

Chapter -4

MULTIPLE CHOICE QUESTIONS (MCQs)

1. According to the text, middle childhood refers to children between the ages of:

- a) 2-6 years
- b) 6-12 years
- c) 12-18 years
- d) 18-21 years

Answer: b) 6-12 years

2. The term 'progressive' in the definition of development signifies that changes are:

- a) Moving backward
- b) Leading forward rather than backward
- c) Happening haphazardly
- d) Stopping after some time

Answer: b) Leading forward rather than backward

3. According to Hurlock, development consists of a progressive series of changes of an orderly, coherent type towards the goal of:

- a) Growth
- b) Maturity
- c) Learning
- d) Heredity

Answer: b) Maturity

4. The age between 7-11 years is termed as:

- a) Early childhood
- b) Infancy
- c) Late childhood and pre-adolescent stage
- d) Babyhood

Answer: c) Late childhood and pre-adolescent stage

5. Freud called the latency period which age group?

- a) 2-6 years
- b) 6-12 years
- c) 7-11 years
- d) 12-21 years

Answer: c) 7-11 years

6. The age between 7-11 years is also called the:

- a) Pre-gang age
- b) Gang age
- c) Sensorimotor stage
- d) Formal operations stage

Answer: b) Gang age

7. Which of the following is a characteristic of gang age?

- a) Children focus only on family
- b) Children avoid making friends
- c) Children love to cluster around friends who have common interests
- d) Children have no interest in activities

Answer: c) Children love to cluster around friends who have common interests

8. According to the stages of development given by Hurlock, middle childhood is from:

- a) 2 to 6 years
- b) 6 to 12 years
- c) 12 to 21 years
- d) 21 to 40 years

Answer: b) 6 to 12 years

9. Growth is described as:

- a) Internal in nature
- b) A qualitative change
- c) An external and quantitative change

d) Continuous throughout life

Answer: c) An external and quantitative change

10. Development is described as:

- a) External and measurable
- b) Internal, continuous and qualitative
- c) Stopping after maturation
- d) Related only to heredity

Answer: b) Internal, continuous and qualitative

11. At what age do girls begin to grow faster than boys?

- a) 6-7 years
- b) 7-8 years
- c) 9-10 years
- d) 11-12 years

Answer: c) 9-10 years

12. An average 12-year-old child measures approximately:

- a) 137 cm in height and 27 kg in weight
- b) 147 cm in height and 37 kg in weight
- c) 157 cm in height and 47 kg in weight
- d) 127 cm in height and 32 kg in weight

Answer: b) 147 cm in height and 37 kg in weight

13. During middle childhood, children annually grow:

- a) 1-2 inches in height and 1 kg in weight
- b) 2-3 inches in height and 2 kg in weight
- c) 3-4 inches in height and 3 kg in weight
- d) 4-5 inches in height and 4 kg in weight

Answer: b) 2-3 inches in height and 2 kg in weight

14. By the onset of puberty (11-12 years), a child normally has how many of the thirty-two permanent teeth?

- a) Twenty
- b) Twenty-four
- c) Twenty-eight
- d) Thirty

Answer: c) Twenty-eight

15. The last four teeth, called wisdom teeth, arise during:

- a) Middle childhood
- b) Adolescence
- c) Early adulthood
- d) Infancy

Answer: b) Adolescence

16. According to Piaget, the Concrete Operations stage occurs between the ages of:

- a) 0-2 years
- b) 2-6 or 7 years
- c) 7-11 or 12 years
- d) 12-adult

Answer: c) 7-11 or 12 years

17. The major accomplishment of the Concrete Operations stage is:

- a) Object permanence
- b) Symbolic representation
- c) Understanding of principles such as conservation; logical thought emerges
- d) Several forms of logical thought

Answer: c) Understanding of principles such as conservation; logical thought emerges

18. Which stage of syntactic development involves modifiers joined to topic words to form declarative

questions, negative and imperative structures?

- a) Sentence like word
- b) Modification
- c) Structure
- d) Categorization

Answer: b) Modification

19. The development of the ability to produce recognisable speech, i.e., pronounce the sounds and words, is called:

- a) Semantic Development
- b) Phonological Development
- c) Grammar Development
- d) Syntactic Development

Answer: b) Phonological Development

20. Children from higher socio-economic groups usually use longer, more complex sentences due to:

- a) Better genetics
- b) Exposure to literature and language
- c) More physical activity
- d) Better nutrition

Answer: b) Exposure to literature and language

SHORT ANSWER QUESTIONS WITH ANSWERS

1. What is a milestone according to the text?

A milestone is a significant stage or an event in the development of something. Milestones of development with respect to physical, social, emotional, cognitive and language development take place in children.

2. What is the difference between growth and development?

Growth refers to an increase in the size and weight of a child. It is external, measurable, quantitative, stops after sometime, and is related to heredity. Development is more comprehensive and includes physical, social, intellectual, emotional, moral and other aspects. It is internal, continuous, qualitative, indirectly measured, related to the environment, and refers to learning.

3. According to Hurlock, what is the definition of development?

According to Hurlock, development consists of a progressive series of changes of an orderly, coherent type towards the goal of maturity. 'Progressive' means changes lead forward, 'orderly and coherent' means development does not happen haphazardly but has a definite relationship between each stage.

4. What is the 'gang age' and what are its characteristics?

The gang age is the age between 7-11 years, also called late childhood. During this age, children look outward and their focus shifts from family to friends. They love to cluster around friends who have common interests. Characteristics include forming gangs with names, using secret signals, wearing insignia, and engaging in group activities.

5. What are the major stages of development according to Elizabeth B. Hurlock?

The major stages are: Prenatal (conception to birth), Period of the neonate (birth to 2 weeks), Infancy (2 weeks to 1 year), Babyhood (1 to 2 years), Early childhood (2 to 6 years), Middle childhood (6 to 12 years), Adolescence (12-21 years), Early adulthood (21 to 40 years), Middle age (40 to 60 years), and Old age (60 years and older).

6. What are the aspects of each stage of development?

Each stage has the following aspects: Physical development, Social development, Emotional development, Cognitive development, Language development, and Motor development.

7. What are the characteristics of middle childhood (6-12 years)?

Characteristics include: Eye and hand coordination gets well-developed; by age 9-10, girls grow faster

than boys; children develop separate interests; they feel the need for belonging to a gang and having best friends of the same age and sex; peers become important; attention span is long; they develop new understanding of concepts; and they like to make decisions on their own.

8. What is the average height and weight of a 12-year-old child?

An average 12-year-old measures 147 cm in height and 37 kg in weight.

9. What changes occur in body proportions during middle childhood?

Although the head is still proportionally too large, some facial disproportions disappear. Arms and legs grow much longer and become proportional to the trunk and head. The body becomes sleeker and developed, and the skeletal system grows.

10. What happens to teeth during middle childhood?

At the beginning of middle childhood, the milk teeth (primary) begin to fall off, eventually being replaced by a permanent set of teeth. Molars are the first set to emerge without replacing primary teeth. Children usually develop their second set of molars around age 12 to 13. By the onset of puberty, a child normally has twenty-eight of the thirty-two permanent teeth.

11. What factors affect the physical development of a child?

Factors include: Heredity factors (potentials like height, weight, body structure); healthy and nutritive food, comfortable clothing and a home that offers safety and protection; protection provided by adult members; a healthy environment with good habits; immunization schedule; physical activities and exercise; and the sex of the individual.

12. What is social development according to the text?

Social development refers to the ability of a child to behave in a manner acceptable to the society in which he/she lives. It involves learning the values, knowledge and skills that enable children to relate to others effectively and contribute positively to family, school and community.

13. How does social development change from early childhood to late childhood?

Early childhood is called a 'pre-gang age' where children step out from home, start making friends and develop deep bonds. Late childhood is known as the 'Gang age' where the child's focus shifts from family to friends, and children love to cluster around friends who have common interests.

14. What are the characteristics of childhood gangs?

Characteristics include: Gangs identify themselves by names from the street, books, comics or movies; members use secret signals, passwords and private language; they use insignia, caps or armbands to identify members; meeting places minimize adult interference; activities include group play, creating things, exploring, and engaging in forbidden activities.

15. What is emotional development?

Emotional development means the ability to control emotions and express them in ways acceptable to society. It involves learning what feelings and emotions are, understanding how and why they happen, recognising one's feelings and those of others, and developing effective ways of managing them.

16. What are the common pleasant and unpleasant emotions of childhood?

Common pleasant emotions include affection, curiosity, joy, pleasure, delight and happiness. Common unpleasant emotions include fear, shyness, embarrassment, worry, anxiety, anger, jealousy and grief.

17. What is cognitive development according to the text?

Cognitive development refers to the ability of the child to think and find a solution to problems. It involves developing skills such as problem-solving, reasoning, creating, conceptualising, categorising, remembering, and planning.

18. What are the four stages of Piaget's theory of cognitive development?

UNIT - 2: GROWTH AND DEVELOPMENT DURING MIDDLE CHILDHOOD

CHAPTER - 4 MILESTONES OF DEVELOPMENT

1. What do you mean by physical development?
The four stages are: Sensorimotor (0-2 years), Preoperational (3-6 or 7 years), Concrete Operations (7-11 or 12 years), and Formal Operations (12-adult).

A. Physical development is the process that starts in humans from infancy and continues into late adolescence, concentrating on gross and fine motor skills as well as puberty. Physical development involves developing control over body, particularly muscles and physical co-ordination.

19. Differentiate between growth and development and what are its basic components?

A. Growth

1. Growth is external in nature
2. Growth stops after sometime
3. Growth can be directly
4. It refers to maturity
5. It is related to heredity.
6. It is a quantitative change.

Development

1. Development is internal.
2. Development is continuous.
3. Development is indirectly
4. It refers to learning
5. It is related to environment.
6. It is a qualitative change.

Language development means the ability to communicate through the use of meaningful words and sentences. The three basic components are: (i) Phonological development – ability to produce recognisable speech; (ii) Semantic Development – understanding of the meaning of spoken or written language; (iii) Development of Grammar – Rules indicating how words can be combined into meaningful sentences.

3. What are the factors that affect the physical development of a child?

--- A. The following factors affect the physical development of a child.

1. Healthy and nutritive food.
2. Comfortable clothing.
3. A home that offers safety and protection.
4. The protection provided by the adult members
5. A healthy environment

20. What are developmental tasks and what are the milestones for 6-12 years?

Developmental tasks are milestones which an individual has to master at a specified stage in life before reaching the next stage. For 6-12 years, tasks include: learning physical skills for games, building a wholesome attitude towards oneself, learning to get along with age mates, learning an appropriate sex role, developing skills in reading, writing and calculating, developing concepts for everyday living, achieving personal independence, developing attitudes towards social groups, and learning sex differences and sexual modesty.

9. Immunization schedule should be followed.

4. Write a short note on growth.

A. Growth is the progressive increase in the size of a child or part of the body of a child. It increases in body size, length, height and weight. It is a physical change and stops at a certain age. It is external in nature. Growth is one of the parts of developmental process. Development in its quantitative aspect is termed as growth. The changes produced by growth can be measured.

5. What is development?

A. Development refers to the overall changes in the individual. It is progressive acquisition of various skills or abilities. It is internal and a continuous process. The rate of speed of development varies at different ages of the child. Development implies improvement in functioning and behaviour which brings qualitative changes which are difficult to measure. Development describes changes in the organism as a whole and does not list changes in part. It is a continuous process. It does not end with attainment of maturity.

6. What are the different stages of development in the life of an individual?

A. The life of an individual can be divided into the following stages-

behaviour which brings qualitative changes which are difficult to measure. Development describes changes in the organism as a whole and does not list changes in part. It is a continuous process. It does not end with attainment of maturity.

6. What are the different stages of development in the life of an individual?

A. The life of an individual can be divided into the following stages-

- Pre-natal (from conception to birth)
- Neo-natal (birth to 10-14days). Infancy(2weeks-1year)
- Babyhood (1 year to 2 years)
- Early childhood (2 years to 6years)
- Late childhood (6years to 12 years)
- Adolescence (from 12 years to 21 years)
- Adulthood (from 21years to 40 years).Middle age(40 to 60 years).Old age(60 years and older)

7. What are developmental milestones? Name the factors that influence developmental milestones?

A. Developmental milestones are a set of functional skills or age-specific task that most children can do at a certain age range. They help to measure the developmental progress in several important areas. Developmental milestones can involve physical, social, emotional, cognitive, linguistic skills and motor development.

Factors influencing the developmental milestones are –

1. Genetic information inherited from parents and contained in chromosomes.
2. Position in family and siblings can impact on the emotional, personal and social development.
3. Home environment including parents and siblings.
4. Experience of child in school and society.

8. List three body types commonly seen during childhood.

A. Endomorphic or flabby, fat body build.
Mesomorphic or sturdy, muscular body build.
Ectomorphic or relatively thin body build.

9. Define social development.

A. "Social development refers to the ability of a child to behave in a manner acceptable to the society in which he or she lives".

10. What is emotional development of a child?

A. Emotional development means the ability to control emotions and express them in ways acceptable to the society.

11. What is meant by cognitive development in children?

A. Cognitive development refers to the ability of the child to think and find solutions to problems.

12. What do you understand by development tasks?

A. "Development tasks are those milestones which an individual has to master at the specified stage in life, before he reaches the next stage of

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A. Cognitive development refers to the ability of the child to think and find solutions to problems.

12. What do you understand by development tasks?

A. "Development tasks are those milestones which an individual has to master at the specified stage in life, before he reaches the next stage of life."

13. Discuss the areas in which physical development takes place during the late childhood.

A. Physical development in late childhood are

- i) Height – The annual increase in height is 2 to 3 inches. The average eleven-year-old girl is 58 inches tall, and the average boy of the same age is 57.5 inches tall.
- ii) Weight: Increase in weight ranges from 3 to 5 more pounds annually. The average eleven-year-old girl weight 88.5 pounds and the average boy of the same age weights 85.5 pounds.
- iii) Body proportion : Head is proportionally too large for the rest of the body. Some of the facial disproportions disappear as the mouth and jaw becomes larger, the forehead broadens and flattens, the lips fill out, nose acquires more shape. The trunk elongates and becomes slimmer, the neck becomes longer, the chest broadens, the abdomen flattens, the arms and legs lengthen, the hands and feet grow larger, but at a slow rate.
- iv) Because of disproportion of the body, homeliness increases in children .Careless grooming and tendency to wear clothes like those of peers contribute to homeliness.
- v) Muscle-fat Ratio:- Fat tissue develops more rapidly than muscle tissue which has a marked growth spurt beginning at puberty .Children of endomorphic builds have more fat than muscle tissue while the reverse is true of mesomorphic builds.

Ectomorphic do not have predominance of either. So they look thin, and slim-

Teeth :-By the onset of puberty, a child normally has twenty-eight or thirty-two permanent teeth. The last four wisdom teeth erupt during adolescence.

14. List the social development in children between six and twelve years of age.

A. Social development describes how we interact with family members and others outside the family. Children between six and twelve years of age show the following changes.

As the child enters school and comes in contact with other children family picnic and parties become a bore. Individual games give way to group games. Friend circle gradually widens. At this stage social

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As the child enters school and comes in contact with other children family picnic and parties become a bore. Individual games give way to group games. Friend circle gradually widens. At this stage social consciousness develops rapidly. Becoming socialized is one of the major developmental task. In school, the child enters the 'gang age'. It plays a dominant role in socialization. It helps the child to learn how to get along with age mates, helps to develop a rational conscience, to learn appropriate social attitudes, to achieve personal independence. The attitudes are formed and values are recognized in the similar manner as the peer group do. This gives a feeling of belongingness to a group. Peer-group provides an opportunity to understand the values of rules regulations and restriction which parents impose on a child. Peers provide a feeling of emotional security in terms of similarity in thoughts, problems and ideas. The behaviour of the child is modified and moulded to suit the behaviour of a group. The most important pattern of social behaviour developed in late childhood includes susceptibility to social approval and disapproval, suggestibility to group influence and

contra-suggestibility to adult influences, competition, good sportsmanship, responsibility, social insight, social discrimination prejudice and sex antagonism.

Q15. Mention any five developmental task observed in children aged between 6-12 yrs.

Ans. 1. Learning physical skills necessary for ordinary games.

2. Building wholesome attitude towards oneself as a growing organism.

3. Learning to get along with age mates.

4. Learning an appropriate masculine or feminine sex role.

5. Developing fundamental skill in reading writing and calculating.

Chapter -5

MULTIPLE CHOICE QUESTIONS (MCQs)

1. Family is described as the first and most important:

- a) Educational institution
- b) Socialising agency
- c) Religious institution
- d) Economic unit

Answer: b) Socialising agency

2. Authoritarian parents are characterised as:

- a) High in demandingness and high in responsiveness
- b) High in demandingness and low in responsiveness
- c) Low in demandingness and high in responsiveness
- d) Low in demandingness and low in responsiveness

Answer: b) High in demandingness and low in responsiveness

3. Authoritative parents are:

- a) Strict, parent-centred and non-negotiable
- b) Warm and responsive but set no rules
- c) High in both demandingness and responsiveness
- d) Low in both responsiveness and demandingness

Answer: c) High in both demandingness and responsiveness

4. Permissive parents are:

- a) High in demandingness and low in responsiveness
- b) Low in demandingness and high in responsiveness
- c) Low in both demandingness and responsiveness
- d) High in both demandingness and responsiveness

Answer: b) Low in demandingness and high in responsiveness

5. Rejecting/Neglecting parents are:

- a) High in both responsiveness and demandingness
- b) High in demandingness but low in responsiveness
- c) Low in both responsiveness and demandingness
- d) High in responsiveness but low in demandingness

Answer: c) Low in both responsiveness and demandingness

6. According to growing evidence, which parenting style yields the most beneficial effects?

- a) Authoritarian
- b) Permissive
- c) Rejecting/Neglecting
- d) Authoritative

Answer: d) Authoritative

7. Children with authoritarian parents often display:

- a) Competence socially and cognitively
- b) Negativism and frustration
- c) Insensitivity and ill-mannered behaviour
- d) Unsettled patterns of behaviour

Answer: b) Negativism and frustration

8. Children with permissive parents are often seen to be:

- a) Competent both socially and cognitively
- b) Negativistic and frustrated

- c) Quite insensitive and ill-mannered
- d) Settled in their behaviour

Answer: c) Quite insensitive and ill-mannered

9. Children whose parents show a rejecting or neglecting style tend to develop:

- a) Competent social skills
- b) Unsettled patterns of behaviour
- c) Strong self-esteem
- d) Positive self-concept

Answer: b) Unsettled patterns of behaviour

10. Peer groups are characterised by children who belong to approximately the same:

- a) Age group, gender and social status
- b) Economic background only
- c) Religious beliefs
- d) Academic performance

Answer: a) Age group, gender and social status

11. The first peer interactions usually happen in:

- a) Home or in the neighbourhood
- b) School or in the neighbourhood
- c) Playground or in the park
- d) Religious institutions

Answer: b) School or in the neighbourhood

12. Which of the following is a purpose of peer groups?

- a) Satisfies the need of belonging to a group
- b) Replaces the role of family completely
- c) Discourages social interaction
- d) Prevents emotional development

Answer: a) Satisfies the need of belonging to a group

13. Peers influence which aspects of development?

- a) Only physical development
- b) Only moral development
- c) Social, cognitive and psychological development
- d) Only language development

Answer: c) Social, cognitive and psychological development

14. Which of the following is a trait of a child who bullies?

- a) Shows empathy
- b) Physically weaker
- c) Shy and passive
- d) Has a positive self-concept

Answer: d) Has a positive self-concept

15. Which of the following is a trait of a child who gets bullied?

- a) Domination
- b) Impulsive and gets angry easily
- c) Has a positive self-concept
- d) Shy, sensitive and passive

Answer: d) Shy, sensitive and passive

16. According to the text, what happens when teachers ignore children's emotions and social development?

- a) Children become more socially skilled
- b) Children become academically gifted but struggle in daily life due to lack of self-esteem and social skills
- c) Children develop stronger self-esteem
- d) Children become more empathetic

Answer: b) Children become academically gifted but struggle in daily life due to lack of self-esteem and social skills

17. Which of the following is a suggestion for parents and teachers to improve communication skills with children?

- a) Ask dead-end questions
- b) Discourage talking
- c) Listen patiently
- d) Ignore non-verbal messages

Answer: c) Listen patiently

18. Children between 6-12 years old experience:

- a) A decrease in social interaction
- b) An increase in social interaction
- c) No change in social interaction
- d) Complete isolation from peers

Answer: b) An increase in social interaction

19. According to the text, what should parents NOT do?

- a) Give love and security
- b) Compare children with other children
- c) Give children some responsibility
- d) Praise children for good behaviour

Answer: b) Compare children with other children

20. In school, student councils help children to:

- a) Avoid taking responsibility
- b) Establish rules of conduct and follow them
- c) Ignore social interactions
- d) Depend completely on teachers

Answer: b) Establish rules of conduct and follow them

SHORT ANSWER QUESTIONS WITH ANSWERS

1. What is the role of family in a child's development?

The family is the first and most important socialising agency. In the family, children learn what human relationship is. Relationships with family members, parental attitudes, treatment from other family members, parental expectations, and child training methods determine the personality of the child.

2. What is parental demandingness?

Parental demandingness is the extent to which parents are strict or controlling and confront their children (often angrily) when their children do not meet their expectations.

3. What is parental responsiveness?

Parental responsiveness is the extent to which parents are involved in and supportive of their children's activities. Parents high on this dimension listen actively to their children, respond to their requests, show warmth and focus on their children's concerns.

4. What are the four categories of parenting styles?

The four categories are: (1) Authoritarian parents – high in demandingness and low in responsiveness; (2) Authoritative parents – high in both demandingness and responsiveness; (3) Permissive parents – high in responsiveness but low in demandingness; and (4) Rejecting/Neglecting parents – low in both responsiveness and demandingness.

5. Describe Authoritarian parenting style.

Authoritarian parents are high in demandingness and low in responsiveness. They are strict, parent-centred, autocratic, believe in adhering to rules, expect obedience and are non-negotiable.

6. Describe Authoritative parenting style.

Authoritative parents are high in both demandingness and responsiveness. They establish rules for their children but show a great deal of interest and responsiveness. They are assertive and believe in discussion, explanation and negotiation. They promote independence but set balanced boundaries.

7. Describe Permissive parenting style.

Permissive parents are high in responsiveness but low in demandingness. They are warm and responsive but they set no rules or standards for their children and do not hold them accountable for their actions. They have no control over their child and completely indulge in a child's demands, often spoiling them.

8. Describe Rejecting/Neglecting parenting style.

Rejecting/Neglecting parents are low in both responsiveness and demandingness. They just do not seem to care what their children do or what they become. There is emotional withdrawal from their children. They are neglectful and lack warmth.

9. Which parenting style yields the most beneficial effects and why?

Growing evidence suggests that an authoritative style may yield the most beneficial effects. Children whose parents adopt this approach are generally competent both socially and cognitively.

10. What role should parents play in their child's development?

Parents should give much love and security. They must not criticise their child for unusual behaviour, should share and discuss problems patiently, never compare them with other children, give considerable time to their children, not compel them to do things they don't want, give them some responsibility, allow them to do things independently, set disciplinary rules, give rewards to reinforce positive behaviour, and use meaningful punishments for wrong behaviour.

11. What is a peer group?

Peer groups are characterised by children who belong to approximately the same age group, gender and social status and who share common interests. The first peer interactions usually happen in school or in the neighbourhood.

12. What are the purposes of peer groups?

Peer groups satisfy the need of belonging to a group. Peers are preferred as compared to socialising with others. They influence social, cognitive and psychological development. They also influence the development of morals and values. Interaction with peers provides instruction on acceptable behaviour.

13. What positive influences do peer groups have on children?

Positive influences include the child getting and giving attention and acceptance, developing standards that serve as guidelines, and healthy competition, which encourages the child to grow beautifully.

14. What negative influences can peer groups have on children?

Negative influences include teasing, physical aggression and rejection. Some children are dominant and others are submissive, which can cause a bad influence on them. Some children unknowingly bully weaker kids.

15. What are the traits of a child who bullies?

Traits include: Domination; impulsive and gets angry very easily; shows little empathy; has a positive self-concept; physically stronger; breaks rules; and anti-social behaviour.

16. What are the traits of a child who gets bullied?

Traits include: Physically weaker; shows fear of pain; poor physical coordination; shy, sensitive and passive; anxious, insecure and unhappy; and has a negative self-concept.

17. What is the role of schools in a child's development?

School is the next home for children. Apart from academics, children learn lessons of compassion, respect, empathy and integrity. They learn to connect with others in a caring manner. They become problem solvers and solution-seekers. Extracurricular activities help develop interests, build self-esteem and shape future academic and professional life.

18. Why is it important for teachers to pay attention to children's emotions and social development?

When teachers ignore children's emotions and social development, this can often lead to adults who are very academically gifted but struggle in their daily lives due to lack of self-esteem and/or social skills.

19. What are some suggestions for parents and teachers to improve communication skills with children?

Suggestions include: Avoid dead-end questions; encourage talking; listen patiently; extend conversations; share thoughts; reflect feelings; listen to non-verbal messages; and help in clarifying and relate experiences of your own.

20. How does the family's role change from early childhood to middle childhood?

Between the time when children enter school and the time they reach adolescence, the family plays a crucial role in socialisation, although its role is not as predominant as in the early childhood years. In middle childhood, teachers, peers, coaches, and others outside the family have more contact with the child and exercise varying degrees of influence.

1. Name the different styles of parenting.

The different styles of parenting are:

- A. 1. Authoritarian parents
2. Authoritative parents
2. Permissive parents
3. Neglecting parents

2. Explain the term conflict during adolescent stage.

A. Conflict means disagreement. Incompatibility, resulting from having little in common from matters from different frames of reference or from parents refusal to recognize the developmental needs of adolescence which leads to poor adjustment and frictional home climate. Pressure put on the adolescent to conform to adult expectations disrupt family harmony. Parent adolescent conflicts most often centre on authority, autonomy and responsibilities where as conflict with friends centre on issues of interpersonal behaviour or relational difficulties.

3. Mention the factors that lead to conflict between adolescents and their parents.

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- A. 1. During adolescence period many physical and psychological changes occur in the way one thinks, looks and behaves. Adolescents want to have an independent life of their own. This leads to conflict between them and their parents.

2. When an adolescent shows some form of unacceptable behaviour parents reaction is that of rejection. This leads to conflict.

3. Conflict increases when children reach puberty. They like to be left to themselves. They do not want to be guided by parents at every step.

4. Sometimes they get carried away by the thoughts and ideas of their peer group. If these thoughts and ideas do not match with their parents, conflict arises.

5. Adolescents become quite moody. If the parents want to make them to do certain things for which they do not have a mood, it would lead to conflict.

6. Interference from family members leads to conflict.

4. Discuss the role of school in the process of socialization from childhood to adolescence.

A. In schools, teachers create a condition for proper behaviour and habits of adolescence.

They make each child in a class feel responsible for what he does.

In a school the students council are organised. The students establish the rules of conduct and follow them.

School gives the student practical experience of living in the society.

It inculcates in them a spirit of co-operation. They learn to help those

5. Adolescents become quite moody. If the parents want to make them to do certain things for which they do not have a mood, it would lead to conflict.
6. Interference from family members leads to conflict.
4. Discuss the role of school in the process of socialization from childhood to adolescence.
- A. In schools, teachers create a condition for proper behaviour and habits of adolescence.
- They make each child in a class feel responsible for what he does.
- In a school the students council are organised. The students establish the rules of conduct and follow them.
- School gives the student practical experience of living in the society.
- It inculcates in them a spirit of co-operation. They learn to help those who are in trouble. Various curricular or games activities, outdoor picnics widen their knowledge and make them more active and perfect. School inculcates the quality of leadership by engaging them in different school activities.

5. How does the positive and negative peer pressure influence the teens?

Positive peer pressure :-

- A. The ability to develop healthy friendship and peer relationship depends on a teens self-identity self-esteem and self-reliance.

The peer pressure can mobilise teen's energy, motivate for success and encourage him to confirm to healthy behaviour.

Peers can and do act as positive role models. They can and do demonstrate appropriate social behaviour.

Negative peer pressure:-

The need for acceptance, approval and belonging is vital during the teen years. Teens who feel isolated or rejected by their peers are more likely to engage in risky behaviour in order to fit in a group.

In such situations peer pressure can impair good judgment and fuel risk-taking behaviour, draw a teen away from the family and positive influences. It will push the child into dangerous activities.

Once influenced, teen may continue to slide into problem with law, substance abuse, school problem, authority defiance and gang problems etc.

6. How can good communication skill be developed between an adult and an adolescent?
- A. Parents play an essential role in building adolescents communication skill because children spend more time and have a deeper involvement with their parent than any other adult. Parents control many of the contacts a teen has with society and the society contact with the teen.

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Adults, parents and teachers set a powerful example of good or poor communication skill.

Some suggestions for improving communication skills with children are

1. Avoid dead-end-questions
2. Encourage talking
3. Listen patiently
4. Extend conversation
5. Share thoughts
6. Reflect feelings
7. Listen to non-verbal messages
8. Help, clarify and relate experience
9. Trust the teen and the teen must trust his parents, so sensitive Issues of adolescence can be discussed with greater comfort.
10. Suggest ways to say no.

Chapter -6

MULTIPLE CHOICE QUESTIONS (MCQs) WITH ANSWERS

1. A learning disability is a disorder that inhibits the ability to:

- a) See and hear properly
- b) Process and retain information
- c) Walk and run
- d) Eat and sleep

Answer: b) Process and retain information

2. Learning disorders are also called:

- a) Processing disorders
- b) Genetic disorders
- c) Physical disorders
- d) Visual disorders

Answer: a) Processing disorders

3. Dyslexia is a learning disability that affects:

- a) Writing abilities
- b) Mathematical concepts
- c) Reading abilities
- d) Motor tasks

Answer: c) Reading abilities

4. Dyscalculia is a learning disability that affects:

- a) Reading abilities
- b) Writing abilities
- c) Number-related concepts and mathematical calculations
- d) Motor planning

Answer: c) Number-related concepts and mathematical calculations

5. Dysgraphia is a learning disability that affects:

- a) Reading abilities
- b) Writing abilities
- c) Mathematical abilities
- d) Listening abilities

Answer: b) Writing abilities

6. Dyspraxia affects an individual's ability to:

- a) Read and comprehend
- b) Plan and process motor tasks
- c) Solve mathematical problems
- d) Understand spoken language

Answer: b) Plan and process motor tasks

7. The word 'Dys' means:

- a) Difficulty
- b) Malfunction
- c) Disorder
- d) Disability

Answer: b) Malfunction

8. Which of the following is the most common form of all learning disabilities?

- a) Dysgraphia

- b) Dyscalculia
- c) Dyslexia
- d) Dyspraxia

Answer: c) Dyslexia

9. ADHD stands for:
- a) Attention Deficit Hyperactivity Disorder
 - b) Attention Disorder Hyperactivity Dysfunction
 - c) Active Deficit Hyperactivity Disorder
 - d) Attention Deficit Hearing Disorder

Answer: a) Attention Deficit Hyperactivity Disorder

10. ADHD is distinguished by a child's:
- a) Excessive amount of activity
 - b) Inability to read
 - c) Difficulty in writing
 - d) Poor mathematical skills

Answer: a) Excessive amount of activity

11. According to the text, learning disabilities are also connected to:
- a) Physical handicaps
 - b) Processing deficits
 - c) Mental retardation
 - d) Emotional disturbance

Answer: b) Processing deficits

12. Sensory disabilities in which a person has difficulty understanding language despite normal hearing and vision are called:
- a) Non-verbal Learning Disabilities
 - b) Auditory and Visual Processing Disorders
 - c) Dyslexia
 - d) Dyscalculia

Answer: b) Auditory and Visual Processing Disorders

13. Non-verbal Learning Disabilities originate in which hemisphere of the brain?
- a) Left hemisphere
 - b) Right hemisphere
 - c) Frontal lobe
 - d) Occipital lobe

Answer: b) Right hemisphere

14. The signs and symptoms of learning disabilities are most often diagnosed between:
- a) Grade 1 and 3
 - b) Grade 4 and 6
 - c) Grade 7 and 9
 - d) Grade 10 and 12

Answer: b) Grade 4 and 6

15. A study by the National Institutes of Health showed that what percentage of young students at risk for reading difficulties became average or above-average readers after receiving early help?
- a) 50 percent
 - b) 57 percent
 - c) 67 percent
 - d) 77 percent

Answer: c) 67 percent

16. Which of the following is a sign of a learning disability in a preschool-age child?

- a) Speaks earlier than most children
- b) Excellent vocabulary growth
- c) Speaks later than most children
- d) Easily follows directions

Answer: c) Speaks later than most children

17. Which of the following is a sign of a learning disability in children in Grades 1-4?

- a) Confuses basic words (run, eat, want)
- b) Excellent memory for facts
- c) Strong pencil grip
- d) Good coordination

Answer: a) Confuses basic words (run, eat, want)

18. Which of the following is NOT a sign of a learning disability in children in Grades 5-8?

- a) Avoids reading aloud
- b) Difficulty with handwriting
- c) Excellent at recalling facts
- d) Trouble understanding body language

Answer: c) Excellent at recalling facts

19. According to the text, parents of children with learning disabilities may display:

- a) Acceptance and hope
- b) Rejection, frustration, denial, over-protection and loss of hope
- c) Complete understanding
- d) Only positive attitudes

Answer: b) Rejection, frustration, denial, over-protection and loss of hope

20. Remedial educators offer children various ways of:

- a) Traditional learning
- b) Multisensory learning
- c) Theoretical learning
- d) Rote learning

Answer: b) Multisensory learning

SHORT ANSWER QUESTIONS WITH ANSWERS

1. What is a learning disability?

A learning disability is a disorder that inhibits the ability to process and retain information. It is a neurological condition which affects the brain's ability to send, receive, and process information. It is important to note that these children are not mentally slow learners but there is a disconnect between receiving and processing of information.

2. What are the four main types of learning disabilities discussed in the text?

The four main types are: (1) Dyslexia – difficulty in reading; (2) Dysgraphia – learning disability that affects writing abilities; (3) Dyscalculia – inability to learn number-related concepts; and (4) Dyspraxia – affects an individual's ability to plan and process motor tasks.

3. What is Dyslexia?

Dyslexia is the most common form of all learning disabilities. It is a language-based disability in which a person has trouble understanding words, sentences, or paragraphs. People with dyslexia often have problems with processing or understanding what they read or hear.

4. What is Dysgraphia?

Dysgraphia is a learning disability that affects the physical act of writing. People find it hard to form letters and write within defined space. Many have handwriting that is uneven and inconsistent, or write very slowly. It can also affect the ability to remember the motor patterns of letters.

5. What is Dyscalculia?

Dyscalculia is a learning disability that affects the ability to grasp and solve math concepts. People with dyscalculia often have difficulty manipulating numbers in their head, remembering steps in formulas and equations, and mainly have a difficult time solving arithmetic problems.

6. What is ADHD?

ADHD or Attention Deficit Hyperactivity Disorder is a disorder that causes children to lose focus on tasks very easily. They have difficulty paying attention and staying on a task. It is distinguished by the child's excessive amount of activity, including constant fidgeting, non-stop talking, moving around, and trouble controlling their temper. ADHD is not a learning disability but can cause people to struggle with learning.

7. What are Auditory and Visual Processing Disorders?

Auditory and Visual Processing Disorders are sensory disabilities in which a person has difficulty understanding language despite normal hearing and vision. These processing deficits make it hard for students to distinguish and remember important information needed to succeed.

8. What is a Non-verbal Learning Disability?

Non-verbal Learning Disability is a neurological disorder which originates in the right hemisphere of the brain, causing problems with visual-spatial, intuitive, organisational, evaluative and holistic processing functions.

9. Why are learning disabilities referred to as "hidden disabilities"?

Generally, people with learning disabilities are of average or above-average intelligence (IQ). But there often appears to be a gap between the individual's potential and actual achievement. The person looks perfectly normal and seems to be very bright and intelligent, yet may be unable to demonstrate the skill level expected from someone of a similar age.

10. What are some signs of a learning disability in a preschool-age child?

Signs include: Speaks later than most children; pronunciation problems; slow vocabulary growth; difficulty rhyming words; trouble learning numbers, alphabet, days of the week, colours, shapes; extremely restless and easily distracted; trouble interacting with peers; difficulty following directions; and fine motor skills slow to develop.

11. What are some signs of a learning disability in children in Grades 1-4?

Signs include: Slow to learn the connection between letters and sounds; confuses basic words; makes consistent reading and spelling errors including letter reversals; transposes number sequences; slow to remember facts; impulsive; unstable pencil grip; trouble learning about time; and poor coordination.

12. What are some signs of a learning disability in children in Grades 5-8?

Signs include: Reverses letter sequences; slow to learn prefixes, suffixes, root words; avoids reading aloud; trouble with appropriate word usage; difficulty with handwriting; awkward pencil grip; avoids writing assignments; slow in recalling facts; difficulty making friends; and trouble understanding body language and facial expressions.

13. What are some signs of a learning disability in high school students and adults?

Signs include: Continues to spell incorrectly; avoids reading and writing tasks; trouble summarising; trouble with open-ended questions; weak memory skills; difficulty adjusting to new settings; works slowly; poor grasp of abstract concepts; pays too little or too much attention to details; and misreads information.

14. What is the role of a remedial educator?

The remedial educator offers the child various ways of multisensory learning such as audio, visual, kinaesthetic, etc., to stimulate learning. Also, repetitive practices in areas of difficulty help the child partially overcome them.

15. What is sensory integration therapy?

Sensory integration therapy involves exposing children to stimulation in a structured and repetitive manner. It is mostly physical in nature and related to developing the five senses and adapting the brain to react to sensations more efficiently. Occupational therapists and speech therapists help children with sensory processing issues.

16. What is the role of parents in helping children with learning disabilities?

Parents can help by encouraging their strengths, knowing their weaknesses, understanding the educational system, working with professionals, and learning about strategies for dealing with specific difficulties. They should lower their expectations and strengthen the social support network.

17. What negative attitudes may parents display toward a child's diagnosis of learning disability?

Parents may display rejection, frustration, denial, over-protection, and loss of hope. They may find it difficult to adapt and find such situations burdensome to deal with. They often lack proper knowledge and guidelines to deal with children with such difficulties.

18. What is the role of schools in accepting and being sensitive towards children with learning disabilities?

Schools should hold awareness programs for teachers, parents and students to identify children with learning disabilities as soon as possible. Early identification facilitates treatment. At the school level, concessions should be granted like late submission of notebooks, leniency in deduction of marks for spelling and grammatical mistakes. At the board level, concessions like getting a reader-based questions should be given.

19. What is the role of peers in accepting children with learning disabilities?

Children need to understand that their friends with such needs are not dumb or stupid; they only need help with specific difficulties. Through class talks, children can be made aware of the difficulties these kids face. Teachers should explain that giving extra time or a reader is like giving spectacles to a child with poor vision.

20. What is the importance of early intervention for children with learning disabilities?

If parents, teachers, and other professionals discover a child's learning disability early and are able to provide the right help, it can give the child a chance to develop skills needed to lead a successful and productive life. A National Institutes of Health study showed that 67 percent of young students at risk for reading difficulties became average or above-average readers after receiving help in the early grades.

CH – 6: LEARNING DISABILITIES IN CHILDREN

1. Why is 'learning disability' referred to as a 'hidden disability'?
- A. Generally, people with learning disabilities are of average or above-average intelligence (IQ). But there often appears to be a gap between the individual's potential and actual achievement. This is why learning disabilities are referred to as 'hidden disabilities'.
2. Write short notes on Dyslexia.
- A. Dyslexia is the most common form of all learning disabilities. It is a language-based disability in which a person has trouble understanding words, sentences or paragraphs. Dyslexia may also be referred to as a reading disability or reading disorder. Students cannot distinguish between same sounding words. Other issues relate to fluency, spelling, comprehension and more.
3. Write short notes on Dysgraphia.
- A. Dysgraphia is related to the physical act of writing. It is a writing disability where people find it hard to form letters and write within a defined space. Typically, people with dysgraphia cannot visualize letters and do not possess the ability to remember the major patterns of letters.
4. Write short notes on Dyscalculia.
- A. Dyscalculia is a learning disability that affects the ability to grasp and solve math concepts. People with dyscalculia mainly have a difficult time solving arithmetic problems. Dyscalculia can range from an ability to order numbers correctly and extend to limited strategies for problem-solving.
5. Write short notes on ADHD.
- A. ADHD or Attention Deficit Hyperactivity Disorder is a disorder that causes children to lose focus on tasks very easily. They have a difficulty paying attention and staying on a task. ADHD causes people to not put the needed attention into the required task.
6. What are Auditory and non-verbal learning disabilities?
- A. Auditory and Visual Processing Disorders: Sensory disabilities in which a person has difficulty understanding language despite normal hearing and vision.
Non-verbal Learning Disabilities: A neurological disorder which originates in the right hemisphere of the brain, causing problems with visual-spatial, intuitive, organizational, evaluative and holistic processing functions.
7. What are the signs to be looked for the preschool-age child to identify the learning disabilities in them?
- A. The signs to look for are:
 - Speaks later than most children.
 - Pronunciation problems.
 - Difficulty rhyming words.
 - Trouble interacting with peers.
 - Fine motor skills slow to develop.
8. Define learning disabilities. Describe the main four learning disabilities in brief.
- A. A learning disability is a disorder that inhibits the ability to process and retain information. It is a neurological condition which affects the brain's ability to send, receive, and process information. A child with a learning disability may have difficulties in reading, writing, speaking, listening, understanding mathematical concepts, with general comprehension. Learning disabilities include a group of disorders such as dyslexia (difficulty in reading), dyspraxia (individual's ability to plan and process motor tasks), dyscalculia (individual's inability to learn number related concepts) and dysgraphia (learning disability that affects writing abilities). Each type of disorder may coexist with another.
9. What are some characteristics seen in a child with ADHD?

- A. ADHD is distinguished by the child's excessive amount of activity. This may include constant fidgeting, non-stop talking, moving around, problems with doing quiet activities, trouble controlling their temper, and more.
10. What is the role of parents, schools and peers in accepting and being sensitive towards children with learning disabilities?
- A. Through class talks children can be made aware of the difficulties these kids face. Children with learning disabilities often show frustration since the efforts they put in do not come out to be as fruitful as others. This frustration is usually in the form of physical aggression which is not taken too well by the peers. Teachers and school counselors can intervene to tackle such situations. Since children with learning disabilities get some concessions during examination, the other kids will find it unfair. At such times, teachers should explain to the children that giving extra time or giving a reader or writer to the child is like giving a spectacle to a child with poor vision. To keep up to the level of the peers, these concessions are necessary. Spreading awareness and being accepting to kids with a learning disability is a necessity in today's time.

Chapter -7

Multiple Choice Questions (MCQs) -

1. What is a balanced diet?

- A) Diet containing only proteins and fats
- B) Diet containing carbohydrates, proteins, vitamins, minerals, water, and fiber in adequate amounts and correct proportions
- C) Diet containing only fruits and vegetables
- D) Diet containing only cereals and pulses

Answer: B

2. Which of the following is NOT a macronutrient?

- A) Proteins
- B) Carbohydrates
- C) Vitamins
- D) Fats

Answer: C

3. How many servings of bread, cereals, rice, and pasta are recommended in the Healthy Eating Pyramid?

- A) 2-3 servings
- B) 3-5 servings
- C) 6-11 servings
- D) 2-4 servings

Answer: C

4. Which nutrient is the primary source of food energy?

- A) Proteins
- B) Fats
- C) Carbohydrates
- D) Vitamins

Answer: C

5. Which of the following is a rich source of Vitamin C?

- A) Amla
- B) Milk
- C) Rice
- D) Butter

Answer: A

6. What is the main function of proteins in the body?

- A) To supply energy
- B) To build and repair tissues
- C) To regulate body temperature
- D) To transport oxygen

Answer: B

7. Which mineral is essential for the formation of haemoglobin?

- A) Calcium
- B) Iron
- C) Zinc

- D) Magnesium

Answer: B

8. Which food group should be used sparingly according to the Healthy Eating Pyramid?

- A) Vegetable Group
- B) Fruit Group
- C) Fats, Oils, and Sweets
- D) Milk, Yogurt and Cheese

Answer: C

9. What is the recommended daily water intake in the Healthy Eating Pyramid?

- A) 2-4 servings
- B) 6-8 servings
- C) Minimum of 8 servings
- D) 3-5 servings

Answer: C

10. Which vitamin helps in the absorption of calcium?

- A) Vitamin A
- B) Vitamin C
- C) Vitamin D
- D) Vitamin E

Answer: C

11. Which of the following is a good source of dietary fiber?

- A) Milk
- B) Eggs
- C) Bran (wheat, oat and rice)
- D) Butter

Answer: C

12. What is the function of Vitamin C in the body?

- A) To build bones
- B) To help in healing wounds and absorption of iron
- C) To regulate body temperature
- D) To form enzymes

Answer: B

13. Which group of people requires more nutrients due to physical labour?

- A) Office workers
- B) School-going children
- C) Carpenters
- D) Elderly persons

Answer: C

14. Which food group includes chicken, liver, fish, egg, and meat?

- A) Cereals and Millets

- B) Pulses and Legumes
- C) Milk and Meat Products
- D) Fruits and Vegetables

Answer: C

15. Which nutrient is composed of amino acids?

- A) Carbohydrates
- B) Fats
- C) Proteins
- D) Vitamins

Answer: C

16. What is the RDA of Vitamin D for Indians according to ICMR 2010?

- A) 100 IU
- B) 200 IU
- C) 400 IU (10 µg)
- D) 800 IU

Answer: C

17. Which of the following is NOT a characteristic of a balanced diet?

- A) Helps control body weight
- B) Increases disease susceptibility
- C) Improves blood sugar levels
- D) Facilitates mental alertness

Answer: B

18. Which vegetable group is rich in carotenoids?

- A) Starchy vegetables
- B) Dark green vegetables
- C) Dry beans and peas
- D) Other vegetables

Answer: B

19. What is the recommended protein intake for a sedentary man according to ICMR?

- A) 40 g/day
- B) 60 g/day
- C) 78 g/day
- D) 55 g/day

Answer: B

20. Which fat is recommended for its beneficial properties for the cardiovascular system?

- A) Butter
- B) Ghee
- C) Virgin olive oil
- D) Vanaspati

Answer: C

20 Short Answer Questions with Answers

Q1. Define a balanced diet.

Ans: A balanced diet is one which contains carbohydrates, proteins, vitamins, minerals, water, and fiber in adequate amounts and correct proportions required for healthy growth and activity.

Q2. What are macronutrients? Give examples.

Ans: Macronutrients are nutrients required by the body in large amounts. They include proteins, carbohydrates, fats, and water.

Q3. Why do adolescents require more nutrients than school-going children?

Ans: Adolescents require more nutrients because they are in a rapid growth phase with increased metabolic demands, and their bodies are developing physically and hormonally.

Q4. List any four characteristics of a balanced diet.

Ans: Four characteristics of a balanced diet are:

1. It helps in controlling body weight.
2. It increases exercise capacity.
3. It improves blood sugar levels.
4. It helps in proper growth and increases immunity.

Q5. What is the role of carbohydrates in the body?

Ans: Carbohydrates supply food energy, fuel oxidation or storage as glycogen, and help the body use other nutrients.

Q6. Why are fats essential for the body?

Ans: Fats supply energy in concentrated form, supply essential fatty acids, and aid in the transportation and absorption of fat-soluble vitamins.

Q7. What is the function of calcium in the body?

Ans: Calcium helps build bones and teeth, helps in the clotting of blood, and helps muscles and nerves function properly.

Q8. Why is dietary fiber important?

Ans: Dietary fiber prevents diseases of the digestive tract, helps prevent constipation, haemorrhoids, and diverticulosis, and promotes healthy digestion.

Q9. What is the best way to consume vegetables to get maximum vitamins and minerals?

Ans: The best way is to eat them raw in salads. If boiled, the cooking water should be used for soups or purees as many water-soluble vitamins are lost in the water. Steaming also retains most nutrients.

Q10. Why should sugary foods be consumed in moderation?

Ans: Sugary foods provide little or no nutrition and excessive consumption can lead to weight gain and tooth decay. They are considered a superfluous food group.

Q11. What are the five major food groups?

Ans: The five major food groups are:

1. Cereals, roots and tubers
2. Pulses and legumes
3. Milk and meat products
4. Fruits and vegetables
5. Fats and sugars

Q12. What is the RDA of iron for adult men according to ICMR?

Ans: The RDA of iron for adult men is 17 mg/day.

Q13. What is the function of Vitamin A in the body?

Ans: Vitamin A helps in growth and development, protects against night blindness, and helps maintain healthy skin and mucous membranes.

Q14. Why do pregnant and lactating women have higher nutritional needs?

Ans: Pregnant and lactating women have higher nutritional needs to support foetal growth, milk production, and to meet the increased energy and nutrient demands of their own bodies during these physiological states.

Q15. What is the RDA of Vitamin C as per ICMR?

Ans: The provided text does not give a specific RDA number for Vitamin C. (The question can be answered based on general knowledge: ICMR recommends 40 mg/day for adults. Students should refer to the text provided.)

Q16. What are the functions of proteins?

Ans: Proteins retain body structure and composition, build and repair tissues, form antibodies to fight infections, form enzymes and hormones, and provide food energy.

Q17. How does olive oil benefit the cardiovascular system?

Ans: Olive oil is rich in monounsaturated fats and antioxidants. It has a positive effect on cholesterol levels in the blood, making it beneficial for the cardiovascular system.

Q18. What is meant by RDA?

Ans: RDA stands for Recommended Dietary Allowance. It refers to the daily dietary intake level of a nutrient considered sufficient to meet the requirements of nearly all healthy individuals in a particular life stage and gender group.

Q19. What are the sources of Vitamin D?

Ans: Sources of Vitamin D include sunlight, fish, fish liver oils, butter, and eggs.

Q20. List two functions of water in the body.

Ans: Two functions of water are:

1. To regulate body temperature.
2. To help in regulating body temperature (also helps transport nutrients, remove waste, and maintain hydration).

UNIT - 3: MEAL PLANNING
CH - 7 BALANCED DIET

a) Define a balanced diet.

Ans. A balanced diet is one which contains carbohydrate, fat, protein, vitamins, mineral salts, water and fibre in adequate amounts required for healthy growth.

b) Name the micro and macro nutrients.

Ans. Micro nutrient- vitamin, Mineral, roughage.

Macro Nutrients :- Proteins, Fats and Carbohydrates.

f) Write four characteristics of a balanced diet.

Ans. Four characteristics of a balanced diet are:

It helps in controlling body weight, heart rate and blood pressure.

Increase in exercise capacity and muscle performance.

Improves blood sugar, lowers harmful cholesterol and triglycerides and increases the beneficial HDL cholesterol.

Produces mental and physical relaxation.

g) What are the functions of protein in our body?

Ans. The functions of protein in our body are

To retain body structure and composition.

To build and repair all tissues in the body.

To help from antibodies to fight infection.

To form enzymes, hormones to regulate body process.

To provide food energy.

h) What are the sources of carbohydrate and minerals in our body?

Ans. Sources of carbohydrate are cereal products including rice, chapatti, bread, poha, maida etc., potatoes, corn, sugar, syrup, jam, jaggery, dried fruits bananas.

Sources of minerals are

Calcium:- Milk, Curd, Cheese, fish, ragi, sesame seeds;

Phosphorus :- Carrot, Cauliflower, Milk and milk product beans, carrot, banana, liver, egg, fish and meat products.

Iron-Egg, shellfish, liver, green leafy vegetables, whole cereal products ragi, bajra, dals, dry beans.

❑ What is the natural source of Vitamin D?

Ans. Sunlight

❑ What do you mean by Recommended Dietary Allowances (RDAs)?

Ans. The Recommended Dietary Allowances are estimates of nutrients to be consumed daily to ensure the requirements of all individuals in a given population. The RDAs are suggested for physiological groups such as infants, preschoolers, children, adolescents, pregnant women, lactating woman and adult men and women. Taking into account their physical

Q What is the natural source of vitamin D?

Ans. Sunlight

Q What do you mean by Recommended Dietary Allowances (RDAs)?

Ans. The Recommended Dietary Allowances are estimates of nutrients to be consumed daily to ensure the requirements of all individuals in a given population. The RDAs are suggested for physiological groups such as infants, preschoolers, children, adolescents, pregnant women, lactating woman and adult men and women. Taking into account their physical activity RDAs are suggested average/day.

Q What are Food Groups?

Ans. A food group is a collection of food that share similar nutritional properties of biological classification.

Q Name the five food groups.

Ans. The five major food groups are

Cereals, grains and products:- Rice, wheat, ragi, bajra, maize, jowar, barley etc.

Main Nutrients:- Energy, protein, fat, vitamin B₁, Vitamin B₂, Folic Acid, Iron, fibre.

2. Pulses and Legumes – Bengal gram, black gram, green gram, red gram, lentils (whole as well as dals), peas, rajma, soyabeans, beans etc. **Main Nutrients-** Energy, protein, fat, vitamin B₁, vitamin B₂, folic Acid.

3. Milk and meat Products : Milk, curd, skimmed milk, cheese, curd, paneer, meat, chicken, liver, fish, egg.

Main Nutrients- Protein, fat, vitamin B₂, Calcium, Vita-A, vitamin B₁₂.

4. Fruits and vegetables: Mango, Guava, Tomato, Papaya, Orange, Sweet, lime, water melon.

Vegetables (Green leafy)–Amaranth, Spinach, Drumstick leaves, coriander leaves, fenugreek leaves

Other Vegetables: Carrot, Brinjal, ladies finger, capsicum, beans, onion, drumstick, cauliflower.

Main nutrients: Carotenoids, Vitamin B₁₂, Vitamin A, Vitamin B₁₂, Vitamin C, fibre, carbohydrate.

5. Fats and Sugar:- Fats such as Butter, ghee, Hydrogenated oils, Cooking oil like ground nut, mustard, coconut oil. Sugars such as Jaggery and sugar.

Main Nutrients : Energy, fat.

10. How can food be classified according to the function it performs?

Ans. Food can be classified according to the function it performs into the following groups.

4. Body-building foods –Protein, Mineral

5. Energy –giving foods- Carbohydrates, fats

6. Protective foods- Vitamins, Minerals

7. Regulatory Foods- Water, Roughage

11. State two advantages of including seasonal fruits and vegetable in meal.

Ans. 1. Seasonal fruits and vegetables are cheaper.

7. Regulatory Foods- Water, Roughage

11.State two advantages of including seasonal fruits and vegetable in meal.

Ans.1. Seasonal fruits and vegetables are cheaper.

2. They have better nutritive value.

4. What are the sources and functions of protein?

Ans. Protein are composed of amino acids. The sources of protein are milk, curd, cheese, lassi, dals, dry beans peas, ground nut, oil seeds, eggs, fish, poultry, meats breads and grain products.

Functions of Protein :

To retain body structure and composition.

To build and repair all tissues in the body.

To help antibodies to fight infection.

To form enzymes, hormones to regulate body process.

To provide food energy.

5. What are fats? Mention their sources and functions.

Ans. Fats are composed of glycerides, fatty acids and lipids in small quantities.

Sources of fat – Cooking fats and oils, ghee, butter cream, vanaspati and other meat fats.

Functions – 1.To supply food energy in concentrated form.

4. To supply essential fatty acids.

5. To aid transport and supply of fat soluble

vitamins.

14. Describe the sources and functions of Calcium.

Ans. Sources of calcium : Milk, curd, cheese, fish, ragi, sesame seeds.

Functions of Calcium :-

To build bones and teeth

To help in clotting of blood.

To help the muscles and nerves to react normally.

9. State the sources and functions of phosphorus.

Ans. Sources of Phosphorus : Carrot, Cauliflower, milk and milk product, beans, carrots, banana, liver, egg, fish and meat products.

Functions : 1. Phosphorus is essential for bone formation.

Source of energy for high energy bonds of ATP.

13.Which nutrients are found in green and leafy vegetables?

Ans. Green leafy vegetables contain

Fats, Carotenoids, vitamin B, Folic Acid, Calcium, iron and fibre. 17. Why do we need a balanced diet?

Ans.We need a balanced diet because

10.Our body organs and tissues need proper nutrition to work efficiently.

11. Without good nutrition, our body will be more prone to disease, infection, fatigue and poor performance.

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11. Without good nutrition, our body will be more prone to disease, infection, fatigue and poor performance.

12. Balanced diet will help the children for their proper growth and development.

13. It helps in controlling body weight, heart rate and BP.

14. Improves blood sugar, lowers harmful cholesterol.

18. What are carbohydrates?

Ans. Carbohydrates are composed of glucose, galactose, fructose and other sugar.

19. What are the sources of carbohydrates?

Ans. Cereal products including rice, chapatti, bread, poha, maida, potatoes, corn, sugar, syrup, jam, jaggery, dried fruits, banana.

20. What are the functions of carbohydrate?

Ans. Functions of Carbohydrate:-

2 To supply food energy

3 Fuel-oxidation or storage as glycogen.

1 To help body to use other nutrients.

c) What are the sources and functions of iron in our body?

Ans. Sources of Iron : Egg, shellfish, liver, heart, kidney, green leafy vegetables, whole cereal products, ragi, bajra, dals, dry beans. Functions of Iron : 1. To form haemoglobin- a pigment in the blood.

f) Responsible for respiratory enzymes.

22. What are the sources and functions of vitamin A?

Ans. Sources of Vitamin A- Dark, green vegetables, yellow vegetables, spinach, fenugreek, carrot, mango, papaya, ghee, butter, eggs, liver.

Functions of Vitamin A- 1. To help in growth and development.

To protect against night blindness.

6. What are the sources and functions of Thiamine?

Ans. Sources of Thiamine – Whole wheat products, dals, eggs, milk, pork, liver, heart, kidney.

Functions of Thiamine - 1. To maintain appetite and keep nervous system healthy.

2 To help in release of energy for use of body.

24. What are the sources and functions of vitamin 'D'?

Ans. Sources of Vitamin D- Sunlight, fish, fish liver oils, butter, eggs.

Function of Vitamin D- 1. To help absorption of calcium.

8. To help build strong bones and teeth.

9. To help in growth.

Long Questions :-

11. Write about the Nutritional contribution of following food groups in diet:

Long Questions :-

11. Write about the Nutritional contribution of following food groups in diet:

(a) Cereals and pulses

B. Milk and dairy products

C. Fruits

D. Green and other vegetables

Ans. The nutritional contribution of

3. **Cereals and Pulses:-** 1. Pulses like Haricot beans, peas chickpeas, broad beans provide us with carbohydrates, fibre, vitamins, minerals and protein.

If pulses are combined with cereals, the protein obtained is of higher quality.

Cereals are important source of energy. So they are the basis of our diet.

Food containing cereals are bread, pasta, rice and breakfast cereals.

4. Milk and Dairy Product :

This group is important because Dairy products (milk-yoghurt, cream-cheese, hard cheeses, cream, milk based deserts) etc. are an important source of high-quality protein, lactose, vitamins (A, D, B₂ and B₁₂) and Calcium. Calcium is required for the formation of bones and teeth and to prevent osteoporosis.

Fresh yoghurt and other fermented milk products are included in probiotic foods which help in strengthening the immune system, help people who have problem in digesting lactose and also protect the intestine from harmful micro-organisms.

5. **Fruits** – 1. Fruit and fruit juices provide water, sugar, vitamins (vitamin A and carotene, minerals (such as potassium and selenium) and fibre.

7. Juices only provide vitamins and minerals and lack most of the fibre contained in whole fruits, therefore it is always better to eat whole fruit.

8. Dried fruits (Prunes, chestnuts, raisins, dates) have lower water content.

9. We should eat fruits high in vitamin C on a daily basis (Citrus fruit, kiwis, strawberries)

- B. **Green and other vegetables:-** 1. These are important source of vitamins (A, E and C), minerals, fibre and antioxidants. So it is recommended that they should be eaten on a daily basis.

1 Kids should eat a variety of vegetable from each of the five

higher quality.

Cereals are important source of energy. So they are the basis of our diet.

Food containing cereals are bread, pasta, rice and breakfast cereals.

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- B. Green and other vegetables:- 1. These are important source of vitamins (A, E and C), minerals, fibre and antioxidants. So it is recommended that they should be eaten on a daily basis.

1 Kids should eat a variety of vegetable from each of the five subgroups.

6. Dark green vegetables

7. Orange vegetables

8. Dry beans and peas

9. Starchy vegetables

10. Other vegetables

6. The best way to get all the vitamins and minerals is to eat them raw, alone or in salads.

7. Roasting or grilling are other tasty options.

8. If they are boiled the water can be used to make soups or purees, because many of the minerals are left behind in cooking water.

9. Steamed vegetables keep most of their nutrients.

Chapter – 8

Multiple Choice Questions (MCQs)

1. What is the process of gradually introducing foods other than breast milk called?

- A) Supplementation
- B) Weaning
- C) Fermentation
- D) Sprouting

Answer: B

2. At what age should complementary feeding ideally begin?

- A) 1-2 months
- B) 4-6 months
- C) 8-10 months
- D) 12 months

Answer: B

3. What percentage of daily calorie intake should breakfast provide?

- A) 10-15%
- B) 20-35%
- C) 40-50%
- D) 50-60%

Answer: B

4. Which of the following is NOT a principle of meal planning?

- A) Knowledge of nutritional needs
- B) Use of five food groups
- C) Buying only expensive foods
- D) Budget of the family

Answer: C

5. What is the recommended calorie intake for a 12-month-old child?

- A) 500-600 kcal/day
- B) 700-800 kcal/day
- C) 900-1000 kcal/day
- D) 1200-1400 kcal/day

Answer: C

6. Which food combination improves protein quality?

- A) Rice and pulses
- B) Bread and butter
- C) Fruit and milk
- D) Sugar and tea

Answer: A

7. What is the RDA of iron for a 1-3 year old child?

- A) 10 mg/day
- B) 12 mg/day
- C) 15 mg/day

- D) 18 mg/day

Answer: B

8. Which of the following is a common problem during pregnancy?

- A) Diarrhoea
- B) Constipation
- C) Vomiting only
- D) Loss of appetite

Answer: B

9. What should be the consistency of food for very young infants?

- A) Solid
- B) Semi-solid
- C) Liquid
- D) Crunchy

Answer: C

10. Which nutrient requirement increases during pregnancy due to foetal pressure?

- A) Vitamin C
- B) Iodine
- C) Vitamin D
- D) Sodium

Answer: B

11. How many small meals should a pregnant woman eat in the second and third trimester?

- A) 2-3 meals
- B) 3-4 meals
- C) 5-6 meals
- D) 7-8 meals

Answer: C

12. What is the recommended protein intake for a 6-12 year old child?

- A) 20-30 g
- B) 41-54 g
- C) 60-70 g
- D) 75-85 g

Answer: B

13. Which of the following is a good source of calcium for the elderly?

- A) Sweets
- B) Fried foods
- C) Milk and milk products
- D) Sugary drinks

Answer: C

14. What is the RDA of calcium for a pregnant woman?

- A) 0.5 g

- B) 0.8 g
- C) 1.0 g
- D) 1.5 g

Answer: C

15. Which of the following helps relieve constipation in pregnancy?

- A) High fat foods
- B) Fiber and fluids
- C) Sugary foods
- D) Fried foods

Answer: B

16. What is the main reason elderly people need vitamin D supplements?

- A) Increased appetite
- B) Confinement to bed and lack of sunlight exposure
- C) Better digestion
- D) Weight gain

Answer: B

17. Which food group provides energy, protein, fat, and B vitamins?

- A) Fruits and vegetables
- B) Cereals, roots and tubers
- C) Fats and sugars
- D) Milk and meat products

Answer: B

18. What is the recommended energy intake for an adolescent girl (16 years)?

- A) 1500 kcal
- B) 2000 kcal
- C) 2330 kcal
- D) 3020 kcal

Answer: C

19. Which method enhances the nutritive value of food by combining foods?

- A) Boiling
- B) Combining foods like rice and pulses
- C) Frying
- D) Freezing

Answer: B

20. What should be done if a child dislikes a particular food?

- A) Force-feed the child
- B) Remove it and reintroduce later
- C) Punish the child
- D) Never give it again

Answer: B

20 Short Answer Questions with Answers

Q1. Define meal planning.

Ans: Meal planning is the process of organizing meals in advance to meet the nutritional needs of family members, considering factors like budget, food preferences, and available resources, while saving time, money, and energy.

Q2. What are the principles of meal planning?

Ans: The principles include:

1. Knowledge of nutritional needs of family members.
2. Use of five food groups.
3. Knowledge of nutrients and their sources.
4. Use of recommended balanced diet charts.
5. Family budget and use of seasonal food.

Q3. Why is meal planning important?

Ans: Meal planning is important because it caters to nutritional needs, enables preparation of attractive meals, saves money/time/energy/fuel, helps record and improve meals, enhances nutritive value through food combinations, and helps use leftovers.

Q4. What is weaning?

Ans: Weaning is the gradual process of introducing foods other than breast milk into a child's feeding schedule. It starts around 4-6 months and continues until the child is completely off breast milk.

Q5. What are home-based complementary foods for infants?

Ans: Home-based complementary foods include cereal porridge, soaked chapati, mashed rice-dal, khichdi, idli, upma, suji keher, mashed fruits, cooked mashed vegetables, and atta-besan cheela.

Q6. List any four points to keep in mind while introducing new foods to a child.

Ans:

1. Introduce only one food at a time.
2. Consistency should be appropriate for the child's age (liquid to semi-solid to solid).
3. Start with small quantities and gradually increase.
4. Never force-feed; if disliked, remove and reintroduce later.

Q7. What should a healthy breakfast include?

Ans: A healthy breakfast should include fruits or fresh fruit juice, protein sources like milk, eggs, or pulses, and cereals like porridge, parantha, idli, dosa, upma, or poha. It should provide 20-35% of daily calorie needs.

Q8. What is the diet recommendation for a middle school-going child (6-12 years)?

Ans: The diet should supply adequate protein, calcium, phosphorus, iron, Vitamin C, Vitamin A, and Vitamin B from sources like milk, green leafy vegetables, deep yellow vegetables, citrus fruits, and whole-grain cereals. A good breakfast and nutritious tiffin snacks are essential.

Q9. What are the Recommended Dietary Allowances for a 6-12 year old?

Ans:

- Energy: 1950–2200 kcal/day
- Protein: 41–54 g
- Calcium: 0.4 g – 0.6 g
- Iron: 26–34 g

· Vitamin A: 600 µg

Q10. What is the diet plan for an adolescent girl (16 years)?

Ans: A sample menu includes:

- Breakfast: Milk with cornflakes, toast with butter or dal ka cheela.
- Mid-day snack: Vegetable/paneer sandwiches.
- Lunch: Dal makhani, palak paneer, chapatis, raita, salad.
- Evening: Milk/coffee with vegetable cutlets/soyabean samosa.
- Dinner: Lauki sabzi, mixed vegetables, chapatis, pulao, salad, and ice-cream with mango.

Q11. What is the importance of breakfast?

Ans: Breakfast provides energy and nutrients after overnight fasting. It fuels the body and brain, improves concentration, and provides essential nutrients like protein, fibre, carbohydrates, calcium, iron, and vitamin B.

Q12. What should be included in an adult's balanced diet?

Ans: An adult's diet should include complex carbohydrates with high fiber, adequate protein to maintain muscle mass, small amounts of dairy products, plenty of fresh fruits and vegetables, and adequate fluids like water, juices, or soups.

Q13. Why do adults' dietary needs vary?

Ans: Dietary needs vary with age, gender, level of physical activity, and health. A sedentary person needs a low-carbohydrate diet, while an active person needs more protein, carbohydrates, and fats. Nursing mothers have higher calcium and iron requirements.

Q14. What dietary changes are recommended for pregnant women?

Ans: During the second and third trimester, pregnant women should eat 5-6 small meals daily. Protein needs should be met with milk, meat, fish, eggs, pulses, groundnut, and soybean. Calcium and iron requirements should be met with milk, whole grains, pulses, green leafy vegetables, dry fruits, eggs, and organ meats.

Q15. What is the RDA for a 25-year-old pregnant woman in her third trimester?

Ans:

- Energy: 2525 kcal
- Protein: 65 g
- Iron: 38 mg
- Thiamine: 1.3 mg
- Calcium: 1.0 g

Q16. Why is iodine important during pregnancy?

Ans: Iodine requirement increases during pregnancy due to stress. If the mother develops goitre, the child may also be affected. Adequate iodine is essential for thyroid function and foetal brain development.

Q17. What are the common health problems in old age related to nutrition?

Ans: Common nutrition-related health problems in old age include obesity, diabetes, constipation, cardiovascular diseases, and osteoporosis.

Q18. What factors should be kept in mind while planning meals for the elderly?

Ans:

1. Reduce energy-rich foods like sweets, fried foods, and starches.
2. Include liberal amounts of milk products, fresh fruits, and vegetables.

3. Ensure adequate calcium intake.
4. Provide vitamin D supplements if confined to bed.
5. Include dietary fiber to manage constipation, diabetes, and heart disease.
6. Reduce portion sizes due to decreased digestive capacity.

Q19. How can meal planning help save money?

Ans: Meal planning saves money by:

- Comparing prices and buying seasonal foods.
- Using low-cost alternatives with similar nutritive value (e.g., pulses instead of meat).
- Avoiding wastage of raw and cooked food.
- Avoiding impulsive buying.
- Growing fruits and vegetables in a kitchen garden.

Q20. How can the nutritive value of meals be enhanced?

Ans: Nutritive value can be enhanced by:

- Combining foods like rice and pulses (e.g., idli-sambhar).
- Sprouting (e.g., mung sprouts for salad).
- Fermentation (e.g., dhokla).
- Using leftovers creatively (e.g., leftover rice for biryani).
- Using appropriate cooking methods like steaming to retain nutrients.

CH- 8 MEAL PLANNING FOR THE FAMILY

6) What is meal planning?

Ans. Meal planning means 'Planning for adequate Nutrition'. It is both an art and science- it includes food purchasing and meal preparation.

7) Define meal planning.

Ans. Meal planning can be defined as the "Implementation of the principles of nutrition in one's daily diet in an appetizing way".

8) State the most important meal of the day. Give reasons to justify your answer.

Ans. The most important meal of the day is breakfast because.

Efficiency in physiological performance decreases in late morning hours when breakfast is omitted.

A basic breakfast must be adequate to provide one-fourth of daily calorie requirement, one-fourth of the daily protein requirement for maintaining better efficiency in the late morning hours.

A protein intake of 20 to 25gm is usually most suitable for the maintenance & the blood glucose level during the late morning hours.

Omission of breakfast has been found to be of no value in weight reduction.

A nutritionally adequate breakfast will determine its efficiency rather than its content.

9) What is meant by anti-infective property of breastmilk?

Ans. 1. Breast milk is a very hygienic method of feeding as milk goes straight from the mother's breast to the child's mouth, reducing the chances of contamination and infection, which are plenty in artificially fed infant.

Breast milk contains anti-staphylococcal factor which prevents the growth of bacteria in the infant's intestine.

3. The gastric juice of the breast-fed baby is more acidic and this destroys any micro-organism that enters the stomach.

B. Name the factors by which acceptance of food is affected?

Ans. Religion, socio-economic status, knowledge of the home-maker of the food groups and their nutritional content, repetition of the same food in different meals. Colour, taste, texture and flavour of food, use of different cooking methods to bring variety, using alternative garnishes and accompaniments, special conditions like pregnancy, lactation and diseased condition, food fads etc.

C. What are food fads?

Ans. Food fad means wrong notions and beliefs regarding consumption of food, prevalent in different communities which are baseless and may deprive an important nutrient source. For example, fad like milk and fish should not be included in the same meal. These food fads need to be discouraged.

D. Define weaning.

Ans. Weaning is the art of gradually introducing foods other than breast milk in the child's feeding schedule.

E. Explain in brief the term complementary feeding.

should not be included in the same meal. These food fads need to be discouraged.

D. Define weaning.

Ans. Weaning is the art of gradually introducing foods other than breast milk in the child's feeding schedule.

E. Explain in brief the term complementary feeding.

Ans. Complementary feeding should start when the child is six months old as breast milk alone cannot meet the increasing nutritional needs of the growing baby. But breast feeding must continue upto the age of two years and beyond. Both early or late introduction of complementary food is harmful for baby's health. Home based complementary food should be fed. Examples : Cereal porridge, chapatti soaked in milk, mashed rice-dal, khichdi, upma, suji kheer etc.

B. Why is it essential to increase the amount of calcium in an adolescent's diet?

Ans. Calcium as an important nutrient for Adolescent's diet. This is needed-

2. To provide material for the growth of the skeleton and the teeth and for others physiological functions.
3. Owing to the uneven distribution of calcium in foods, an adolescent must use milk product as the prime source.
4. Emotional stress and strain which are the characteristics of the adolescent period, may interfere with the retention of calcium. So it is necessary to increase the amount of calcium in adolescent's diet.
5. In boys the height gain at this period is about 20cm and weight gain is about 18kg, in girls it is a bit less. So food rich in calcium and protein should be included in diet.

10. Why should extra iron be incorporated in the diet during pregnancy?

Ans. 1. The body of the pregnant women uses iron to make extra blood for her and her baby during pregnancy.

viii) Iron in haemoglobin helps to carry more oxygen from her lungs to the rest of the body and to the baby.

ix) Getting enough iron can prevent a condition of too few red blood cells that can make the pregnant woman feel tired, called iron deficiency anaemia.

9. State two reasons why dietary fibre should be included in planning a diet for elderly people.

Ans. Dietary fibre has beneficial effect in various conditions associated with ageing such as constipation, diabetes and cardiovascular diseases.



It helps to regulate digestion in old age thus prevents constipation.

Eating soluble dietary fibre helps to maintain cholesterol and blood sugar levels.

iv) Why is it important to increase the amount of water in old age?

Ans. 1. It is important to increase the amount of water in the diet of older persons because the normal function of kidney decreases as one grows older. Water is important to carry away wastes excreted by kidney. It becomes easier for the kidneys to function with diluted urine.

6. Constipation is often a problem of old age and drinking water in proper quantity may prevent this ailment.

Long answer :-

13. What are the principles of meal planning?

Ans. 1. Knowledge of Nutritional needs of the family member according to their age, sex and occupation.

7. Use of five food groups in diet plan.

8. Knowledge of nutritive value of foods.

9. Use of Recommended tables (charts) of balanced diets (ICMR)

10. Use of available resources- Skill, knowledge, abilities (Human Resources)

11. Budget of the family- Allotted for food.

12. Planning in advance to save time and energy.

13. Composition of family- Infants, children, teenager and elderly people.

14. Physiological phases of family member- Pregnant and Lactating.

15. Dietary or traditional habits- vegetarian, non-vegetarian, south Indian, Punjabi etc.

16. The food planned should be palatable and appealing to the eye.

17. Individual preferences must be considered.

B Cook's ability- to save nutrients, while cooking.

9. Why is meal planning important?

C. It caters to the nutritional needs of the family.

D. Prior meal planning saves time, energy and fuel.

E. Better choice of food and avoids monotony in the diet.

F. Enables the housewife to enhance the nutritive value of food by proper combination of foods and by sprouting and fermentation.

G. Meal planning determines the adequacy of the diet.

H. Attractive meals can be prepared if prior planning is done.

I. Leftovers of the previous meal can be used instead of being wasted.

2 Explain the factors to be considered while planning meals for the family.

Ans. Factors affecting meal planning :-

A While planning use the whole day as a unit to avoid repetitions of same food.

B The diet should be such that it caters to individual nutritional needs of the family.

C Sources of Nutrients : Knowledge of different sources of food nutrients is very important.

D A judicious selection of food from each food group will supply adequate

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- B The diet should be such that it caters to individual nutritional needs of the family.
- C Sources of Nutrients : Knowledge of different sources of food nutrients is very important.
- D A judicious selection of food from each food group will supply adequate nutrients.
- E Meal should be planned according to the food budget of the family.
- F Food preferences of family members should be remembered while preparing food.
- G Planned diet should be balanced.
- H Seasonal foods should be selected as they are cheaper and have better nutritive value.

10. The meal should be such that it should save time, energy and expenditure.

11. Suitable combination enhances the nutritional value of food stuffs.

11. Use of Roughage such as whole grains, whole cereals, pulses, green leafy vegetables.

16. Mention any five methods adopted while planning and organizing meals to save time and energy.

Ans. The following methods can be adopted while planning and organizing meals to save time and energy.

- ix) Plan the meal for several days or at least for a week to save time.
- x) Make an accurate shopping list, including quantities and quality of goods you need. Also check supplies in stock.
- xi) Appropriate preparation techniques and adequate storage facilities helps in economy of energy and time.
- xii) Use such kitchen equipments which can help to save time and energy.
- xiii) One should have best available purchase information to save time, energy and money. Make time for food purchase.

B. State the importance of breakfast in a child's diet.

Ans. 1. Breakfast provides the child with energy and nutrients that leads to increased concentration.

- i Breakfast is important in maintaining a healthy body weight.
- ii As breakfast should provide one-quarter of the day's total nutrient needs, it is very important in a child's diet.

- x) Make an accurate shopping list, including quantities and quality of goods you need. Also check supplies in stock.
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B. State the importance of breakfast in a child's diet.

Ans. 1. Breakfast provides the child with energy and nutrients that leads to increased concentration.

- i Breakfast is important in maintaining a healthy body weight.
- ii As breakfast should provide one-quarter of the day's total nutrient needs, it is very important in a child's diet.
- iii A breakfast should provide one fourth of the daily protein requirements. So milk should be essentially included in the breakfast of children.

v) Since the rate of growth and development of a child depends on the adequacy of the diet he consumes, the breakfast should be adequate to supply protein, calcium phosphorus, iron, Vit C, Vit A and Vit B.

ii Discuss the points to be kept in mind while planning a meal for an adolescent.

Diet for Adolescents:

- i) Adolescents calorie needs vary depending on their growth rate, degree of physical maturation, body composition and activity level. They need extra nutrients to support growth spurt.
- ii) Requirements for protein, calcium and Iron are increased. So foods rich in these nutrients should be included in their diet.
- iii) Food habits like skipping meals, snacking on Junk food and eating out ,do not contribute towards good health. 'Diets' and swing in weight loss should be avoided. A realistic meal pattern for a life time should be established.
- iv) To support the acceleration of growth as much as twice, the calcium, iron, magnesium, protein and zinc are incorporated in the diet as compared to the years before and after this period.
- v) Vit D is important in formation of longer bones. Other Vitamin requirement like A, C, E and B also increases.
- vi) Calcium is needed to provide material for growth of skeleton and teeth and other physiological functions. An adolescent must use milk product as the prime source.
- vii) Onset of menstrual cycle in girls increases iron requirement. So extra iron should be supplied by sufficient intake of leafy vegetables.
- ii) Adolescents are physically more active than adult. They feel hungry all the time. So it is necessary to train adolescents to eat properly at regular meal times.

Chapter – 9

Multiple Choice Questions (MCQs)

1. What is the process of gradually introducing foods other than breast milk called?

- A) Supplementation
- B) Weaning
- C) Fermentation
- D) Sprouting

Answer: B

2. At what age should complementary feeding ideally begin?

- A) 1-2 months
- B) 4-6 months
- C) 8-10 months
- D) 12 months

Answer: B

3. What percentage of daily calorie intake should breakfast provide?

- A) 10-15%
- B) 20-35%
- C) 40-50%
- D) 50-60%

Answer: B

4. Which of the following is NOT a principle of meal planning?

- A) Knowledge of nutritional needs
- B) Use of five food groups
- C) Buying only expensive foods
- D) Budget of the family

Answer: C

5. What is the recommended calorie intake for a 12-month-old child?

- A) 500-600 kcal/day
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- C) 900-1000 kcal/day
- D) 1200-1400 kcal/day

Answer: C

6. Which food combination improves protein quality?

- A) Rice and pulses
- B) Bread and butter
- C) Fruit and milk
- D) Sugar and tea

Answer: A

7. What is the RDA of iron for a 1-3 year old child?

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- B) Constipation
- C) Vomiting only
- D) Loss of appetite

Answer: B

9. What should be the consistency of food for very young infants?

- A) Solid
- B) Semi-solid
- C) Liquid
- D) Crunchy

Answer: C

10. Which nutrient requirement increases during pregnancy due to foetal pressure?

- A) Vitamin C
- B) Iodine
- C) Vitamin D
- D) Sodium

Answer: B

11. How many small meals should a pregnant woman eat in the second and third trimester?

- A) 2-3 meals
- B) 3-4 meals
- C) 5-6 meals
- D) 7-8 meals

Answer: C

12. What is the recommended protein intake for a 6-12 year old child?

- A) 20-30 g
- B) 41-54 g
- C) 60-70 g
- D) 75-85 g

Answer: B

13. Which of the following is a good source of calcium for the elderly?

- A) Sweets
- B) Fried foods
- C) Milk and milk products
- D) Sugary drinks

Answer: C

14. What is the RDA of calcium for a pregnant woman?

- A) 0.5 g
- B) 0.8 g
- C) 1.0 g
- D) 1.5 g

Answer: C

15. Which of the following helps relieve constipation in pregnancy?

- A) High fat foods
- B) Fiber and fluids
- C) Sugary foods
- D) Fried foods

Answer: B

16. What is the main reason elderly people need vitamin D supplements?

- A) Increased appetite
- B) Confinement to bed and lack of sunlight exposure
- C) Better digestion
- D) Weight gain

Answer: B

17. Which food group provides energy, protein, fat, and B vitamins?

- A) Fruits and vegetables
- B) Cereals, roots and tubers
- C) Fats and sugars
- D) Milk and meat products

Answer: B

18. What is the recommended energy intake for an adolescent girl (16 years)?

- A) 1500 kcal
- B) 2000 kcal
- C) 2330 kcal
- D) 3020 kcal

Answer: C

19. Which method enhances the nutritive value of food by combining foods?

- A) Boiling
- B) Combining foods like rice and pulses
- C) Frying
- D) Freezing

Answer: B

20. What should be done if a child dislikes a particular food?

- A) Force-feed the child
- B) Remove it and reintroduce later
- C) Punish the child
- D) Never give it again

Answer: B

20 Short Answer Questions with Answers

Q1. Define meal planning.

Ans: Meal planning is the process of organizing meals in advance to meet the nutritional needs of family members, considering factors like budget, food preferences, and available resources, while saving time, money, and energy.

Q2. What are the principles of meal planning?

Ans: The principles include:

1. Knowledge of nutritional needs of family members.
2. Use of five food groups.
3. Knowledge of nutrients and their sources.
4. Use of recommended balanced diet charts.
5. Family budget and use of seasonal food.

Q3. Why is meal planning important?

Ans: Meal planning is important because it caters to nutritional needs, enables preparation of attractive meals, saves money/time/energy/fuel, helps record and improve meals, enhances nutritive value through food combinations, and helps use leftovers.

Q4. What is weaning?

Ans: Weaning is the gradual process of introducing foods other than breast milk into a child's feeding schedule. It starts around 4-6 months and continues until the child is completely off breast milk.

Q5. What are home-based complementary foods for infants?

Ans: Home-based complementary foods include cereal porridge, soaked chapati, mashed rice-dal, khichdi, idli, upma, suji keher, mashed fruits, cooked mashed vegetables, and atta-besan cheela.

Q6. List any four points to keep in mind while introducing new foods to a child.

Ans:

1. Introduce only one food at a time.
2. Consistency should be appropriate for the child's age (liquid to semi-solid to solid).
3. Start with small quantities and gradually increase.
4. Never force-feed; if disliked, remove and reintroduce later.

Q7. What should a healthy breakfast include?

Ans: A healthy breakfast should include fruits or fresh fruit juice, protein sources like milk, eggs, or pulses, and cereals like porridge, parantha, idli, dosa, upma, or poha. It should provide 20-35% of daily calorie needs.

Q8. What is the diet recommendation for a middle school-going child (6-12 years)?

Ans: The diet should supply adequate protein, calcium, phosphorus, iron, Vitamin C, Vitamin A, and Vitamin B from sources like milk, green leafy vegetables, deep yellow vegetables, citrus fruits, and whole-grain cereals. A good breakfast and nutritious tiffin snacks are essential.

Q9. What are the Recommended Dietary Allowances for a 6-12 year old?

Ans:

- Energy: 1950–2200 kcal/day
- Protein: 41–54 g
- Calcium: 0.4 g – 0.6 g

- Iron: 26–34 g
- Vitamin A: 600 µg

Q10. What is the diet plan for an adolescent girl (16 years)?

Ans: A sample menu includes:

- Breakfast: Milk with cornflakes, toast with butter or dal ka cheela.
- Mid-day snack: Vegetable/paneer sandwiches.
- Lunch: Dal makhani, palak paneer, chapatis, raita, salad.
- Evening: Milk/coffee with vegetable cutlets/soyabean samosa.
- Dinner: Lauki sabzi, mixed vegetables, chapatis, pulao, salad, and ice-cream with mango.

Q11. What is the importance of breakfast?

Ans: Breakfast provides energy and nutrients after overnight fasting. It fuels the body and brain, improves concentration, and provides essential nutrients like protein, fibre, carbohydrates, calcium, iron, and vitamin B.

Q12. What should be included in an adult's balanced diet?

Ans: An adult's diet should include complex carbohydrates with high fiber, adequate protein to maintain muscle mass, small amounts of dairy products, plenty of fresh fruits and vegetables, and adequate fluids like water, juices, or soups.

Q13. Why do adults' dietary needs vary?

Ans: Dietary needs vary with age, gender, level of physical activity, and health. A sedentary person needs a low-carbohydrate diet, while an active person needs more protein, carbohydrates, and fats. Nursing mothers have higher calcium and iron requirements.

Q14. What dietary changes are recommended for pregnant women?

Ans: During the second and third trimester, pregnant women should eat 5-6 small meals daily. Protein needs should be met with milk, meat, fish, eggs, pulses, groundnut, and soybean. Calcium and iron requirements should be met with milk, whole grains, pulses, green leafy vegetables, dry fruits, eggs, and organ meats.

Q15. What is the RDA for a 25-year-old pregnant woman in her third trimester?

Ans:

- Energy: 2525 kcal
- Protein: 65 g
- Iron: 38 mg
- Thiamine: 1.3 mg
- Calcium: 1.0 g

Q16. Why is iodine important during pregnancy?

Ans: Iodine requirement increases during pregnancy due to stress. If the mother develops goitre, the child may also be affected. Adequate iodine is essential for thyroid function and foetal brain development.

Q17. What are the common health problems in old age related to nutrition?

Ans: Common nutrition-related health problems in old age include obesity, diabetes, constipation, cardiovascular diseases, and osteoporosis.

Q18. What factors should be kept in mind while planning meals for the elderly?

Ans:

1. Reduce energy-rich foods like sweets, fried foods, and starches.

2. Include liberal amounts of milk products, fresh fruits, and vegetables.
3. Ensure adequate calcium intake.
4. Provide vitamin D supplements if confined to bed.
5. Include dietary fiber to manage constipation, diabetes, and heart disease.
6. Reduce portion sizes due to decreased digestive capacity.

Q19. How can meal planning help save money?

Ans: Meal planning saves money by:

- Comparing prices and buying seasonal foods.
- Using low-cost alternatives with similar nutritive value (e.g., pulses instead of meat).
- Avoiding wastage of raw and cooked food.
- Avoiding impulsive buying.
- Growing fruits and vegetables in a kitchen garden.

Q20. How can the nutritive value of meals be enhanced?

Ans: Nutritive value can be enhanced by:

- Combining foods like rice and pulses (e.g., idli-sambhar).
- Sprouting (e.g., mung sprouts for salad).
- Fermentation (e.g., dhokla).
- Using leftovers creatively (e.g., leftover rice for biryani).
- Using appropriate cooking methods like steaming to retain nutrients.

CH - 9 STORAGE AND PRESERVATION OF FOOD

iii) Define food hygiene.

Ans. Food hygiene may be defined as "the careful handling of food in a way that will keep it safe and free from all contaminants".

iv) Differentiate between perishable and non-perishable foods.

Ans.

Perishable food	Non-perishable food
Perishable food cannot be stored for more than 2-3 days under normal condition.	Non-perishable food can be stored for longer time compared to perishable and semi-perishable food.
Examples- Meat, Ripe fruits, milk, fish	Examples- Cereals, pulses dry fruits, spices

3. What are convenience food?

Ans. Convenience food is a category of food in which the food may be semi processed and then stored. This increases their shelf life and ease of preparation. In these products the significant portion of the preparation has been transferred from the kitchen to the processing plant. Examples: Frozen peas, jams, jellies, canned soups, pickles, juices etc.

(v) Explain the term 'Hygroscopic nature of food'.

Ans. Hygroscopic nature of food means when food is exposed to air, it naturally absorbs moisture in the form of air. For example sugar has hygroscopic nature. Therefore sugar and food items rich in sugar should be stored in dry places and in air light containers because it becomes sticky when exposed to moisture.

(vi) Why should milk not be kept exposed to sunlight?

Ans. Milk should not be exposed to sunlight because of loss of ascorbic acid and riboflavin. It will also decrease the shelf life of milk.

vi) Give reasons.

Convenience food should be consumed in moderation.

Freezing is not always the most economical method of preserving food.

Some fruits and vegetables turn brown in cutting.

6.(a) Ans. Convenience food should be consumed in moderate because –

Most of the convenient foods are laden with saturated fats and sugar and provide little nutritional value 2) Besides that they are heavily processed.

B (b) A. Freezing is not always the most economical method of preserving food because the initial investment for equipment is more and it costs more to maintain a freezer. Vitamin B and C are lost in freezing process. Antioxidants which protect us from cell damage are lower in frozen fruits than they are in fresh fruits. The cells in the frozen food rupture, resulting in moisture, texture and flavour loss. The size of the freezer limits the amount of storage space. The cost of electricity, packaging material and repair has to be taken into consideration.

B (c) A. When fresh fruits and vegetables are peeled or cut, the enzyme called polyphenol oxidase (also called tyrosinase) contained in the cells is

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B (c) A. When fresh fruits and vegetables are peeled or cut, the enzyme called polyphenol oxidase (also called tyrosinase) contained in the cells is exposed to and reacts with oxygen in the air. The reaction that occurs, which is called oxidation, is what turns the fruits and vegetables brown.

7. Name two important chemical preservatives for food preparation. Ans. (i) Sodium benzoate and

(ii) Potassium Metabisulphite

8. Mention two precautions to be followed while refrigerating food at home.

Ans. 1. Only fresh and wholesome food should be kept in refrigerator.

2. Quickly perishable food should be kept in the compartment close to freezer.

10. What is food preservation? Why should it be done?

Ans. The term food preservation refers to any one of a number of techniques used to prevent food from spoiling. It includes methods such as canning, pickling, drying and freeze-drying, use of radiation, pasteurization, smoking and the addition of chemical additives.

The three basic objectives of food preservation are

A. Prevention of contamination of food from damaging agents.

B. Delay or prevention of growth of microorganisms in the food.

X. Delay of enzymatic spoilage, i.e. self decomposition of the food by naturally occurring enzymes in it.

10. What are the two major causes of food spoilage?

Ans. Two major causes of food spoilage are-

i Poor food handling.

ii Inadequate food safety.

14. Classify food on the basis of moisture content for the purpose of storage.

Give two examples of each.

Ans. The three categories of food based on moisture content are as below.

A. Perishable food, examples: Milk, meat

B. Semi-perishable food. Example: potato, wheat flour.

C. Non-perishable food. Cereals, pulses, spices etc.

12. How is radiation effective in food preservation?

Ans. The ultra-violet or gamma rays are allowed to pass through packaged food to sterilize it.

15. State the principles of food preservation.

Ans. The principles of food preservation are

A. Use of low temperature

B. Use of high temperature

3. Drying of food item (Dehydration)
4. Radiation- use of ultra violet or gamma-rays for sterilization of packaged food.
5. Use of preservatives.
6. Why does ground meat get spoilt very easily?

Ans. When meat will be grounded, more surface area of meat will be exposed to air or oxygen, which will help microorganisms (bacteria) to grow rapidly and this will lead to easy spoilage of meat.

4. What are the factors affecting safety of food at home?

Ans. Factors affecting the safety of food at home.

- A. Cleanliness in the kitchen.
- B. Hygienic handling of food
- C. Personal hygiene.
- D. To prevent wastage of food- Do not purchase and cook food more than is necessary for consumption.
- E. Cook well because poorly cooked food is left uneaten.

16. What are perishable food items? How can the technique of low temperature be used to preserve them?

Ans. Perishable foods cannot be stored for more than 2-3 days under normal conditions. Milk, milk products meat, fish, egg, poultry and cooked vegetables are included in this group.

The technique of low temperature can be used to preserve them. It involves storing the food item at temperature below normal room temperature. The action of micro-organisms and chemical action get retarded at lower temperature. So the process of decay is delayed. Food item can be preserved for a period more than normal.

The use of low temperature technique is either

- a) Home refrigeration or b) Freezing

8. Home refrigeration is achieved by using refrigerator, ice box etc. The perishable food items can be preserved for some additional period.

Following precautions should be exercised for better results.

10. Only fresh and wholesome food should be kept in refrigerator.
11. Fruits and vegetables should be kept in plastic bags, to prevent loss of moisture.
12. Quickly perishable food should be kept in the compartment close to freezer.
13. Cooked food should be kept properly covered, so that mixing of flavour and loss of moisture is avoided.
14. Refrigerator should be frequently defrosted and cleaned.
15. Refrigerator should not be opened frequently.

10. Freezing :- The appliance used in this case is a refrigerator. In fact, the freezer part is used for storing the food items at a temperature below freezing point of water. The growth of micro-organisms, enzymatic activity and chemical reactions are very very slow at a temperature below ice-point. So food items can be preserved for weeks together.

Food items should be packed in small quantities which are sufficient for one meal at a time, thereby, preserving remaining items from spoilage.

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17. Personal hygiene in food handling a major step to prevent the contamination of food. Explain.

The most important way of preventing contamination is by adopting good personal hygiene by the food handler. The following principles should be followed to prevent contamination.

B. Wash your hands thoroughly before and after handling any food, after using the bathroom, after touching animals.

C. Wash all cutting boards and utensils with hot water and soap after preparing each food item and before moving to the next food item.

D. Avoid cross-contaminating food items- separate meat, poultry and seafood from other foods. Always wash your hands utensils, and cutting boards after they came into contact with these products.

E. Cook to proper temperatures. Cook eggs until both the white and yolk are firm. Fish should be opaque and flake easily. Red meat and poultry should reach internal temperature of 160 and 180 degrees respectively. Leftovers must be reheated at least to 165 degrees Fahrenheit.

F. Refrigerate promptly. Some items such as meat and poultry must be frozen if they are not used within 1-2 days.

Leftovers should be refrigerated within 2 hours. Keep frozen foods in the freezer until they are ready to be thawed and cooked.

G. All surfaces that come in contact with food should be meticulously clean.

H. Food should be covered and kept separate from chemicals and poison.

I. Clothes that come into contact with dishes and utensils need to be changed daily and boiled before use.

J. Prepare home-canned foods in clean conditions because they are the most common cause of botulism.

10. Food storage, preparation and serving areas should be free of pests, rats, mice and insects.