

AL/2016/28/E-I

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ශ්‍රී ලංකා විභාග දෙපාර්තමේන්තුව ශ්‍රී ලංකා විභාග දෙපාර්තමේන්තුව ශ්‍රී ලංකා විභාග දෙපාර්තමේන්තුව ශ්‍රී ලංකා විභාග දෙපාර්තමේන්තුව ශ්‍රී ලංකා විභාග දෙපාර්තමේන්තුව
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 கல்விப் பொதுத் தராதரப் பத்திர (உயர் தர)ப் பரீட்சை, 2016 ஆகஸ்ட்
 General Certificate of Education (Adv. Level) Examination, August 2016

ගෘහ ආර්ථික විද්‍යාව I
 மனைப் பொருளியல் I
 Home Economics I

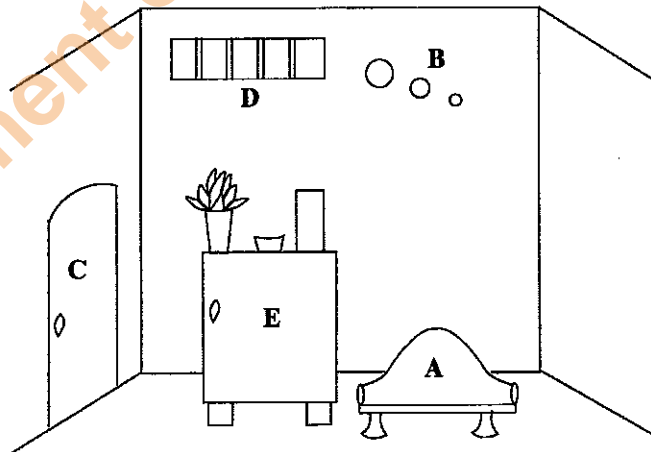
28 E I

පැය දෙකයි
 இரண்டு மணித்தியாலம்
 Two hours

Instructions:

- * Answer all the questions.
- * Write your **Index Number** in the space provided in the answer sheet.
- * Use of calculators is **not** allowed.
- * Read the instructions given on the back of the answer sheet carefully.
- * In each of the questions 1 to 50, pick one of the alternatives from (1), (2), (3), (4), (5) which is **correct** or **most appropriate** and mark your response on the answer sheet with a **cross (x)** in accordance with the instructions given on the back of the answer sheet.

1. The blue print forwarded to build a house was rejected. The reason for the same is that
 - (1) the height of the walls being 9 1/2 feet.
 - (2) 1/15th of the area of a room being kept for doors.
 - (3) the boundary wall being kept as a wall of a room.
 - (4) the area of the master bedroom being 100 sq. ft.
 - (5) 1/7th of the area of a room being kept for windows.
2. From the following, which is the **incorrect** statement regarding planning and organizing a kitchen of a house?
 - (1) There were two doors for the kitchen.
 - (2) The refrigerator was placed to the left of the entrance.
 - (3) The inner surface of the sink was finished with tiles.
 - (4) An electric bulb was fixed at the centre of the ceiling.
 - (5) The gas cylinder was placed under the sink.
3. The following diagram shows the steps taken in organizing and decorating a drawing room.



From the above, rhythm is shown by,

- (1) A. (2) C. (3) A and E. (4) B and D. (5) D and E.

4. 'Intensity' which is a quality of colour is
 - (1) the lightness, the darkness of the colour. (2) the warmness, the coolness of the colour.
 - (3) the brightness, the dullness of the colour. (4) the softness, the roughness of the colour.
 - (5) the advancing, the receding nature of the colour.

[See page two]

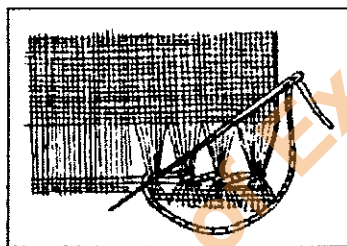
5. An example for a complimentary colour scheme is
 (1) yellow orange, blue purple. (2) blue green, red purple.
 (3) yellow green, blue purple. (4) yellow orange, red purple.
 (5) red orange, yellow green.
6. Household resources are mainly classified as
 (1) physical and non-physical resources. (2) human and physical resources.
 (3) human and non-human resources. (4) physical and non-human resources.
 (5) human and non-physical resources.
7. The bi-metallic strip of an electric iron
 (1) eases the ironing of thick fabrics.
 (2) controls the heat in the iron.
 (3) increases the efficiency of heat conduction in the iron.
 (4) conserves heat when electricity fails.
 (5) is used to earthen the iron.
8. A protein of low biological value is
 (1) elastin. (2) collagen. (3) gelatin. (4) albumin. (5) myosin.
9. Hydrogenation of fats is a process in which
 (1) the amount of essential fatty acids are increased. (2) the number of double bonds are increased.
 (3) a rancid flavour is developed. (4) the solid fats are converted to liquid form.
 (5) the unsaturated fats are made saturated.
10. The percentage of fat in the human body
 (1) is more in boys than in girls. (2) decreases gradually during adulthood.
 (3) is more in females than in males. (4) less in people having allergy.
 (5) is more during infancy.
11. From the following, which is **not** a function of cholesterol in the body?
 (1) Synthesis of enzymes. (2) Synthesis of hormones. (3) Protection of nerve cells.
 (4) Production of bile. (5) Synthesis of vitamin D.
12. A function performed by calcium in the body is
 (1) controlling water balance. (2) transporting oxygen. (3) providing immunity.
 (4) clotting of blood. (5) building muscle tissues.
13. In the group of B vitamins, B₆ is identified as
 (1) Biotin. (2) Folic acid. (3) Thiamine. (4) Niacin. (5) Pyridoxine.
14. Iodine deficiency **does not** cause the condition
 (1) Cheilosis. (2) Mongolism. (3) Cretinism.
 (4) Goitre. (5) Mental retardedness.
15. The vitamin which is connected with the functions such as growth and maintenance of the body, maintenance of a healthy skin and maintenance of mucous membranes is
 (1) vitamin A. (2) vitamin B₁. (3) vitamin B₂.
 (4) vitamin C. (5) vitamin D.
16. Following are some facts mentioned in a note written by a student regarding milk and soya bean.
 A - Soya bean contains complete protein.
 B - Milk is a food item containing carbohydrate.
 C - Tempeh and Tofu are two products of soya.
 D - Milk is a poor source of iron and vitamin C.
 E - Soya bean is a poor source of fat and vitamin A.
 From these, the correct ones are,
 (1) A and E. (2) A, B and C. (3) B, C and D. (4) C and E. (5) C, D and E.
17. A symptom of vitamin C deficiency is
 (1) soreness of the mouth. (2) delaying of wound healing. (3) diarrhoea.
 (4) blurred vision. (5) numbness of feet.

18. From the following, which is the statement related to vitamin C and E?
- (1) unstable to heat. (2) act as antioxidants. (3) fat soluble.
(4) rich in animal food. (5) synthesised in the body.
19. In the Table of Recommended Dietary Allowances (2007), two nutrients whose requirements are represented in milligrams are
- (1) biotin and niacin. (2) vitamin C and folic acid. (3) calcium and iron.
(4) magnesium and vitamin A. (5) thiamine and vitamin B₁₂.
20. A food source containing the type of carotinoid lycopene is
- (1) pumpkin. (2) carrot. (3) papaw. (4) tomato. (5) beet.
21. From the following, which is the correct statement given by students regarding food and nutrition?
- (1) Oxalic acid enhances calcium absorption of the body.
(2) The ratio of hydrogen and oxygen in the composition of fat is 2:1.
(3) Lack of folic acid and niacin causes anaemia.
(4) Protein fibres become hard when cooked under dry heat.
(5) A red precipitate is formed when a solution of sucrose is heated after adding Fehlings A and B.
22. Two food sources which are rich in vitamin B₁₂ are
- (1) rice and milk. (2) gotukola and wheat. (3) fish and meat.
(4) lime and egg. (5) liver and soya bean.
23. Three enzymes that act on protein in food are
- (1) lactase, pepsin and rennin. (2) sucrase, amylase and lipase.
(3) renin, lipase and amylase. (4) maltase, trypsin and peptidase.
(5) peptidase, trypsin and pepsin.
24. In carbohydrate metabolism, at the end of glycolysis, glucose is converted to
- (1) fructose. (2) acetic acid. (3) pyruvic acid.
(4) glycogen. (5) acetyl co-enzyme A.
25. In which of the following two pastry-items, the flour and fat are mixed into the form of bread crumbs during its preparation?
- (1) Eclaires and pastry baskets (2) Cream buns and patties
(3) Patties and eclaires (4) Patties and pastry baskets
(5) Pastry baskets and cream buns
26. Following are some facts taken from a note written by students regarding Chinese rolls.
- A - In cooking, the heat is transferred by conduction and convection.
B - A batter and biscuit crumbs are used as coating.
C - A food which comes under the group of pastries.
D - Cooking involves shallow frying and deep frying.
E - Egg yolk is used in glazing.
- From these, the correct ones are,
- (1) A, B and C. (2) A, B and D. (3) A, C and D. (4) B, C and D. (5) C, D and E.
27. An individual's height and weight are 155 cm and 55 kg respectively. The value of his body mass index is
- (1) 18.9 (2) 20.3 (3) 22.9 (4) 26.1 (5) 30.2
28. From the following statements, which is **not** relevant to the dietary fibre?
- (1) Increases the absorption of iron in the body.
(2) Provides satiety value to the diet.
(3) Increases the absorption of water by the faeces in the intestine.
(4) Hinders the absorption of glucose into the body.
(5) Accelerates the peristalsis in the intestine.

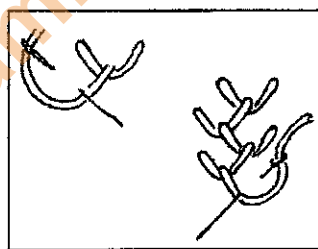
29. Given below are some facts regarding the dietary management of non-communicable diseases.
- A - Deep sea fish is recommended in the diet.
 - B - Not suitable to use reheated oil for frying.
 - C - Bakery items such as pastries and pizza are not suitable.
 - D - Less salt is preferable.
- All these facts are most relevant to
- (1) obesity. (2) diabetes. (3) gastritis.
 - (4) overweightness. (5) heart diseases.
30. Oleic acid is
- (1) an omega-6-fatty acid. (2) an omega-3-fatty acid.
 - (3) a saturated fatty acid. (4) a mono-unsaturated fatty acid.
 - (5) a poly-unsaturated fatty acid.
31. Two groups that are targeted by the Thriposha programme in Sri Lanka are
- (1) pregnant mothers and children of late childhood.
 - (2) lactating mothers and adult females.
 - (3) chronically sick persons and pregnant mothers.
 - (4) infants and elderly.
 - (5) children of early childhood and lactating mothers.
32. Following are some species of micro-organisms.
- A - *Eschericia coli*
 - B - *Streptococcus lactis*
 - C - *Clostridium botulinum*
 - D - *Acetobacter aceti*
 - E - *Helicobacter pylora*
- From them, the ones which are useful in food processing are
- (1) A and B. (2) B and D. (3) B, C and D.
 - (4) C, D and E. (5) D and E.
33. In making dried fish
- (1) high heat is used. (2) water is totally removed.
 - (3) nutritional loss is considerable. (4) exosmosis occur.
 - (5) quality characteristics of the original food are retained.
34. An organic salt used in food preservation is
- (1) Sodium nitrite. (2) Sodium bisulphite. (3) Sodium chloride.
 - (4) Sodium metabisulphite. (5) Sodium benzoate.
35. Given below are some statements given by students regarding child development. Which is the correct statement from them?
- (1) Identical twins are formed when mature ovum is fertilized by two sperms.
 - (2) 1st dose of polio vaccine is given to an infant after completing two months.
 - (3) Training is important for motor development in infancy.
 - (4) Left-handedness is a problematic behaviour shown by children in early childhood.
 - (5) Engaging children below 14 years of age as domestic servants is a delinquent act.
36. From the following, the correct statement related to pre-natal development is
- (1) fertilization could occur within two weeks after ovulation.
 - (2) female reproductive hormones are secreted by the placenta and the ovaries.
 - (3) mother suffering from diabetes lowers the weight of the foetus.
 - (4) the period from 4 months to birth is known as the foetal stage.
 - (5) the expected weight gain of the mother during pregnancy is 6-8 kg.
37. The hormones which stimulate the production and secretion of breast milk are
- (1) oestrogen and oxytocin.
 - (2) prolactin and progesterone.
 - (3) prolactin and oestrogen.
 - (4) oxytocin and prolactin.
 - (5) progesterone and oxytocin.

38. Two diseases that are prevented by the vaccines given to a child under the National Immunization Programme up to 6 months of age are
- (1) Tetanus and mumps.
 - (2) Polio and rubella.
 - (3) Rubella and measles.
 - (4) Hepatitis B and mumps.
 - (5) Tetanus and whooping cough.
39. The **incorrect** statement regarding a child of late childhood is
- (1) behaving in a friendly manner with others.
 - (2) showing curiosity about different matters.
 - (3) expressing temper-tantrums physically.
 - (4) showing jealousy towards others.
 - (5) being active always.
40. The activity of joining matching pictures in early childhood
- (1) develops creative abilities.
 - (2) gives opportunity to express ideas.
 - (3) promotes eye-hand coordination.
 - (4) improves the vocabulary.
 - (5) encourages in drawing.
41. An activity which encourages the gross motor (large muscular) development in a child is
- (1) filling a bottle with water.
 - (2) dancing.
 - (3) constructing a toy.
 - (4) clay modelling.
 - (5) pasting pieces of paper inside a given picture.
42. From the following, which is **not** a factor that influences the emotional development of a child?
- (1) Heredity.
 - (2) Gender.
 - (3) Hormones.
 - (4) Acceptance.
 - (5) Frequent illnesses.
43. Viscose rayon fibres mainly consist of
- (1) Keratin.
 - (2) Cellulose.
 - (3) Sericin.
 - (4) Lignin.
 - (5) Raffinose.

44.



A



B

The above diagrams A and B show respectively

- (1) hemstitching (hem stitch) and fly stitch.
 - (2) herringbone stitch and feather stitch.
 - (3) fly stitch and herringbone stitch.
 - (4) hemstitching (hem stitch) and feather stitch.
 - (5) herringbone stitch and hemstitching (hem stitch).
45. Two instances of using sewing techniques are
- (1) sewing and finishing the opening of shirt and sewing the hem of a dress.
 - (2) sewing the sleeve base of saree jacket and sewing its neckline.
 - (3) fixing the yoke of the shirt and sewing the sleeve base of saree jacket.
 - (4) sewing the sleeve base of shirt and fixing its pocket.
 - (5) sewing the neckline of a saree jacket and finishing the opening of shirt.
46. What is the correct statement from the following?
- (1) Nylon fabrics are damaged by insects and moths.
 - (2) Finishing the neckline with a bias is termed as shaped facing.
 - (3) Pre-preparation should be done to all fabrics before constructing garments.
 - (4) Gassing smoothens the surface of fabrics.
 - (5) Stannous chloride and Carbon tetrachloride are used as agents in dry cleaning.

47. A solvent and a bleach used in removing stains on fabrics are respectively

- (1) vinegar and javelle water. (2) hydrogen peroxide and kerosene oil.
(3) javelle water and lime juice. (4) chalk and hydrogen peroxide.
(5) vinegar and methylated spirit.

48. Following are some statements taken from a note written by a student.

- A - In sewing the saree blouse, the shoulders should be joined after stitching the back neckline and the front neckline.
B - In the warp rib weave, a thick thread is used lengthwise (as the warp yarn) and a fine thread is used crosswise (as the filling yarn).
C - Darts should be stitched from the base to its top.
D - Vertical button holes are used in fastening the opening of the shirt.
E - Only blanket stitch should be used to finish the edge of the motif in applique work.

From the above, the correct statements are

- (1) A and B. (2) A and E. (3) B and C. (4) C and D. (5) D and E.

49. Following are some statements given by students regarding textile technology.

- A - Through carbonizing dirt particles are removed from silk fibres.
B - A strip cut along the selvedge of a fabric is more suitable for a binding.
C - Creping of fabrics is done by mechanical methods as well as by chemical methods.
D - Mordants are used to absorb dyes used on fabrics.
E - Washing soap contain less alkali.

The correct statements from the above are

- (1) A and B. (2) A and C. (3) A, B and E. (4) C and D. (5) C, D and E.

50. When burning, which of the following fibres give the smell of burning papers?

- (1) Cotton fibres and silk fibres. (2) Silk fibres and rayon fibres.
(3) Linen fibres and nylon fibres. (4) Nylon fibres and silk fibres.
(5) Linen fibres and rayon fibres.

* * *

Department of Examinations Sri Lanka

Department of Examinations Sri Lanka

ශ්‍රී ලංකා විභාග දෙපාර්තමේන්තුව ශ්‍රී ලංකා විභාග දෙපාර්තමේන්තුව ශ්‍රී ලංකා විභාග දෙපාර්තමේන්තුව ශ්‍රී ලංකා විභාග දෙපාර්තමේන්තුව ශ්‍රී ලංකා විභාග දෙපාර්තමේන්තුව
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අධ්‍යයන පොදු සහතික පත්‍ර (උසස් පෙළ) විභාග, 2016 අගෝස්තු
 கல்விப் பொதுத் தராதரப் பத்திர (உயர் தர)ப் பரீட்சை, 2016 ஆகஸ்ட்
 General Certificate of Education (Adv. Level) Examination, August 2016

ගෘහ ආර්ථික විද්‍යාව II
 மனைப் பொருளியல் II
 Home Economics II

28 E II

පැය තුනයි
 மூன்று மணித்தியாலம்
 Three hours

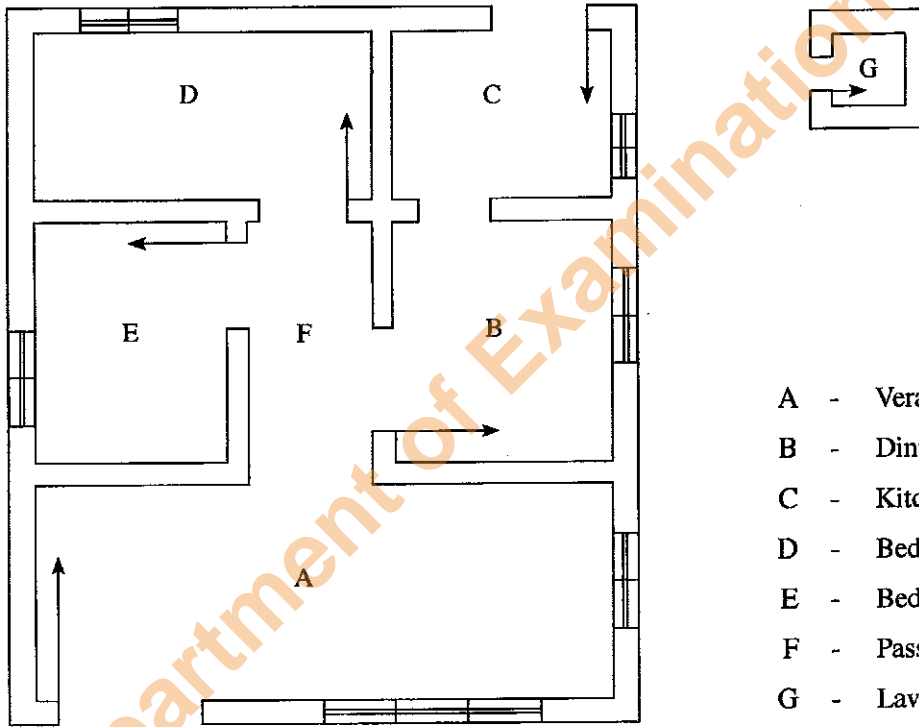
Instructions:

- * Answer **three** questions from **Part I** including question No. 1 and answer **four** questions from **Part II** including question No. 5.

Part I

(Answer **three** questions including question No. 1 and **two** others.)

1. Given below is a sketch of the floor plan of a house situated in a spacious land in a rural area. A family of five members, including two boys and a girl in the primary school age, live in the house shown by the plan. The parents intend to make renovations in the house since they are supplied with water service and electricity recently.



- A - Verandah and living room
 B - Dining room
 C - Kitchen
 D - Bedroom
 E - Bedroom
 F - Passage
 G - Lavatory

- (i) Considering the family needs, explain how you could make **two** changes in the plan so as to have a more comfortable living.
 (ii) Show, with a diagram, the placement of furniture in 'D' of the given floor plan.
 (iii) What are the points that should be emphasised in making flower arrangements for
 (a) a corner of the living room
 (b) the centre of the dining table of this house?
 (iv) Draw a design suitable to be applied to decorate the curtains in a bed room of the house. Give the colour scheme used for it.
 (v) Explain the steps to be followed in attaching and finishing the edge of the curtains with a frill.

2. (i) Explain the processing of cotton fibres in fabric manufacture.
 (ii) (a) Give reasons for the
 • temporary hardness
 • permanent hardness
 of water.
 (b) Describe how temporary hardness and permanent hardness of water could be removed.
 (iii) Explain how
 (a) soap
 (b) surface tension
 (c) friction
 affect in cleaning fabrics.
 (iv) (a) Write **two** qualities which are improved in fibre/fabric by mercerization/calendering.
 (b) Describe the process of mercerization/calendering.
3. (i) A new couple has selected one bed roomed annex for living. Explain the points that they should consider in selecting furniture for this house.
 (ii) Describe how a baby room could be decorated using a monochromatic colour scheme.
 (iii) (a) Name the parts of the household electrical circuit. Write the functions of each of them.
 (b) Describe the safety measures that should be followed in using electrical appliances.
4. (i) Management of refuse has become a current issue. Discuss the measures to be taken at home level to minimize this issue.
 (ii) Explain the
 (a) working
 (b) maintenance
 of an electric food mixer.
 (iii) (a) Name the measurements needed to draft the basic bodice block to construct garments for an adolescent girl.
 (b) Calculate **three** measurements needed to draft the front basic bodice block.
 (c) Write in sequence how the sleeve of a saree blouse could be attached to the bodice.

Part II

(Answer **four** questions including question No. 5 and **three** others.)

5. Vidura who is of good nutritional status is the elder child in a family, attends an early childhood development centre. He does not show friendliness towards peers and shows aggressive behaviour in the classroom. Vidura has a brother of five months. Since the parents are employed, the grandmother also lives with them to look after the children. Mother is keen in planning and preparing the meals creatively for the family.
 (i) What are the factors that determine the good nutritional status of Vidura?
 (ii) Discuss the reasons that could have affected the above mentioned behaviour of Vidura.
 (iii) Explain the points that have considered by the mother in planning and preparing meals to fulfil the nutritional needs of Vidura.
 (iv) How should an early childhood development centre be physically organized?
 (v) Comment on the importance of exclusive breast feeding for the five months old infant.
6. Discuss the following.
 (i) The activities done in an early childhood development centre for the language development of children.
 (ii) Considering the age of a child when selecting toys.
 (iii) The role of the school in bringing up an adolescent to be a good citizen.
 (iv) The child brought up in an authoritarian family environment.

7. (i) Three processes are involved in the body, in the utilization of nutrients of the food which are consumed.
- (a) Name these processes.
 - (b) Identify one of the above processes.
- (ii) (a) Describe the nutritional value of cereals and pulses.
- (b) Compare the pasteurization and sterilization of milk.
- (iii) Explain the functions performed by eggs in the preparation of the following foods.
- (a) cake
 - (b) custard
 - (c) pancake
8. (i) (a) Mention **three** stages in the life cycle where a high amount of energy is required per day.
- (b) Give reasons for the requirement of high amount of energy for each of these stages.
- (ii) Gastritis and diabetes are two non communicable diseases prevalent in Sri Lanka. Comment how the food consumption pattern of a person affect these diseases.
- (iii) Following are some preserved foods.
- (a) curd
 - (b) pickle
 - (c) Potato Dosi
 - (d) Dried Jak
- Explain how the steps followed in processing of each of these foods affect their preservation.
9. (i) Discuss,
- (a) The socio-economic factors affecting the prevalence of nutritional problems in Sri Lanka.
 - (b) The steps taken at school level to improve the nutritional status of children.
- (ii) Explain,
- (a) Risk factors of pregnancy.
 - (b) Factors affecting the physical development of children of late childhood.

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