

**HUMAN NUTRITION
INTERNAL QUESTION BANK**

MULTIPLE CHOICE QUESTIONS

- 1. The energy value of carbohydrates per gram is:** a) 9 kcal
b) 7 kcal
c) 4 kcal
d) 2 kcal

Correct answer: c) 4 kcal

- 2. Which nutrient provides the highest energy per gram?** a) Protein
b) Carbohydrate
c) Fat
d) Vitamins

Correct answer: c) Fat

- 3. The energy value of proteins per gram is:** a) 4 kcal
b) 9 kcal
c) 7 kcal
d) 2 kcal

Correct answer: a) 4 kcal

- 4. Alcohol provides how much energy per gram?** a) 4 kcal
b) 7 kcal
c) 9 kcal
d) 2 kcal

Correct answer: b) 7 kcal

B. Estimation of Energy Value of Foods

Bomb Calorimeter

- 5. Bomb calorimeter measures:** a) Digestible energy
b) Metabolizable energy
c) Gross energy
d) Net energy

Correct answer: c) Gross energy

- 6. In a bomb calorimeter, food is burned in the presence of:** a) Nitrogen
b) Carbon dioxide
c) Oxygen
d) Hydrogen

Correct answer: c) Oxygen

- 7. The principle of bomb calorimeter is based on measurement of:** a) Volume change
b) Heat released during combustion
c) Color change
d) Pressure change

Correct answer: b) Heat released during combustion

Benedict's Oxygen Calorimeter

- 8. Benedict's oxygen calorimeter estimates energy value by measuring:** a) Heat directly
b) Oxygen consumption
c) Carbon dioxide production
d) Nitrogen balance

Correct answer: b) Oxygen consumption

- 9. Benedict's calorimeter is mainly used to measure energy expenditure of:** a) Foods
b) Animals and humans
c) Fuels
d) Enzymes

Correct answer: b) Animals and humans

C. Factors Affecting Energy Requirements

10. Which of the following increases energy requirement? a) Old age

- b) Sedentary lifestyle
- c) Growth and pregnancy
- d) Sleep

Correct answer: c) Growth and pregnancy

11. Energy requirement is maximum during: a) Infancy

- b) Old age
- c) Middle age
- d) Adolescence

Correct answer: d) Adolescence

12. Heavy physical work mainly increases: a) BMR

- b) SDA
- c) Energy requirement
- d) RDA of vitamins

Correct answer: c) Energy requirement

13. BMR is highest in: a) Females

- b) Children
- c) Elderly
- d) Starving individuals

Correct answer: b) Children

14. Which hormone increases BMR? a) Insulin

b) Thyroxine

c) Cortisol

d) Estrogen

Correct answer: b) Thyroxine

15. BMR decreases during: a) Fever

b) Pregnancy

c) Starvation

d) Growth

Correct answer: c) Starvation

16. SDA refers to: a) Energy used during sleep

b) Energy used for digestion and absorption

c) Energy stored as fat

d) Energy used during exercise

Correct answer: b) Energy used for digestion and absorption

17. SDA is highest for which nutrient? a) Fat

b) Carbohydrate

c) Protein

d) Vitamins

Correct answer: c) Protein

18. RDA stands for: a) Recommended Daily Allowance

- b) Required Dietary Amount
- c) Recommended Dietary Allowance
- d) Required Daily Average

Correct answer: c) Recommended Dietary Allowance

19. RDA is derived based on: a) BMR only

- b) Average requirement + safety margin
- c) Energy value of food
- d) Body weight only

Correct answer: b) Average requirement + safety margin

20. RDA varies with all EXCEPT: a) Age

- b) Sex
- c) Climate
- d) Blood group

Correct answer: d) Blood group

FILL IN THE BLANKS:

1. During pregnancy, blood volume increases by about _____ %.

Answer: 40–50%

2. The hormone responsible for maintenance of pregnancy is _____.

Answer: Progesterone

3. Cardiac output increases during pregnancy to meet the needs of the _____ and _____.

Answer: Mother and fetus

4. Increased glomerular filtration rate during pregnancy leads to increased _____ output.

Answer: Urine

5. Expansion of uterus during pregnancy causes increased pressure on the _____.

Answer: Urinary bladder

6. The developing baby during the first 8 weeks is called an _____.

Answer: Embryo

7. From the 9th week till birth, the developing baby is called a _____.

Answer: Fetus

8. At the end of the first trimester, most major organs are _____.

Answer: Formed

9. Rapid increase in fetal weight occurs mainly during the _____ trimester.

Answer: Third

10. Average birth weight of a full-term baby is about _____ kg.

Answer: 3 kg

11. Normal weight gain during pregnancy is about _____ to _____ kg.

Answer: 10 to 12 kg

12. Excessive weight gain during pregnancy may lead to _____ diabetes.

Answer: Gestational

13. Low weight gain during pregnancy can cause _____ birth weight baby.

Answer: Low

14. Pregnancy-induced hypertension is also known as _____.

Answer: Preeclampsia

15. Iron deficiency during pregnancy leads to _____.

Answer: Anemia

16. Energy requirement increases by about _____ kcal/day during pregnancy.

Answer: 300 kcal/day

17. Protein requirement increases for _____ growth and tissue formation.

Answer: Fetal

18. Increased calcium intake is required for development of _____ and teeth.

Answer: Bones

19. Folic acid deficiency during pregnancy causes _____ tube defects.

Answer: Neural

20. Iron requirement increases to support increased _____ volume.

Answer: Blood

LONG QUESTION AND ANSWERS

1) Explain about Energy value of foods

2) write about the factors affecting BMR and SDA

3) Mention the Nutritional requirements of adult woman

4) Explain the basic principles of meal planning

5) Write about the physiological changes and growth of fetus during pregnancy

