In the questions on food and nutrition, no credit is to be given for an answer that sets out quantities, calorie figures or a meal by meal plan for a named person, since the syllabus asks only for food groups and general principles.

### Question 1 [12]

- (i) (c) adolescence. The spurt in height and weight and the maturing of the reproductive system both belong to this stage, which is why it is treated as the most rapid period of growth after infancy.
- (ii) The empty nest stage, also called the contracting or post-parental stage, in which the couple are left on their own again and the household shrinks.
- (iii) (b) vitamin A. It is a fat soluble vitamin, so some fat must be present in the meal for it to be carried across the wall of the intestine. Vitamin C, thiamine and folic acid are all water soluble.
- (iv) Pasteurisation.
- (v) (d) time. Every household receives twenty four hours in a day, no household can receive more, and an hour not used is gone and cannot be carried forward, which is why time is called the one resource that is equal and unstorable.
- (vi) A deficit budget is one in which the total of the planned expenditure comes to more than the income expected for the same period, so that the plan cannot be met without cutting spending, finding extra income or drawing on savings.
- (vii) (a) the twill weave. The filling yarn passes over two or more warp yarns and the point of interlacing moves along by one yarn in each row, which is what produces the diagonal line.
- (viii) The protein fibres, that is wool and silk, which are of animal origin.
- (ix) (d) radio. It reaches a scattered audience over a wide area at one moment, it costs the listener nothing beyond the set, and it does not require the listener to be able to read.
- (x) The trial stage, which follows interest and evaluation and comes before adoption.
- (xi) (b) to information. The buyer is entitled to be told the quality, quantity, purity, standard and price of the goods, so that the purchase is made with the facts in hand and not on the seller's word alone.
- (xii) The Food Safety and Standards Authority of India, usually written FSSAI.

*1 mark for each correct part. No mark is deducted for a wrong option, and a one-line answer that carries the correct idea gains the mark even if it is loosely worded.*

### Question 2 [8]

- (i) Free play develops the body, since running, climbing and lifting build large muscle strength, balance and coordination, while handling small objects builds the finer control of the hand. It also develops the child socially, since play with others teaches turn taking, sharing, the settling of small quarrels and the use of language to get what is wanted. Play of the make believe kind further develops imagination and gives the child a safe way of working through feelings that cannot yet be put into words.

*Any one developmental gain with its explanation 1. Any second developmental gain of a different kind 1.*

- (ii) Steaming cooks the food without its being in contact with the water, so the water soluble vitamins and the minerals are not drained away and the loss of nutritive value is small. It also needs no added fat, which makes it a light method of cooking and an easy one to digest, and the shape, colour and natural flavour of the food are better kept than in boiling.

*Nutrient retention because the food does not sit in the water 1. Any second advantage, such as no added fat, easy digestibility or better colour and flavour 1.*

- (iii) A fixed expense is one whose amount is settled in advance and does not alter from month to month, so the family has no choice about paying it. Rent, school fees and an insurance premium are examples. A flexible expense is one whose amount the family can raise or lower according to what is left, so it is the first place a budget is adjusted. Spending on entertainment, on clothing and on travel for pleasure are examples.

*Fixed expense defined with an example 1. Flexible expense defined with an example 1.*

- (iv) The buyer should look at the date of manufacture together with the date of expiry or the words best before, so that food past its life is not taken home. The buyer should also look for the mark of a standards authority, such as the FSSAI licence number or the Agmark grade on a graded commodity. Other things worth checking are the list of ingredients, the declared net weight, the name and address of the maker and whether the seal of the packet is unbroken.

*Date of expiry or best before date 1. Any second item, such as the standards mark, the ingredient list, the net weight or an unbroken seal 1.*

### Question 3 [10]

- (a) A developmental task is a piece of learning or adjustment that a person is expected to achieve at a particular stage of life, because the body is then ready for it and because the society around the person expects it at that age. Succeeding at the task brings approval and makes the next stage easier, while failing at it brings disapproval and leaves difficulty behind that has to be dealt with later. Two tasks that belong to adolescence are the acceptance of the changed body and of one's own appearance, and the growth of independence from the parents while the relationship with them is kept. Others that may be credited are the forming of settled friendships with both sexes, the choice of a line of study or work, and the working out of a set of values of one's own.

*Developmental task explained as learning expected at a given stage, with the readiness of the body and the expectation of society 1. First task of adolescence 1. Second task of adolescence 1.*

- (b) First, the family can keep the ordinary routine of the house steady, with meals, sleep and some daily exercise at their usual times, since a settled routine does more for a tired mind than any amount of advice. Second, the family can lower the pressure in the way it talks about the examination, by asking about the work rather than about the expected marks, by not holding up the results of cousins and neighbours for comparison and by making it clear that affection does not depend on the outcome. Third, the family can give the adolescent practical help of a quiet kind, such as a corner of the house where there is no interruption, relief from errands in the weeks before the papers and an ear when the adolescent wants to talk. Where the strain shows in loss of sleep, loss of appetite or withdrawal that does not lift, the family should seek help from the school counsellor or a doctor rather than wait for it to pass.

*Keeping routine, sleep and meals steady 1. Lowering the pressure in the way the examination is spoken about 1. Practical help, with the point about seeking help if the strain does not lift 1.*

- (c) Socialisation is the lifelong process by which a person learns the language, the habits, the values and the expected ways of behaving of the society into which he or she is born, so that the person can take a place in it. The family is the first agency and the strongest, because it acts earliest, because the child is wholly dependent on it and because the learning happens through daily living rather than through formal teaching. The family gives the child speech, the first ideas of right and wrong, the habits of eating, cleanliness and worship, and the first notion of what is expected of a son or a daughter. The peer group acts later and differently. It is a group of equals, which the family is not, so the child learns in it to bargain, to compete, to lead and to follow, to keep a confidence and to accept the judgement of people who have no authority over him. The two may pull in opposite directions when the peer group holds up a standard of dress, of speech, of spending or of conduct that the family disapproves of, and the adolescent, wanting the approval of both, is left having to choose between them.

*Socialisation defined as the learning of the ways of the society 1. The part of the family, with its earliness and the informal manner of the learning 1. The part of the peer group, with the point that it is a group of equals 1. One clear instance of conflict between the two 1.*

### Question 4 [10]

- (a) A nuclear family consists of a husband, a wife and their unmarried children living as one household, so it has two generations and one married couple in it. A joint family consists of two or more related married couples and their children living in one household, holding property in common, eating from one kitchen and taking decisions under a recognised head, so it has three generations or more. The advantage of the joint family is the support it gives its members, since children, the sick and the old are looked after within the household,

work and expenses are shared, and no member is left to face a crisis alone. The advantage of the nuclear family is the freedom and the privacy it allows, since the couple take their own decisions about money, the bringing up of the children and where to live, and it moves easily when work requires a move.

*Nuclear family defined 1. Joint family defined, with common property or a common kitchen 1. One advantage of each 1.*

- (b) First, the spread of the nuclear household and the movement of young people to the cities for work have left many older people living apart from their married children, sometimes alone, where once three generations shared a kitchen. Second, their authority within the family has weakened. Decisions about money, education and marriage are now taken largely by the earning couple, and the elder's word, which was once close to final, has become one opinion among several. Third, their role has shifted from authority to service in many homes, with grandparents keeping the house and caring for grandchildren while both parents are out at work, which gives them a real place but a different one. A fourth change worth crediting is that longer life and pensions have made some older people financially independent of their children, which has altered the balance between the generations.

*First change, such as separate residence following migration 1. Second change, the weakening of authority in family decisions 1. Third change, such as the shift to the care of grandchildren or financial independence 1.*

- (c) The family life cycle is the series of stages through which a family passes from its beginning to its end, each stage bringing its own tasks and making its own claims on the family's money, time and energy. The main stages are the beginning or newly married stage, the childbearing and expanding stage, the stage of the family with school going children, the stage of the family with adolescents, the launching stage as the children leave, the empty nest or contracting stage and the ageing stage. At the childbearing stage the claims are heavy on time and energy rather than on money, since an infant needs attention through the day and the night, and the housewife's or the couple's own rest and leisure are the first things given up, while income is still small because careers are young. At the stage of the family with adolescents the claims shift to money, since fees, coaching, travel and clothing all rise together, two or three children may be at expensive points in their education at the same time, and the family often has to begin saving for higher studies or for marriage while its own earning years are passing.

*Family life cycle defined as a series of stages each with its own tasks 1. The stages named in order 1. Demands at the first chosen stage 1. Demands at the second chosen stage 1.*

### Question 5 [10]

- (a) A balanced diet is one which supplies all the nutrients the body needs, in the proportions in which the body needs them, from a variety of ordinary foods, so that growth, repair, activity and resistance to illness are all provided for and a small margin is left over for lean days. No single food contains everything, so a balanced diet is built by drawing every day from each of the food groups rather than by eating more of a favourite food. The groups are the cereals, millets and their products, which are the main source of energy; the pulses, nuts and oilseeds, which supply protein of plant origin; milk and milk products together with eggs, fish and meat, which supply protein of high quality along with calcium and certain vitamins; the vegetables and fruits, with the green leafy vegetables set apart because they are so rich in iron, calcium and the carotenes; and the fats, oils and sugars, which carry energy in a concentrated form and are needed only in a small way.

*Balanced diet defined as all nutrients in the needed proportions from a variety of foods 1. The point that no one food supplies everything, so the groups must all be drawn upon 1. The food groups named with what each chiefly contributes 1.*

- (b) Meal planning is the working out in advance of what the family will eat at each meal over a day or a week, so that the meals together make up a balanced diet, suit the people who are to eat them, keep within the money available and can be cooked with the time, fuel and equipment the household has. Three factors to keep in mind are, first, the composition of the family, since a growing child, an adolescent, an expectant mother, an adult at heavy work and an elderly person at the same table do not all need the same thing, and the plan has to allow for every one of them. Second, the money available, since the plan is of no use if it cannot be paid for, and the planner should know which foods in each group are the cheapest sources of what that group contributes at that season. Third, the time, fuel and help available, since an elaborate dish on a working morning will not be cooked, and a plan that ignores the cook's day will be abandoned. Further factors worth

crediting are the season and the local availability of foods, variety in colour, texture and flavour so that the meal is eaten with appetite, the customs and the religious observances of the family, and the use made of leftovers.

*Meal planning defined as the planning of meals in advance to meet several requirements at once 1. First factor with its explanation 1. Second and third factors 1.*

- (c) During pregnancy the body is building a new life as well as maintaining itself, and it is also laying down a store for the feeding that will follow, so the need for nearly every nutrient rises while the need for bulk rises much less. In food group terms this means that the protein foods are drawn on more freely, milk and milk products among them, since protein is wanted for the growth of new tissue and milk brings calcium with it for the forming bones and teeth. The green leafy vegetables and other iron bearing foods become more important, since the mother's blood volume rises and the child lays down its own store of iron, and the folate carried by the same foods is wanted in the earliest weeks of all. Fruits and vegetables generally are taken in good measure, both for the vitamins and for the roughage and water that relieve the constipation common at this time. Small frequent meals are usually easier than two or three large ones, and plenty of fluid is advised. What cannot be done in a classroom, however, is to turn this into a plan for any particular woman. The needs of an individual depend on her weight and health before the pregnancy, on how far the pregnancy has gone, on whether she is carrying one child or more, on any condition such as anaemia, diabetes or raised blood pressure that she may have, and on what she is able to eat and digest. For that reason the actual plan, and any supplement that goes with it, must be worked out for her by a qualified dietitian in consultation with the doctor who is seeing her, and reviewed as the pregnancy goes on.

*Rising need for most nutrients, with protein and milk for new tissue and for calcium 1. Iron bearing foods, green leafy vegetables and folate 1. Fruits, vegetables, fluid and small frequent meals 1. The individual plan left to a qualified dietitian working with the doctor, with a reason why it must be individual 1.*

### Question 6 [10]

- (a) The nutritive value of a food is the extent to which that food supplies the nutrients the body needs, judged by the kinds of nutrient it contains, the amount of each and how far the body is able to absorb and use them. It is not the same as the appetite appeal of the food, and a food may be very pleasant and of little nutritive value. Careless cooking lowers it in several ways. Water soluble vitamins and minerals are lost when vegetables are cut small, washed after cutting, boiled in a large quantity of water and the water then thrown away. Vitamin C and the B group vitamins are destroyed by long cooking at a high temperature, by keeping food hot for hours before it is served and by the addition of cooking soda to pulses and green vegetables. A third way is the peeling and discarding of skins and the outer leaves, and the milling of cereals until the bran and germ are gone, since the nutrients lie close to the surface. A fourth is repeated reheating of the same food.

*Nutritive value defined in terms of the nutrients supplied and their availability to the body 1. First loss, such as leaching into cooking water that is discarded 1. Second loss, such as destruction by long or high heat, by soda or by the discarding of skins and bran 1.*

- (b) Drying, or dehydration, removes the water from the food, and since microorganisms cannot grow without water the food keeps. Vegetables dried in the sun, papads and milk powder are examples. Preservation with sugar or salt in a high concentration works by osmosis. The strong solution draws water out of any microbial cell that falls into it, so the cell cannot grow, which is the principle behind jam, murabba, pickle and salted fish. Preservation by low temperature slows the growth of microorganisms and the action of the food's own enzymes without killing either, so refrigeration buys days and freezing buys months, but neither sterilises the food and both only hold spoilage back. Other methods that may be credited are bottling and canning, where heat destroys the organisms and an airtight seal keeps new ones out; the use of acid, as in vinegar pickles, since most spoilage organisms cannot grow in an acid medium; and the use of permitted chemical preservatives in small declared amounts.

*First method named with its principle 1. Second method named with its principle 1. Third method named with its principle 1.*

- (c) Food adulteration is the addition to a food of any substance that lowers its quality, or the removal from it of something of value, or its replacement in whole or in part by a cheaper substance, whether this is done deliberately for gain or through carelessness in handling and storage. The effect is that the buyer pays for one

thing and receives another, and some adulterants are harmful in themselves. Examples are the mixing of khesari dal with other pulses and the colouring of turmeric powder with metanil yellow, a dye that is not permitted in food; the addition of chicory to ground coffee and of chalk powder, starch or water to milk; the mixing of argemone seed with mustard seed and of brick powder with chilli powder; and the stoning of grain with grit to add weight. A household can guard itself first by buying what it can of the staples in whole form rather than ground, so that the grain, the pulse and the spice can be seen, and by grinding at home or at a mill it trusts. Second, it should buy packaged food that carries the FSSAI licence number or the appropriate standards mark, from a shop that can be gone back to, and should keep the bill. Third, several simple tests can be done at home, such as dropping a little turmeric or chilli powder into a glass of water to see whether colour streams off, or rubbing a pinch of asafoetida between the fingers. Fourth, a household that suspects adulteration can complain to the food safety authority of the state, which has power to lift a sample and prosecute.

*Adulteration defined, covering addition, removal and substitution 1. Two adulterants named with the foods they are found in 1. First safeguard, such as buying whole staples or buying marked packaged goods from a traceable shop 1. Second safeguard, such as a simple home test or a complaint to the food safety authority 1.*

### Question 7 [10]

- (a) The steps of home management are planning, organising, implementing or controlling, and evaluating.

Planning is the first and the one on which the others depend. In it the homemaker fixes what is to be achieved, lists the jobs the goal breaks down into, decides the order in which they are to be done and by whom, and matches each of them against the money, the time, the energy, the equipment and the help that are actually available. A plan made on paper without that matching is a wish and not a plan. Good planning leaves a margin for the thing that goes wrong, settles the standard to which each job is to be done rather than leaving it to be decided in the middle, and is written down where more than one person has to act on it. Credit may equally be given for a sound account of organising, of controlling or of evaluating in place of planning.

*The four steps named in order 1. The chosen step explained as to what is done in it 1. A second point of substance about that step, such as matching the plan against the resources available or leaving a margin 1.*

- (b) Work simplification is the finding of an easier way of doing a household job, so that the same result is reached with less time, less movement of the body and less fatigue, without the standard of the work being lowered. It is not a matter of doing less work but of doing the same work with fewer and better movements. In the kitchen it is brought about first by arranging the place where the work is done, so that the storage, the water, the preparation surface and the stove stand in the order in which they are used, with the things needed oftenest within reach of the hand and at a height that does not require bending or stretching. Second, it is brought about by changing the hand and body motions used, for example by working with both hands at once, by letting the hands move in smooth curves instead of sharp angles, by sliding a vessel along the counter instead of lifting it and by assembling everything needed before a job is begun rather than fetching each item as it is wanted. Other ways worth crediting are the dovetailing of jobs so that waiting time is used, the use of a labour saving device where it earns its cost, and the preparation of part of a dish in advance.

*Work simplification defined as the same result with less time, motion and fatigue 1. First way, the arrangement of the work place in the sequence of use 1. Second way, the improvement of hand and body motions or the dovetailing of jobs 1.*

- (c) A household budget is a plan for the use of the family's expected income over a stated period, set down in advance, so that the family can see whether what it intends to spend can be met out of what it expects to receive, can give the first claim to the things that matter most to it, can provide for saving instead of hoping that something will be left, and can later compare what happened with what was intended. It is drawn up in steps. The family first lists the goals it has for the period and for the longer term. It then estimates the income it can count on, taking the certain income only. It then lists the items of expenditure, separating the fixed items it has no choice about from the flexible items it can alter, and sets down an amount against each, using the records of past months to make the estimate a real one rather than a guess. It next adds the totals and compares the expenditure with the income. If the two do not match, the plan is adjusted and the figures balanced. Finally the budget is put into effect, accounts are kept against it, and at the end of the period the actual spending is compared with the plan so that the next budget is a better one. Where the budget shows a

deficit, the family may cut the flexible items, beginning with the least important of them, by reducing spending on entertainment and travel for pleasure, by buying staples in season and in bulk, by substituting a cheaper food within the same food group and by making more things at home. Alternatively the family may raise its income, by taking paid work that a member can manage, by letting out a room or by putting an idle asset or skill to use. A third course, to be used with care, is to postpone a large purchase or spread it over time rather than cut the essentials, and a fourth is to draw on savings, which should be the last resort and only for a passing shortfall.

*The purpose of a budget explained, covering the matching of spending to income and the giving of first claim to what matters most 1. The steps of drawing one up, through goals, income, items of expenditure and comparison 1. The last steps, carrying out the budget and evaluating it against what actually happened 1. Two ways of removing a deficit, one by cutting flexible expenditure and one by raising income or deferring a large purchase 1.*

### Question 8 [10]

- (a) A natural fibre is one that occurs ready formed in nature, whether on a plant, on an animal or in a mineral, and has only to be gathered and cleaned before it is spun. Cotton and jute are natural fibres of plant origin and wool and silk are natural fibres of animal origin. A manufactured fibre is one made by a chemical process, the material being forced in a liquid state through the fine holes of a spinneret and hardened into a continuous filament. Nylon, polyester and acrylic are made entirely from chemicals and are called synthetic, while viscose rayon is made by treating natural cellulose from wood pulp and is called a regenerated fibre. The practical difference is that a natural fibre comes in staple lengths of a size fixed by nature and varies from crop to crop, whereas a manufactured fibre can be made to any length, thickness and cross section the maker chooses, and comes out uniform.

*Natural fibre defined as occurring ready formed in nature, with two examples 1. Manufactured fibre defined as made by a chemical process through a spinneret, with two examples 1. One sound point of difference, such as the uniformity and controlled length of the manufactured fibre 1.*

- (b) A woven fabric is made on a loom by interlacing two sets of yarns that cross each other at right angles, the warp running along the length of the cloth and the filling across it. A knitted fabric is made from a single yarn, or a set of yarns, formed into loops, each row of loops being drawn through the row before it. The difference in structure shows itself at once in wear. A knitted garment stretches in every direction, because a loop can be pulled out of shape and will come back, so it follows the shape of the body, moves with the wearer and is comfortable for a vest, a sock or a sports shirt, but it also loses its shape with use and may sag at the elbows and the seat. A woven garment has very little stretch except on the bias, so it holds the shape the tailor gave it and is the better choice where a sharp line is wanted, but it has to be cut with ease allowed at the shoulder, the elbow and the knee or it will bind on the wearer. A second difference worth crediting is that a cut knitted fabric may ladder from a single broken loop, where a woven fabric only frays.

*Woven fabric defined as two sets of yarns interlaced at right angles 1. Knitted fabric defined as loops drawn one through another 1. One consequence in wear, such as the stretch and recovery of the knit against the shape holding of the woven cloth 1.*

- (c) A finish is any treatment given to a fabric after it has been woven or knitted, whether mechanical or chemical, in order to improve its appearance, its handle or the way it behaves in use. Grey cloth as it leaves the loom is stiff, uneven in colour and full of impurities, and almost no fabric reaches the shop without some finishing. Mercerisation is a chemical finish given to cotton, in which the cloth is treated with caustic soda under tension. The flat ribbon like fibre swells and rounds out, so the cloth gains lustre, takes dye more deeply and becomes stronger and more absorbent. Durable press, or wash and wear, is a resin finish whose purpose is to let the fabric come out of the wash with few creases, so that it needs little or no ironing, the resin holding the fibres in place when the cloth is wet. Other finishes that may be credited are calendering for smoothness and sheen, napping for warmth, water repellency, flame retardancy, shrinkage control and the mothproofing of wool. Before buying a garment the care label should be read for the washing instruction, that is whether the garment may be machine washed, must be washed by hand or must be dry cleaned only, and at what temperature. It should also be read for any special warning, such as do not bleach, do not tumble dry, dry in the shade, wash separately or iron on the reverse at a low setting. A garment whose label calls for dry cleaning adds a running cost that should be weighed before the purchase, and a garment with no label at all is worth avoiding.

*Finish defined as a treatment given after weaving or knitting to improve appearance, handle or performance 1. First finish named with its purpose and its effect 1. Second finish named with its purpose and its effect 1. Two things to look for on the care label, the washing or cleaning instruction and one special warning 1.*

### Question 9 [10]

- (a) Extension education is the teaching of people outside the walls of a school or college, in their own homes, fields and villages, in order to help them improve their own living by their own effort. It works with adults who come to it voluntarily, it starts from the needs they themselves feel, it uses their own situation as the material of the lesson, and it is judged not by what the teacher has said but by what the people have changed. Its aims are, first, to carry the findings of research in agriculture, nutrition, health and home management to the people who can use them, and to carry the people's problems back to the research worker. Second, to develop the people themselves, so that they gain the confidence, the skill and the habit of working together that will let them meet the next problem without being led to it. A third aim worth crediting is the raising of the standard of living and of family life in the community, and a fourth is the training of local leaders through whom the work can continue.

*Extension education defined as out of school education for people in their own setting, for their own improvement 1. First aim 1. Second aim 1.*

- (b) The elements of the communication process are the communicator or source, the message, the channel or medium through which it travels, the audience or receiver, and the response or effect, with feedback running back from the audience to the communicator. A message may break down at the communicator, if the extension worker is not trusted by the village, does not know the subject well enough to answer a question, or speaks as a superior, since an audience that does not accept the speaker will not accept what is said. It may break down at the message itself, if it is pitched too high, carries technical words the audience does not use, asks for more change at one time than the audience can take in, or has nothing in it that the audience can see the point of. It may break down at the channel, if a printed leaflet is given to people who cannot read, or a film is shown where there is no power. It may break down at the audience, if the audience that was reached is not the one that takes the decision, as when the message on infant feeding is given to the men of the village. It may break down for want of feedback, if the worker never finds out whether anything was understood and goes on in the same way.

*The elements named, including feedback 1. First point of breakdown explained 1. Second point of breakdown explained 1.*

- (c) A person passes through five stages before taking up a new practice. At the awareness stage the person first comes to know that the practice exists, but knows little about it. At the interest stage the person wants to know more and begins to seek out information about it. At the evaluation stage the person weighs it mentally against his own circumstances and asks whether it will work on his land, in his house and with his money. At the trial stage the person tries it on a small scale, on one plot or with one meal, so that little is risked. At the adoption stage, if the trial has satisfied him, the person takes it up fully and continues with it. A demonstration often carries an audience further than a lecture because it works on the stages where a lecture is weakest. A lecture can create awareness and some interest, but it asks the audience to accept the result on the speaker's word. A demonstration puts the result in front of them. If an extension worker tells a group of village women that a leafy vegetable should be washed before it is cut and not after, they may agree and do nothing. If instead the worker washes one bundle after cutting and one before, lets each stand, and then shows them the coloured water drained from the first, the point is made by the evidence and not by authority, it is remembered because it was seen, and it can be repeated at home with nothing that the household does not already own. A method demonstration also lets the women try the thing under the worker's eye, which carries them straight into the trial stage, and it allows questions that a lecture does not.

*The stages named in order, awareness, interest, evaluation, trial and adoption 1. Any three of them explained as to what the person does 1. The demonstration contrasted with the lecture, with the point that the result is seen rather than asserted 1. A worked example, with the link to the trial stage or to the ease of repeating it at home 1.*

### Question 10 [10]

- (a) Community development is a process in which the people of a locality take up the improvement of their own economic, social and cultural conditions through their own organised effort, with technical help and some material help from outside, chiefly from the government. The emphasis falls on what the people do rather than on what is done for them. Two features of such a programme are, first, that it is based on the needs the people themselves feel and on their own participation, so that the people share in the deciding, in the work and in the cost, and the asset created is looked after afterwards because it is felt to be theirs. Second, that it is comprehensive rather than single purpose, taking up agriculture, health, education, water, roads and village industry together, because the problems of a village are tied to one another and a gain on one front is lost if the others are left alone. A third feature worth crediting is the use of local leadership and local institutions, and a fourth is that outside agencies act as helpers and advisers and withdraw as the local body grows able to carry on.

*Community development defined as improvement by the people's own organised effort with help from outside 1. First feature, felt needs and the people's own participation 1. Second feature, such as the comprehensive approach or the reliance on local leadership 1.*

- (b) First, the organisation may find that the issue it has come to work on is not the one the village feels most strongly about, so that meetings are attended out of courtesy and nothing is carried out. Until the workers have taken up something the village itself wants, they are unlikely to be given a hearing on the issue they came for. Second, the organisation runs into the existing structure of the village. Caste, landholding and faction decide who speaks in a meeting and who is silent, and the people the programme is meant to reach, often women, the landless and the lower castes, are the very people least able to come forward, while an influential group that stands to lose by the change may oppose it quietly and effectively. Third, the organisation is short of resources and of continuity. Funds come as a grant for a fixed period, trained workers are hard to keep in a village posting, and the work needs several years of steady presence before a change in practice holds, so the organisation is often gone before the change has settled. Other difficulties worth crediting are the suspicion left by earlier schemes that promised and failed, the difficulty of working with government departments whose rules and calendar do not match the village's, and the problem of showing results on paper when the real gain is a change in attitude.

*First difficulty, the gap between the organisation's issue and the village's felt need 1. Second difficulty, the social structure of the village and the silence of the people the work is meant for 1. Third difficulty, such as the shortage of funds and trained staff or the lack of continuity 1.*

- (c) Consumer protection means the whole body of law, machinery and organised effort that safeguards a buyer against unfair trade practice, defective goods, deficient service, short weight, overcharging and misleading advertisement, and that gives the buyer a way of getting the wrong put right without going to an ordinary civil court. It is needed because the buyer faces the seller from a weaker position, knowing less about the goods, lacking the means to test them and having little bargaining power against an organised trade. The recognised rights of a consumer are the right to safety, the right to be informed, the right to choose, the right to be heard, the right to seek redress and the right to consumer education. A consumer who has been sold a defective article should first take the article back to the seller with the bill and ask for it to be replaced, repaired or paid for, and should put the complaint in writing if the first request is refused, keeping a copy of the letter and of the bill. If the seller does not settle it, the consumer may file a complaint before the District Consumer Disputes Redressal Commission, where the complaint is made on plain paper, needs no lawyer, costs a small fee and may ask for the removal of the defect, the replacement of the article, the return of the price and compensation for the loss suffered. There is an appeal from the District Commission to the State Commission and from the State Commission to the National Commission. With these rights goes the responsibility of the consumer to buy with care and to help the machinery work, by insisting on a bill for every purchase, reading the label and the warranty before buying, checking weights and marks of standard, and complaining when something is wrong instead of letting it pass, since a right that is never used leaves the trade with no reason to mend its ways.

*Consumer protection defined, with a reason why the buyer needs protecting 1. The rights named 1. The redress described, from the complaint to the seller to a complaint before the District Commission and what may be asked for 1. One responsibility of the consumer, with the reason it matters 1.*