S6 Home Economics Practice Paper

S6 | Home Economics | Time: 75 minutes | Total: 100 marks | 24 questions

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Part 1 Rent and Housing Costs (17 marks)

Read each case and show your working.

1. A flat costs $12,000 per month. Find the yearly rent, and the monthly household income if rent is 30% of income.

2. The same flat is let on a two-year lease with a 5% rise in year two. Find the year-two monthly rent and the total rent over two years.

3. Management fee is $1,800 a month and rates are $1,500 a quarter. Find the average monthly rates and the total monthly housing cost with rent of $12,000.

4. The affordability cap is 30% of income. With income of $40,000, find the cap, the amount by which the actual cost exceeds it, and the cost as a percentage of income (2 decimal places).

Part 2 Utilities and Appliance Energy (17 marks)

Electricity is charged at $1.2 per kWh.

5. An air conditioner draws 1.5 kW and runs 8 hours a day for 30 days a month. Find the monthly energy use (kWh) and the bill.

6. Switching to a Grade 1 model cuts energy use by 25%. Find the new consumption, the monthly kWh and money saved, and the annual saving.

7. A 3.0 kW water heater runs 40 minutes a day. Find the daily and monthly (30 days) energy use and the monthly bill.

8. The flat uses 520 kWh a month, of which air conditioning takes 360 kWh. Find the share (1 decimal place) and the remaining use, and suggest two ways to save energy.

Part 3 Food Budget and Nutrient Needs (17 marks)

Take a month as 30 days.

9. A family of four has a monthly food budget of $6,000. Find the food cost per person per day.

10. The daily protein requirement is 0.8 g per kg of body weight. How much protein does a 60 kg adult need, and how many eggs (6.3 g protein each) would supply it (give a whole number and explain)?

11. Daily energy need is 2,000 kcal, split 30% breakfast, 40% lunch and 30% dinner. Find the energy of each meal.

12. The same ingredient costs $38 for 500 g at a supermarket and $36 for 600 g at a wet market. Find the price per 100 g for each and the difference when buying 2 kg.

Part 4 Textiles and Garment Care (17 marks)

The questions concern garment making, washing and fibre content.

13. A garment uses 1.8 m of fabric at $45 per metre, plus $12 of trims and $60 of labour. Find the cost and the selling price at a 30% markup.

14. A cotton garment shrinks 3% when washed at 40 C. Its length was 70 cm; find the new length and explain why the care label asks for a low temperature.

15. A washing machine uses 0.9 kWh per load and runs 5 times a week. Find the energy use over four weeks and the cost at $1.2 per kWh.

16. A 300 g garment is 65% polyester and the rest cotton. Find the mass of each fibre.

Part 5 Consumer Credit and Savings (16 marks)

The questions concern credit cards, instalments and savings plans.

17. A credit card balance is $8,000 at 30% a year. Find the monthly interest and explain the effect of paying only the minimum.

18. The savings goal is $30,000 at $2,500 a month, ignoring interest. How many months are needed, and with 2% a year compounded monthly would it take longer or shorter?

19. An appliance costs $6,000 or 12 instalments of $540. Find the total paid, the total interest and the interest as a percentage of the price (1 decimal place).

20. Monthly income is $40,000 and the savings target is 20% of income. Find the target amount; if only $6,000 is actually saved, find the actual rate and the shortfall in percentage points.

Part 6 Consumer Rights and Sustainable Living (16 marks)

The questions concern refunds, carbon footprint, food waste and second-hand clothing.

21. An online purchase costs $480 and returns carry a 5% handling fee. Find the fee and the refund, and explain the purpose of a cooling-off period.

22. Each wash uses 0.9 kWh and every kWh emits 0.7 kg of carbon dioxide. Find the emissions per wash and per week (5 washes).

23. A household throws away 6 kg of food waste a month. Find the yearly total, and the amount left after a 40% reduction.

24. A new garment costs $300 and the same item second-hand costs $90. Find the percentage saved and the yearly saving on eight items.
