ICSE Class 10 Cookery Specimen Paper 2

Written by the Future Topper subject team on the CISCE examination pattern. Not an official CISCE paper.
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Maximum Marks: 100 | Time Allowed: Two hours | Reading Time: 15 minutes

Part I is compulsory. Attempt any four questions from Part II.

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. Marks for each question, or part of a question, are shown in brackets. Part I is compulsory and carries 40 marks. Part II carries 60 marks, and you must attempt any four questions from it. Where a question asks for a plan or a layout, draw it in pencil and label it in words. Drawings need not be to scale. No printed figures are supplied with this paper. Answers should be written in your own words and kept to the point.

PART I (40 Marks)

Attempt all questions from this Part.

Question 1 [15]

Choose the correct answer for each part. Write only the option you choose.

(i) Peas, carrots and cauliflower are at their cheapest and best in India during:

(a) the winter (b) the monsoon

(c) the hot weather (d) every month of the year

(ii) The date on a packet that tells the buyer the last day on which the food should be eaten is the:

(a) date of packing (b) batch number

(c) date of licence (d) use by date

(iii) Fruit and vegetables are called protective foods because they chiefly supply:

(a) starch and fat (b) vitamins, minerals and fibre

(c) good quality protein (d) concentrated energy

(iv) A growing child needs more body building food than an adult of the same weight chiefly because:

(a) children dislike vegetables (b) children sleep longer

(c) new tissue is being laid down as the child grows (d) children eat at shorter intervals

(v) A diet in which the amount of one named constituent, such as salt or fat, is deliberately kept low is said to be modified in:

(a) consistency (b) cost (c) a constituent (d) flavour only

(vi) The person who works out the actual diet an unwell individual should follow is the:

(a) cook of the house (b) shopkeeper

(c) neighbour who has had the same illness (d) qualified dietitian working with the doctor

(vii) Pasteurisation of milk means that the milk has been:

(a) heated and cooled quickly to destroy harmful organisms (b) boiled for an hour

(c) mixed with a preservative (d) dried into a powder

(viii) In a refrigerator, raw meat and fish should be kept:

(a) on the top shelf above the cooked food (b) in the door rack

(c) covered on the lowest shelf below the cooked food (d) loose beside the salad

(ix) A tin of food that is found to be swollen and leaking should be:

(a) opened and the food boiled well (b) thrown away unopened

(c) kept in the refrigerator for later (d) opened and tasted first

(x) The chief purpose of an exhaust fan or a chimney over the cooker is to:

(a) light the worktop (b) warm the room

(c) dry the washed utensils (d) carry away steam, smoke and cooking smells

(xi) The surface chosen for a kitchen worktop should above all be:

(a) rough so that bowls do not slip (b) smooth, hard and easy to wash

(c) dark so that stains do not show (d) covered with cloth

(xii) Wire netting is fitted to the ventilators and shelves of a kitchen store mainly to:

(a) keep out flies, rats and other pests (b) support the shelves

(c) improve the look of the room (d) let in more light

(xiii) Leftover cooked food taken out of the refrigerator should be:

(a) eaten cold straight away every time (b) warmed a little and left on the table

(c) reheated as often as it is needed (d) reheated right through until piping hot, once only

(xiv) A double boiler is used for:

(a) heating delicate mixtures gently over water so that they do not catch (b) boiling two vegetables in one pan

(c) deep frying (d) grinding wet masala

(xv) A colander is used for:

(a) measuring dry ingredients (b) draining water away from boiled food

(c) beating eggs (d) rolling out dough

Question 2 [10]

(i) Give two reasons why a shopping list is made before going to the market. **[2]**

(ii) State two points of difference between a perishable food and a non perishable food, giving one example of each. **[2]**

(iii) State two general dietary principles usually followed for a person recovering from a long illness. Do not give any quantities. **[2]**

(iv) Explain why the fuel cylinder in a kitchen must stand upright in a ventilated place. **[2]**

(v) State two reasons why a kitchen needs good lighting at the working area. **[2]**

Question 3 [15]

(i) For each of the following, name one dish in which it is used and state the season in which it is cheapest: cauliflower, bottle gourd, amla. **[3]**

(ii) State three points to be checked on a packet of food before buying it, giving a reason for each. **[3]**

(iii) Explain how temperature is used to keep food safe, naming the three ranges of temperature involved. **[3]**

(iv) State three reasons why the walls, floor and ceiling of a kitchen need to be finished in a particular way, naming a suitable finish in each case. **[3]**

(v) Name one labour saving device for each of the following jobs and state one advantage of using it: grinding wet masala, kneading dough, washing utensils. **[3]**

PART II (60 Marks)

Attempt any four questions from this Part. Each question carries 15 marks.

Question 4 [15]

(a) Draw up a seasonal chart for an Indian year under the three headings of winter, summer and the monsoon. Under each, name the fruit and vegetables that are then in plenty, and state one point of care in buying during that season. **[5]**

(b) Explain the part convenience foods play in a modern household under the headings of time saved, keeping quality, cost and nutritive value. **[5]**

(c) A household wishes to cut its food bill without lowering the quality of its meals. Suggest five ways in which seasonal buying, careful marketing and sensible storage can help, giving a reason for each. **[5]**

Question 5 [15]

(a) Explain the term meal planning and state three aims a good meal plan should satisfy. **[5]**

(b) Explain how the meals planned for the following members of one family would differ from one another, and why: a young child, a boy in his teens, a woman doing heavy household work, and an elderly person. Speak in terms of food groups and the form of the food, not in quantities. **[5]**

(c) Explain what is meant by the term food group. State how a planner uses the groups to check that a day's meals are balanced, and explain how one food of a group may be exchanged for another of the same group when the first is costly or out of season. **[5]**

Question 6 [15]

(a) State five general principles to be kept in mind when cooking and serving food for a person who is unwell. **[5]**

(b) Explain, in general terms only, the dietary principles usually followed where the diet has to be modified in (1) the amount of salt and (2) the amount of fibre. State in each case why the modification may be advised and who decides on it. **[5]**

(c) Explain, in general terms only, the dietary principles usually followed in (1) anaemia from a lack of iron and (2) a condition in which food has to be made easy to swallow. State clearly that the diet for the individual is planned by a qualified dietitian with the doctor. **[5]**

Question 7 [15]

(a) Explain the difference between chilling and freezing. State what each does to the growth of micro-organisms and give two rules to be followed when frozen food is thawed. **[5]**

(b) Describe how a fruit jam is made at home and explain the part played by sugar, by the acid and by the proper filling and sealing of the jars in making the jam keep. **[5]**

(c) Describe how a mango or lime pickle is preserved at home. State the part played by salt, by oil and by sun drying, and give two reasons why a pickle sometimes grows mould on the surface. **[5]**

Question 8 [15]

(a) Draw a plan of a U shaped kitchen. Label on it the three work centres, the window, the door and the position of the refrigerator, and mark the work triangle. **[5]**

(b) Explain what is meant by the work triangle. State why it should be kept short, and state two faults in a kitchen that would lengthen it. **[5]**

(c) Explain, with a reason in each case, how each of the following is decided when a kitchen is planned: the height of the worktop, the height and depth of the storage shelves, the place of the door, the place of the window, and the position of the light point. **[5]**

Question 9 [15]

(a) Explain why a person suffering from a cold, a stomach upset, a skin infection or a cut on the hand should not handle food that others will eat, and state what should be done in each case. **[5]**

(b) State five rules for the hygienic washing up of utensils after a meal, giving a reason for each. **[5]**

(c) Name four pests commonly found in a kitchen. For each one, state how it spoils food or spreads disease, and state one way of keeping it out. One mark is for a general rule that applies to all four. **[5]**

Question 10 [15]

(a) Explain what is meant by a labour saving device. Name four such devices found in a kitchen and state the work each one saves. **[5]**

(b) Explain how each of the following should be cleaned and cared for: a gas burner, a mixer grinder, a refrigerator, a non stick pan, and a wooden chopping board. **[5]**

(c) State five rules for the safe use of electrical and gas equipment in a kitchen, giving a reason for each. **[5]**

ANSWER KEY AND MARKING SCHEME

A full model answer is given for every part. Marks shown in italics are the step marks an examiner would award. Accept any other correct point of equal value, and accept answers in the candidate's own words. Where a question asks for three or four points, credit only the number asked for, taking the best of those offered. Candidates who give quantities, calorie figures or meal by meal prescriptions in the therapeutic diet and meal planning questions should be credited for the general principles only.

Question 1 [15]

(i) (a) the winter. These are cold weather crops, and supply is heaviest and the price lowest from about November to February.

(ii) (d) use by date. It is given on highly perishable foods, and such food should not be eaten after that date even if it looks and smells all right.

(iii) (b) vitamins, minerals and fibre. They also supply water, and they protect the body against deficiency disease, which is how they get the name.

(iv) (c) new tissue is being laid down as the child grows. Protein is needed for the building of new tissue as well as for its repair.

(v) (c) a constituent. The kinds of food may stay much the same while the amount of the named constituent is raised or lowered.

(vi) (d) qualified dietitian working with the doctor. The diet depends on the individual's condition and treatment, so it cannot be copied from another person.

(vii) (a) heated and cooled quickly to destroy harmful organisms. Pasteurised milk is safer but is not sterile, so it is still kept cold and covered and used by its date.

(viii) (c) covered on the lowest shelf below the cooked food. Nothing from the raw food can then drip on to food that will be eaten without further cooking.

(ix) (b) thrown away unopened. A swollen or leaking tin shows that the seal has failed or that gas is being produced inside, and the food is not safe.

(x) (d) carry away steam, smoke and cooking smells. The room stays cooler and the walls and utensils do not collect a greasy film.

(xi) (b) smooth, hard and easy to wash. Spills do not soak in, and the surface can be wiped down after every job.

(xii) (a) keep out flies, rats and other pests. The netting lets air through while the opening stays guarded.

(xiii) (d) reheated right through until piping hot, once only. Reheating again and again keeps the food in the warm range in which bacteria multiply.

(xiv) (a) heating delicate mixtures gently over water so that they do not catch. It is used for custard, white sauce, melting chocolate and the like.

(xv) (b) draining water away from boiled food. The water runs out through the holes while the food stays in the bowl.

1 mark for each correct option. No marks are deducted for a wrong option.

Question 2 [10]

(i) A list made from the week's menus, after looking through what is already in the store, makes sure that nothing needed is forgotten and that a second trip to the market is not wasted. It also keeps the buying within the money set aside, because the shopper buys what is on the list and is not drawn into things that are not needed and may be wasted.

Nothing needed is forgotten 1. Spending is controlled and waste avoided 1.

(ii) A perishable food spoils within a day or two unless it is kept cold, because it holds a good deal of water and bacteria grow in it quickly. Milk, fish and green leafy vegetables are examples. A non perishable food keeps for months in an ordinary cupboard if it is kept dry, airtight and free of insects, because it holds very little water. Wheat, rice, dals and sugar are examples.

Perishable food described with an example 1. Non perishable food described with an example 1.

(iii) The diet is kept light and easy to digest at first and brought back to the ordinary mixed diet step by step as strength returns. It is kept balanced, with the body building and protective foods well represented, offered in small amounts at frequent intervals because the appetite is usually poor, made attractive in colour and flavour so it is taken, and fluid is offered freely. The diet for the particular person is planned by a qualified dietitian with the doctor.

1 mark for each of any two sound general principles.

(iv) The cylinder holds the fuel as a liquid under pressure with gas above it, and the valve is made to draw off gas. Stood on its side or upside down it can let liquid into the pipe, and gas is then delivered in far too great a quantity at the burner. Ventilation is needed because the gas is heavier than air, so any leak settles and collects at floor level in a closed space, where it can be set alight by a spark or a flame.

Upright so that gas and not liquid is drawn off 1. Ventilation because the gas is heavier than air and collects 1.

(v) Good light lets the cook see what she is doing, so that food is cleaned and cut properly, dirt, insects and spoiled portions are noticed and the dishes are cooked and served well. It also prevents accidents with knives, hot pans and the flame, and it saves the eyes from strain. The light should fall in front of the worker and not behind her, so that she does not work in her own shadow.

1 mark for each of any two sound reasons.

Question 3 [15]

(i) Cauliflower: used as a dry vegetable with potato, in a mixed vegetable, in a paratha stuffing or in a pickle, and it is cheapest in the winter. Bottle gourd: used as a vegetable with gram dal, in a kofta or in kheer, and it is cheapest in the summer and the monsoon. Amla: used in a pickle, in a murabba, in a chutney or as a juice, and it is cheapest in the winter.

1 mark for each food, a sensible dish and the correct season both being needed.

(ii) The use by or best before date, because food past its date may be unsafe or may have lost its quality. The list of ingredients, because it shows what the food is actually made of and whether anything is present that the family must avoid. The net weight and the price, because they show whether the packet is good value and whether the contents are short. A standard mark such as the FSSAI licence number or the Agmark or ISI mark, because it shows that the maker is licensed and the food is made to a standard. The condition of the packet, because a torn, leaking, damp or swollen packet means the food inside may be spoiled.

1 mark for each of any three points stated with a reason.

(iii) Micro-organisms multiply fastest in the warm middle range, roughly the range of ordinary room and body temperature, so food should spend as little time as possible in it. Cold is used to hold food back: in the refrigerator the chill slows the growth of micro-organisms and keeps perishable food for a few days, and in the freezer the much lower temperature stops growth almost entirely and keeps food for months. Heat is used to destroy them: cooking, boiling and reheating food right through until it is piping hot kills the organisms present in it. The practical rule is to keep cold food cold, keep hot food hot and keep food out of the warm middle range.

Warm middle range named as the range of rapid growth 1. Cold used to slow or stop growth 1. Heat used to destroy organisms 1.

(iv) The walls should be finished to about the height of the head in glazed tile, or in oil paint, over the working area, because the surface behind the sink and the cooker is splashed with water and grease and has to be washed down often. The floor should be of mosaic, terrazzo, ceramic tile or cement finished smooth but not polished to a slippery shine, because it must take water and spills and be mopped daily, and because a slippery floor is dangerous with hot pans in the hand. The ceiling should be plastered smooth and whitewashed or painted in a light colour, because a smooth light ceiling throws the light back into the room and does not hold cobwebs and soot. Light colours on all three surfaces also show up dirt, so it is cleaned instead of being left.

1 mark for each of any three surfaces, the reason and a suitable finish both being needed.

(v) Grinding wet masala: a mixer grinder, which does in a minute what takes a long spell of heavy work on the grinding stone, and gives an even paste. Kneading dough: a food processor with a dough blade or an atta

kneader, which saves the hands and arms and produces an evenly kneaded dough in a few minutes. Washing utensils: a dishwasher, or at the simplest a sink with running hot water and a draining rack, which saves the work of scrubbing and of drying each utensil by hand and washes at a temperature the hands could not stand. A pressure cooker, a hand chopper and a peeler are also accepted for their own jobs.

1 mark for each job, the device and an advantage both being needed.

Question 4 [15]

(a) Winter: peas, carrots, cauliflower, cabbage, radish, beetroot, spinach and other greens, fenugreek leaves, tomato, orange, amla and guava. Care in buying: greens should be crisp and fresh, not wilted, and roots should be firm and free of cracks and insect holes. Summer: bottle gourd, ridge gourd, tinda, cucumber, pumpkin, okra, mango, watermelon, muskmelon, litchi and jamun. Care in buying: buy in small lots and only as much as will be used in a day or two, because food spoils very quickly in the heat. Monsoon: cucumber, gourds, okra, maize, pear, banana and papaya. Care in buying: greens are often muddy and insect eaten and spoil fast in the damp, so they should be looked over leaf by leaf, and grain and flour should be bought in small quantities and kept airtight because of the damp.

Winter foods with a point of care 2. Summer foods with a point of care 2. Monsoon foods with a point of care 1.

(b) Time saved: part or all of the cleaning, cutting, mixing or cooking has already been done, so these foods save the cook both time and labour, which matters most where the women of the house go out to work or where a meal has to be put together at short notice. Keeping quality: most of them are preserved, packed and sealed, so they keep for months in an ordinary cupboard and are at hand out of season and on days when the market cannot be reached, though once a packet or tin is opened the food in it becomes perishable like any other. Cost: they cost a good deal more than the same dish made at home from raw materials, because the buyer is paying for the processing, the packing and the carriage, so they strain the food budget if they are used for everyday meals. Nutritive value: some processing removes fibre and part of the vitamin value, and many of these foods carry a large amount of added salt, sugar and fat; a few are fortified and the frozen ones keep their value fairly well, but a diet built mainly on convenience foods is poorly balanced and they are best used to support home cooking rather than to replace it.

Time saved 1. Keeping quality 1. Cost 1. Nutritive value 2.

(c) Buy fruit and vegetables in season, because the supply is then at its heaviest and the price at its lowest, and the quality is better at the same time. Buy the non perishable staples such as wheat, rice, dals and oil in bulk at the right time of year and store them properly, because the unit price is lower and the kitchen is not caught short. Buy perishables in small quantities and only as much as will be used, because anything that spoils is money thrown away. Choose the cheaper foods within a group in place of the costly ones, for example seasonal greens for out of season vegetables, or dal and curd for costlier protein foods, because the nutritive value of the group is much the same. Make a list from the week's menus after looking through the store, and avoid buying ready made foods for everyday meals, because the list controls impulse buying and home cooking costs much less than ready made dishes. Store food correctly, keep the store dry, airtight and free of pests and use up what is older first, and use leftovers in a planned dish instead of letting them go to waste.

1 mark for each of any five ways stated with a reason.

Question 5 [15]

(a) Meal planning is the deciding in advance of what dishes are to be served at each meal of the day or the week, choosing them so that the needs of everyone in the family are met within the money, the time, the fuel and the equipment available. A good meal plan should supply all the nutrients each member needs, that is it should be balanced and should suit the age, the health and the work of each one. It should keep within the money set aside for food. It should suit the time and energy the cook can give, with the heavy work spread out and part of it done in advance. It should give variety in the foods used, in the methods of cooking, in colour, flavour and texture, so that meals are appetising and are eaten. It should respect the likes, the dislikes and the customs of the family, so that food is not refused and wasted. It should make good use of what is in season and what is already in the store, and it should keep waste down.

Meaning of meal planning 2. Any three of the aims correctly stated, 1 for each 3.

(b) The young child needs food for growth as well as for activity, so the body building and protective foods are well represented, and milk is important. Because the stomach is small and the appetite uncertain, the food is given in small amounts at frequent intervals, it is made soft and easy to chew and swallow, and it is kept simple and not strongly spiced, with the colour and the shape made attractive so that it is taken. The boy in his teens is growing fast and is usually very active, so the energy foods and the body building foods both matter a good deal and an extra wholesome snack is planned between meals in place of bought fried food. The woman doing heavy household work needs a good share of the energy foods and sound meals at regular hours, with the protective foods well represented, and she should not be the one who eats last and least. The elderly person is usually less active and the digestion and the teeth are often weaker, so the food is made soft and easy to chew, it is lightly seasoned and not greasy or fried, the protective foods and fluid are offered freely, and meals are given at regular hours in smaller servings more often. In every case the actual helpings a person takes depend on the individual, and anyone who is unwell should follow the diet worked out by a qualified dietitian with the doctor.

Young child 1. Teenage boy 1. Woman doing heavy work 1. Elderly person 1. Change in the form of the food, and recognition that quantities are individual 1.

(c) A food group is a set of foods placed together because they resemble one another in the nutrients they chiefly supply, such as the cereals and millets, the pulses and nuts, milk and foods of animal origin, the vegetables and fruit, and the fats, oils and sugars. A planner uses the groups as a checklist. After the day's menus are drafted, she looks through them to see that every group has come in somewhere during the day and that no group has been left out or has crowded the rest out, and she looks for a leafy vegetable and a fruit among the protective foods in particular. Within a group one food may be put in place of another, because the foods of a group supply much the same nutrients. So if a particular vegetable is out of season or dear, another seasonal vegetable takes its place; if milk is short, curd, paneer or a pulse dish is used to make up the body building share; and if one cereal is costly, another cereal or millet is used instead. In this way the meal stays balanced while the choice bends to the market and to the purse.

Meaning of a food group with examples 2. How the groups are used to check balance 2. Exchange within a group with an example 1.

Question 6 [15]

(a) Follow whatever the doctor and the dietitian have advised for that person, and do not go by what was given to someone else with the same illness. Keep the diet as balanced, as varied and as near to the ordinary family food as the condition allows, so that the person is not needlessly deprived and the meals do not become dull. Pay great attention to cleanliness in the kitchen and in the handling of the food, because a person who is unwell is less able to withstand an infection, and serve the food freshly cooked rather than reheated. Make the food easy to take and digest, with soft or light preparations, light seasoning and little fat or frying, and give it in small amounts at frequent intervals, since the appetite is usually poor. Serve the food attractively in clean dishes at the right temperature and in a pleasant way, because a sick person eats with the eyes first and food that is refused does no good. Offer fluid freely unless it has been restricted on advice, and never press or force food on the person. Report any change in appetite, in the ability to swallow or in how the food is tolerated to the doctor rather than altering the diet on your own.

1 mark for each of any five sound general principles.

(b) (1) Where the amount of salt in the diet has to be kept low, the general principles are that salt is not added at the table and is used sparingly in cooking, that very salty items such as pickle, papad, salted biscuits and namkeen, preserved and cured foods and many ready made and packet foods are kept down or left out, and that flavour is built instead with lemon, herbs, fresh spices and good cooking so that the food is still appetising. Such a modification may be advised where the body is holding fluid or where blood pressure or the work of the heart or the kidney is a concern. (2) Where the amount of fibre has to be changed, the diet may be made higher in fibre, with whole grains, pulses, vegetables and fruit well represented and plenty of fluid taken along with them, or it may be made lower in fibre for a time, with the skins and seeds of fruit and vegetables removed, food strained or sieved and whole grains and raw salads kept out. A higher fibre diet may be advised to help the working of the bowel, and a lower fibre diet where the intestine needs to be given rest and

little residue. In both cases whether the modification is needed at all, how far it goes and how long it lasts are decided for the individual by a qualified dietitian working with the doctor.

General principles for a low salt modification with a reason 2. General principles for a change in fibre with a reason 2. Decided for the individual by a qualified dietitian with the doctor 1.

(c) (1) In anaemia from a lack of iron the general principles are that the iron rich foods of the ordinary diet are brought in well, such as green leafy vegetables, pulses, whole grains, jaggery, dates and, where the family eats them, egg, liver and meat. A food rich in vitamin C, such as amla, guava, citrus fruit or a squeeze of lemon, is taken along with the meal, because vitamin C helps the body to take up iron from food. Strong tea and coffee are better taken away from mealtimes rather than with the meal. The diet is kept balanced in other respects, and food alone is not treated as the whole of the treatment, since the doctor decides whether anything further is needed. (2) Where food has to be made easy to swallow, the general principles are that the consistency of the food is altered while the kinds of food stay much the same, so it is cooked soft and then mashed, minced, sieved or puréed, and hard, dry, crumbly, stringy and very fibrous items and anything with bones, seeds or husk are left out. A thin watery liquid is sometimes harder to manage than a thick smooth one, so the thickness is set to what suits the person. The food is served in small amounts at frequent intervals, the person sits upright to eat and is not hurried, and the diet is kept as balanced and as appetising as the consistency allows. In both cases the diet the individual follows, including which foods are suitable and in what form and amount, is planned by a qualified dietitian working with the doctor.

General principles in iron deficiency anaemia 2. General principles where food must be easy to swallow 2. Clear statement that the individual diet is planned by a qualified dietitian with the doctor 1.

Question 7 [15]

(a) Chilling is the keeping of food at the low temperature of the refrigerator, a few degrees above freezing, at which the food itself stays unfrozen. Freezing is the keeping of food at a much lower temperature, in the freezer, at which the water in the food turns to ice. Chilling only slows the growth of micro-organisms and the action of the enzymes, so perishable food keeps for a few days. Freezing holds growth back almost completely and keeps food for months, but it does not kill the organisms, which become active again as the food thaws. Rules for thawing: thaw food in the refrigerator, or by another method that keeps it cold, and not by leaving it standing in the warmth of the kitchen, because the outside would reach the warm range long before the middle thawed. Once thawed, food must be used up, cooked right through and not refrozen, and frozen food should never be partly thawed and put back. Any liquid that drains from thawing food should be kept away from other foods and the dish and the surface washed.

Difference between chilling and freezing 2. Effect of each on micro-organisms 1. Two rules for thawing, 1 for each 2.

(b) Firm, just ripe fruit is washed, peeled where it needs peeling and cut up, and cooked with a little water until it is quite soft and the pulp has broken down. Sugar is added and stirred until it dissolves, and the mixture is boiled steadily, with the scum taken off, until it sets. Lemon juice or citric acid is added towards the end, and the setting point is tested by letting a little cool on a cold plate and seeing whether it wrinkles when it is pushed, or by seeing whether the jam falls from the spoon in a sheet. The hot jam is poured into clean dry jars that have been heated, filled nearly to the top, covered at once and sealed when cold, then labelled and stored in a cool dark place. The sugar is what makes the jam keep: in a high concentration it holds the water so that it is not available to micro-organisms, and the thick syrup also keeps air out. The acid is needed for the pectin to set the jam, it brings out the flavour, and the sourness itself discourages spoilage organisms. Filling the jars hot and right up and sealing them keeps out air, moisture, dust and mould spores, and a jar that is not properly filled or sealed, or jam that has not been boiled enough, grows mould on the top.

Method of making the jam 2. Part played by the sugar 1. Part played by the acid 1. Part played by proper filling and sealing 1.

(c) Sound unblemished fruit is wiped, washed and dried well, cut up and the seed removed, and then salted. The pieces may be mixed with salt and left for a day or two, or spread in the sun, so that water is drawn out of them and they lose their rawness. The roasted ground spices and the salt are mixed in, the fruit is packed into a clean dry jar, and oil that has been heated and cooled is poured over so that it stands well above the fruit.

The jar is covered with a clean cloth and kept in the sun for several days, shaken or stirred with a clean dry spoon and then stored in a cool dark place and always handled with a dry spoon. The salt draws water out of the fruit and out of the cells of any micro-organisms, so that too little free water is left for them to grow, and it also firms the pieces. The oil forms a layer that keeps out air and moisture and so keeps mould and yeast from settling on the surface. Sun drying removes more of the water and the warmth helps the salt and the spices to work right through. Mould appears on the surface when water gets into the pickle, from fruit or a jar or a spoon that was not perfectly dry, or from rain or steam, and when the layer of oil does not cover the fruit or there is too little salt, so that the surface is left open to the air.

Method of preserving the pickle 2. Part played by the salt 1. Part played by the oil and by sun drying 1. Two reasons for mould on the surface 1.

Question 8 [15]

(a) The plan should show a room in which the worktop runs along three walls, that is along two facing walls and the wall joining them, in the shape of the letter U, with the fourth wall left for the door. The sink goes in the middle arm, under the window. One side arm carries the store cupboard and the preparation worktop, and the other carries more worktop and then the cooker, with the refrigerator at the end of that arm near the door so that supplies can be put away without crossing the kitchen. The three work centres, that is storage and preparation, the sink, and cooking and serving, should be labelled. Lines drawn from the sink to the cooker, from the cooker to the refrigerator and from the refrigerator back to the sink mark the work triangle. The door should be shown opening so that it does not cut across the triangle. The drawing should be in pencil and labelled in words, and it need not be to scale.

Correct U shaped outline with the worktop on three walls 1. Three work centres labelled in sensible positions 2. Window, door and refrigerator shown 1. Work triangle marked 1.

(b) The work triangle is the imaginary triangle got by joining the three main centres of a kitchen, that is the sink, the cooker and the refrigerator or store, which are the three points between which the cook moves most in the course of a meal. It should be kept short because almost all the walking in a kitchen is along its sides, so the shorter it is, the less the cook walks, the less she carries wet, heavy and hot things about, the less she tires, and the sooner the work is done. It should not be so short that there is no worktop between the centres to put things down on. Faults that lengthen it: the three centres placed far apart on long walls, or set so that the cook has to cross from one end of the room to the other, as when the refrigerator is put outside the kitchen or in a far corner. A door, a dining table or an island placed so that traffic cuts across the triangle and the cook has to go round it. A kitchen that is too large or awkwardly shaped for the work it does, or a window, a cupboard or a fixed appliance that forces the sink or the cooker out of its proper place.

Meaning of the work triangle 2. Reason for keeping it short 1. Two faults that lengthen it, 1 for each 2.

(c) The height of the worktop is fixed by the height of the person who will use it, usually at about the level of the hip, so that she can work with her arms a little bent and does not have to stoop or reach up, which would tire the back and the shoulders. A lower surface is better for jobs needing force, such as kneading. The height and depth of the storage shelves are settled so that everything in daily use lies between the knee and the eye and within arm's reach, with the heavy things low down and the seldom used things on the top shelf, and the shelves are kept shallow enough for the back row to be reached without taking out the front row, because deep shelves hide food until it spoils. The place of the door is chosen so that it opens clear of the work triangle and of the cooker, does not strike anyone carrying a hot pan, does not block a cupboard or the refrigerator when it stands open, and gives a short path to the dining area. The place of the window is chosen above or beside the sink and the main working area, because the daylight is then on the work, the cook has something to look at, and the steam and smells of the sink and the cooking go out through it. The position of the light point is fixed so that the light falls in front of the worker and on to the worktop, the sink and the cooker, and not behind her where she would work in her own shadow, with a separate point over the cooker, and switches placed within easy reach but away from the sink and the burner.

1 mark for each of the five items decided with a sound reason.

Question 9 [15]

(a) A person with a cold or a cough carries large numbers of organisms in the nose and the throat and sends them out in droplets on coughing, sneezing and even talking, so they settle on the food, on the hands and on the worktop. Such a person should keep away from the preparation and serving of food, and if that is not possible should cover the nose and mouth away from the food, wash the hands at once afterwards and not handle food that will be eaten uncooked. A person with a stomach upset, that is with loose motions or vomiting, is passing out very large numbers of the organisms causing it, and these are carried on the hands to the food, so such a person should not handle food that others will eat at all until well, should use the toilet and wash the hands with soap very carefully, and should see a doctor. A person with a boil, a septic finger or any skin infection carries organisms on the skin that cause food poisoning, so the affected part should be kept covered and away from food, and the person should not handle food while it is weeping or discharging. A cut or graze on the hand should be washed, and covered with a clean waterproof dressing, brightly coloured so it is noticed if it comes off, and a disposable glove worn over it, because the cut both takes in organisms from the food and gives out organisms into it. In every case the safest course is for the person to leave the handling of food to somebody else until the trouble has cleared up.

Cold or cough 1. Stomach upset 1. Skin infection 1. Cut on the hand 1. General rule of staying away from food handling until well 1.

(b) Scrape the food scraps off into the bin and rinse the utensils before washing, because scraps left on feed bacteria and insects and they make the washing water dirty at once. Wash in hot water with a detergent, because hot water and detergent together lift the grease, which cold water alone does not, and the heat helps to kill organisms. Wash in a sensible order, taking the glasses and the cups first, then the plates and spoons, then the pans and greasy utensils last, and change the water when it grows greasy, because otherwise the grease and food from the dirty utensils is carried back on to the clean ones. Rinse in clean hot water, because the detergent and the loosened grease must be carried right away and not left as a film on the surface of the utensil. Let the utensils drain and dry on a rack rather than wiping them with a cloth, or use a clean dry cloth kept only for this, because a damp used cloth puts bacteria straight back on to the clean surface. Wash and dry the sink, the scrubber and the cloths afterwards and stand them to dry, because they stay wet and soiled and become the dirtiest things in the kitchen, and put the utensils away dry in a closed shelf so that dust and insects do not reach them.

1 mark for each of any five rules stated with a reason.

(c) The housefly settles on waste and filth and then on food, carrying organisms on its legs and body and in what it leaves behind, and it is kept out by wire netting on the windows and ventilators, by covering all food and by keeping the waste bin covered and emptied. The cockroach hides in dark cracks, in cupboards and behind the sink, comes out at night over the food and the utensils and leaves its droppings and a bad smell, and it is kept out by blocking cracks and holes, by keeping the kitchen dry and free of food scraps overnight and by keeping food in closed containers. The rat and the mouse gnaw through packets, bags and even woodwork, eat and foul a great deal more food than they take and spread disease through their droppings and urine, and they are kept out by closing all holes and gaps, by keeping grain and flour in metal or hard plastic bins with tight lids and by trapping them. Ants come in long files to anything sweet or greasy, and they are kept out by wiping up spills at once, by keeping sugar, jaggery and sweets in airtight jars and by standing such jars where the ants' path can be broken. Weevils and other grain insects breed inside stored grain, flour and dals and reduce them to powder and webbing, and they are kept out by storing grain clean, dry and airtight and by looking it over and sunning it from time to time. The general rule that keeps all of them away is to leave no food and no water out for them: keep the kitchen clean and dry, keep every food covered or in a closed container, clear and wash up at the end of the day, keep the waste in a covered bin and empty it daily, and let in no gap or crack by which a pest can enter.

Four pests, each with how it spoils food and one way of keeping it out, 1 for each 4. General rule applying to all four 1.

Question 10 [15]

(a) A labour saving device is a piece of equipment, worked by hand or by power, that does a kitchen job in less time and with less effort than the same job done with the bare hands or with simple tools, so that the worker is

saved labour and fatigue. A mixer grinder grinds wet masala and chutney, makes a batter and whips and blends, saving the long heavy work of the grinding stone. A pressure cooker cooks dals, rice, meat and vegetables in a fraction of the usual time, saving both the cook's time at the fire and the fuel. A refrigerator keeps perishable food safe for days and lets food be bought and part prepared in advance, saving daily marketing and daily cooking from the beginning. A food processor chops, slices, grates and kneads, saving the work of cutting a quantity of vegetables and of kneading dough by hand. A gas or induction cooker, an electric kettle, a hand chopper, a peeler, an atta kneader and a dishwasher are also accepted.

Meaning of a labour saving device 1. Four devices with the work each saves, 1 for each 4.

(b) A gas burner: wipe the top and the pan supports after cooking while they are warm, not hot, and lift off the burner caps and supports and soak them in hot water with detergent when food has boiled over, scrubbing with a brush or a used toothbrush and clearing the ring of holes with a pin so that the flame is even. Dry everything fully before it goes back, and never let water run into the burner. A mixer grinder: switch off and unplug it first, take off the jars, wash them, their lids and the gaskets in warm soapy water and dry them well, and do not put the jar in water above the sealed base or dip the motor housing at all; wipe the housing and the cord with a damp cloth only, and never run a jar empty or overload it. A refrigerator: wipe up spills as they happen, and once a week or so switch it off, take everything out, defrost it if it is not frost free, and wash the inside, the shelves and the trays with warm water and a little baking soda or a mild detergent rather than a strong smelling cleaner, wiping the door gasket and drying all of it before switching on; keep the back free of dust and leave a gap behind it for air. A non stick pan: let it cool first, because cold water on a hot pan can warp it and harm the coating, then wash it with a soft sponge and mild detergent, never with steel wool, scouring powder or a knife; use only wooden or plastic spoons in it, do not heat it empty over a high flame, and store it without stacking heavy things inside it. A wooden chopping board: scrape it clean and wash it in hot water with detergent straight after use rather than letting it soak, stand it on edge to dry fully, and rub it over with a little oil now and then, because wood that is left wet warps, cracks and grows mould; keep separate boards for raw meat and fish and for salad and cooked food.

1 mark for each of the five items, a correct method of cleaning and a point of care both being needed.

(c) Keep the hands dry and do not touch a switch, a plug or any appliance with wet hands or while standing on a wet floor, because water conducts the current and the shock can be severe. Switch off at the point and pull the plug out, holding the plug and not the cord, before cleaning an appliance, changing a jar or a blade or putting a hand inside it, because the appliance could start while the hand is in it. See that every appliance is properly earthed, that the cord, the plug and the socket are sound, and have a frayed cord or a loose socket put right at once by an electrician, because a damaged cord can give a shock or set a fire going. Do not run several heavy appliances from one socket and do not overload a point with a multiple plug, because the wiring heats up and may catch fire. Keep cords clear of the burner, the hot pan, the sink and the edge of the worktop, because a cord that is scorched, wet or caught on something is a danger in itself and an appliance can be pulled over. Check the gas tubing and the regulator from time to time and replace the tube when it is due, and never look for a leak with a flame or a match. If gas is smelt, do not touch any switch or light any flame, but turn off the regulator and the knobs, open the doors and windows and let the gas clear. Light the match or the lighter first and then turn on the gas, stand the cylinder upright in a ventilated place, turn the regulator off at night and when the kitchen is left, and keep a pan handle turned inward and the loose end of the clothing and the hair well away from the flame.

1 mark for each of any five rules stated with a sound reason.