

**HOME SCIENCE – HIGHER SECONDARY FIRST YEAR
PUBLIC EXAM – ANSWER KEY**

I. CHOOSE THE CORRECT ANSWER :-

15 X 1 = 15

1. (d) Miss Dorothy Pearson
2. (a) Intelligence Quotient
3. (b) October 15th
4. (c) Cereals
5. (b) Shelf – life
6. (a) Tamil Nadu
7. (d) 4
8. (a) Anaemia
9. (d) 37
10. (a) Skill
11. (b) Decision Making
12. (a) Connect
13. (b) Egg
14. (d) Anger
15. (a) Both (A) and (R) are true and (R) is the correct explanation of (A)

PART – II

16. Home Science :- (2 Marks)

Home Science is the science of managing a home. It is a study that focuses on family members and the achievement of satisfaction through thoughtful effective and constructive use of resources.

17. Myelination:- (2 Marks)

It is the deposition of fatty substances around nerve cells which helps in conduction of electrical impulses.

18. First Aid Box Contents:- (Any 7) 2 Marks

First aid manual, Band aid, Scissors, Lotion, Roll Bandages, Antiseptic wipes, Syringes, Guaze, Thermometer, Contact lenses and Gloves.

19. Heat treatment is given before freezing the food:- (Each 1 mark)
- In vegetables, enzyme action may produce undesirable effects on flavour and texture during freezing.
 - The enzymes must be destroyed by heating before the vegetables are frozen.
20. Deficiency condition of Rama:- (Each 1 mark)
- Rama is having bow legs and knock knees due to Calcium (or) Vitamin D deficiency.
 - This condition is known as Rickets.
21. Balanced Diet:- (2 marks)
- A Balanced diet is one which provides all the nutrients in required amounts and proper proportions so that the need for calories, proteins, minerals, vitamins and other nutrients are adequately met.
22. Four advantages of Savings :- Each one ½ mark. (2marks)
- Secure future
 - Family goals
 - Meeting emergencies
 - Raise standard of living
23. Importance of Self awareness:- (Any two) 2 marks
- Build your self esteem and confidence.
 - To choose a suitable career which will satisfy you.
 - Make priorities based on what is important to you.
24. Four teaching aids which will be used in the classroom :- (Each ½ mark) 2 marks
- Black board
 - White board
 - Flash cards
 - Maps

PART – III

25. Various Disciplines of Home Science :- (3 marks)
1. Foods and Nutrition
 2. Family Resource Management

3. Textiles and Clothing
 4. Human Development
 5. Communication and Extension
26. Types of Visual Impairment :- (3 marks)
1. Congenital Blindness
 2. Acquired Blindness
 3. Nutritional Blindness
27. Basic Four Food Groups :- (3 marks)
1. Cereals, millets and Pulses
 2. Milk, and animal products
 3. Fruits and vegetables
 4. Fats, oils and nuts
28. Three Functions of Fat:-
1. Fats are a source of energy. 1 mark
 2. Each gram of fat yields 9 kilo calories. 1 mark
 3. Act as Insulators against heat and cold. 1 mark
29. Points to be considered while planning lunch for School going Children :-
1. It should meet one third of the day's nutritional requirements.
 2. At least one serving of green leafy vegetables should be included.
(Point-1&2 - 1 ½ mark)
 3. Food stuffs providing good quality protein like egg, milk or milk products like paneer or curd would improve overall protein quality
 4. One fruit or vegetable salad may be included every day.
(Point – 3&4 - 1½ mark)
30. Methods of Communication :- (3 marks)
1. Verbal Communication
 2. Written Communication
 3. Electronic Communication
 4. Visual Communication
 5. Body Language

31. Preservative Methods of Food Items :- (Any three)

- (a) Milk – Pasteurization
- (b) Tomato – Freezing, Canning and Drying
- (c) Banana – High Concentration of Sugar
- (d) Lemon – High Concentration of Salt and Oil
- (e) Grapes – Freezing and Drying

32. Symptoms of Fear:- (3 marks)

- 1. Sweating
- 2. Difficulty in breathing
- 3. Chocking sensation and Rapid Heart beat
- 4. Pain in Chest
- 5. Hot flushes or chills

33. Various types of Simplifying work:- (3 marks)

- 1. Keeping body parts in alignment
- 2. Using muscles effectively
- 3. Doing the work in Rhythmic motion.

PART – IV

34. (a) Home Science is both “Art and Science” :- (5 Marks)

- 1. It teaches the art of using resources so that a harmonious whole someness is achieved and an overall pleasant effect is created.
- 2. It provides the scientific basis of techniques involved in making a home happy healthy and beautiful place to live in.
- 3. It provides the ability to prepare various recipes with required nutrients for a particular age group and serve it in a very attractive manner in a pleasant environment so as to motivate consumption of healthy foods and feeling of well being.
- 4. It draws a major portion of its content from pure Science disciplines such as Physics, Chemistry, Bio chemistry, Physiology and Biology.
- 5. It is an interdisciplinary field with much scope as it encompasses the salient features and components of both Science and Arts courses.

(b)

(5 Marks)

| Age | Development |
|---|--|
| 1 st month | Holds chin up |
| 2 nd month | Holds chest up Rolls from side to back |
| 3 rd month | Reaches and misses object |
| 4 th month | Sits with support |
| 5 th month | Sits on lap and grasp Objects |
| 6 th month | Sits on high chair and grasp dangling object |
| 7 th month | Sits alone and starts to crawl |
| 8 th month | Stands with help |
| 9 th month ---- ---- ---- ---- | Stands holding furniture |
| 15 th month | Walks alone |

35. (a) Steps in minimizing Loss of nutrients :-

1. Wash vegetables before cutting them
2. Peel vegetables thinly
3. If vegetables are to be cooked in water, put them into boiling water
4. Use just enough water for cooking. Use the extra water to cook some other food.
5. Do not use cooking soda.

(b) Test for doneness for Jam:- (Explain in detail – 5 marks)

1. Sheet test
2. Bubble test
3. Plate test
4. Fork test

36. (a) Water soluble Vitamins :-

(5 marks)

| Sl.No. | Vitamins | Functions | Food Sources | Deficiency disease |
|--------|---|------------------------------------|---|--|
| 1. | Vitamin C | Wound Healing | Citrus fruits like orange, guava and lemon | Scurvey (2 ¹ / ₂ marks) |
| 2. | Vitamin B ₁ (or) Thiamin | It enhances growth in human beings | Liver, lean pork, whole or enriched grams and legumes | Beri Beri (2 ¹ / ₂ marks) |

(b)

(5 marks)

| Age | Vaccine |
|--------------------------------|--|
| Soon after birth | Hepatitis B 1 st dose, OPV 1 st dose, BCG |
| 6 weeks | Hepatitis B 2 nd dose, DPT 1 st dose, OPV 2 nd dose |
| 10 weeks | DPT 2 nd dose, OPV 3 rd dose |
| 14 weeks | DPT 3 rd dose, OPV 4 th dose |
| 6 weeks, 10 weeks and 14 weeks | OPV 5 th dose, Hepatitis B 3 rd dose |
| 9 months to 12 months | Measles |
| 15 to 18 months | MMR |
| 16 to 24 months | DPT, OPV 1 st Booster |
| 2 years | Typhoid vaccine |
| 5-6 years | DPT, OPV 2 nd Booster |

37. (a) Types of Goals :-

(i) According to the number of groups :-

(Explain (i) – 2 marks)

(a) Individual goals

(b) Group goals

(ii) According to duration for achievement of goals:- (Explain (ii) – 3 marks)

- (a) Short term goals
- (b) Intermediate goals.
- (c) Long term goals.

(b) Advantages and Disadvantages of E-Learning:-

Advantages:- (2¹/₂ marks)

- 1. Standardized learning
- 2. Self-paced learning
- 3. Flexible means of assessment
- 4. No travel costs
- 5. Cost-effective
- 6. No classroom accommodation

Disadvantages :- (2¹/₂ marks)

- 1. Requires computer access
- 2. Requires Internet access
- 3. Requires basic computer skills
- 4. Does not suit all learners
- 5. Development cost of good -quality bespoke material can be high
- 6. Not all material may be compatible with underlying learning management system

38. (a) Principles of Communication :- (Explain – 5 marks)

- 1. The principle of Clarity
- 2. The principles of Brevity
- 3. The principles of Integrity
- 4. The principles of Simplicity
- 5. The principles of Timeliness
- 6. The principles of Compass

(b) Maslow's Theory of Motivation :-

(Explain – 5 marks)

1. Physiological needs
 2. Safety needs
 3. Love and Belongingness
 4. Self-esteem needs
 5. Achievement needs
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