

Objective Type/Multiple Choice Questions (Carrying 1 Mark)

Give one word answers.

1. Which diet can provide all the essential food constituents necessary for growth and maintenance of the body?
2. Who discovered vitamin 'A'?
3. Which mineral helps iron in the formation of haemoglobin?
4. Which vitamin was discovered by Elmer McCollum?
5. What is the name of that carbohydrate in which the ratio of hydrogen atoms to oxygen atoms is not 2: 1?
6. What is the other name of vitamin B₂?
7. Which vitamin helps in maintaining the level of calcium and phosphorus in our body?

Fill in the blanks.

1. Our blood contains percent of water.
2. Minerals and are included in micronutrients.
3. The deficiency of may cause goitre.
4. About percent of our body weight is made up of minerals.
5. Vitamin 'C' is also known as

State True or False.

1. A balanced diet must contain all the essential food constituents in adequate amount. (True/False)
2. Carbohydrates contain the elements of carbon, hydrogen and oxygen. (True/False)
3. Glucose, fructose, sucrose and maltose are called complex carbohydrates. (True/False)
4. Fats contain carbon, oxygen and hydrogen in the percentage of 76, 12 and 12 respectively. (True/False)

Choose the correct answer.

1. In most of the carbohydrates, the ratio of hydrogen atoms to oxygen atoms is:
(a) 2 : 1 (b) 1 : 2 (c) 1 : 3 (d) None of these
2. Trypsin helps in the digestion of:
(a) Vitamins (b) Fats (c) Protein (d) Carbohydrates
3. Which group of fats usually increases the chances of heart diseases?
(a) Saturated fats (b) Poly unsaturated fats
(c) Mono-unsaturated fats (d) None of the above
4. Which one of the following is not the example of macrominerals?
(a) Sodium (b) Potassium (c) Iron (d) Calcium
5. Which one of the following is an example of water soluble vitamins?
(a) Vitamin 'D' (b) Vitamin 'C' (c) Vitamin 'A' (d) Vitamin 'E'

6. Which disease is caused by the deficiency of vitamin B₃?
 (a) Beri-beri (b) Pellagra (c) Rickets (d) Nightblindness
7. Which one of the given minerals plays an important role in the formation of haemoglobin?
 (a) Iron (b) Sulphur (c) Phosphorus (d) Sodium
8. Which one of the following is not the non-nutritive component of diet?
 (a) Roughage (b) Colour compounds
 (c) Protein (d) Flavour compounds
9. What is the other name of Vitamin B₃?
 (a) Riboflavin (b) Biotin (c) Niacin (d) Thiamin
10. Which Vitamin is derived from the word "Coagulation"?
 (a) Vitamin E (b) Vitamin K (c) Vitamin A (d) Vitamin C
11. Which one of the following vitamins is helpful in the clotting of blood?
 (a) Vitamin K (b) Vitamin C (c) Vitamin A (d) Vitamin E
12. Nitrogen is found in which component of diet?
 (a) Vitamin (b) Protein (c) Fats (d) Carbohydrates
13. The main source of protein are:
 (a) Fish, meat and eggs (b) Green vegetables
 (c) Wheat and rice (d) Sunlight and water
14. Which one of the following is a macro mineral?
 (a) Iron (b) Iodine (c) Calcium (d) Copper
15. Body Mass Index is used to measure:
 (a) Body strength (b) Body endurance
 (c) Body healthy weight (d) Body fat
16. The formula of BMI is:
 (a) $\frac{\text{Height}}{(\text{Weight})^2}$ (b) $\frac{\text{Weight}}{(\text{Height})^2} \times 100$
 (c) $\frac{\text{Weight}}{(\text{Height})^2}$ (d) $\frac{\text{Height}}{(\text{Weight})^2} \times 100$
17. All the following are macro-nutrients except:
 (a) Carbohydrates (b) Fats (c) Vitamins (d) Proteins
18. According to WHO the normal range of BMI is:
 (a) < 18.5 (b) 18.5 – 24.9 (c) 25 – 29.9 (d) 30 – 34.9
19. Which one of the following is not included in micro-minerals?
 (a) Iodine (b) Potassium (c) Copper (d) Iron
20. Which vitamin is called ascorbic acid?
 (a) Vitamin 'K' (b) Vitamin 'C' (c) Vitamin 'B₁₂' (d) Vitamin 'E'
21. Which disease is caused by the deficiency of vitamin 'C'?
 (a) Anaemia (b) Scurvy (c) Pellagra (d) Beri-beri
22. Which one of the following components of diet contains carbon, oxygen and hydrogen in the percentage of 76, 12 and 12 respectively?
 (a) Carbohydrates (b) Proteins (c) Fats (d) All the above
23. Which one of the following carbohydrates is included in complex carbohydrates?
 (a) Glucose (b) Cellulose (c) Fructose (d) Lactose

24. Which one of the following is not a macro-mineral?
 (a) Calcium (b) Sodium (c) Phosphorous (d) Iron
 [AI CBSE 2020]
25. The food component present in sugar is:
 (a) Fats (b) Proteins (c) Vitamins (d) Carbohydrates
 [AI CBSE 2020]
26. The main source of vitamin 'C' is:
 (a) Guava (b) Egg (c) Milk (d) Banana
 [AI CBSE 2020]
27. Match the following:
 (1) Energy yielding (a) Carbohydrates
 (2) Body building (b) Vitamins
 (3) Protective (c) Cellulose
 (4) Fibre (d) Proteins
 (a) c, d, a, b (b) b, d, c, a (c) a, d, b, c (d) c, b, a, d
28. Match the List-I with List-II and select the correct answer from the code given below:
 (Sample Paper 2021)

| List-I | | List-II | |
|---------|-----------|---------|-----------------|
| Vitamin | | Disease | |
| (i) | Vitamin A | (1) | Pyorrhoea |
| (ii) | Vitamin B | (2) | Rickets |
| (iii) | Vitamin C | (3) | Beri-Beri |
| (iv) | Vitamin D | (4) | Night Blindness |

| Code | | | | |
|------|---|----|-----|----|
| | i | ii | iii | iv |
| (a) | 2 | 4 | 3 | 1 |
| (b) | 1 | 2 | 4 | 3 |
| (c) | 4 | 3 | 1 | 2 |
| (d) | 3 | 1 | 2 | 4 |

29. Match the List-I with List-II and select the correct answer from the code given below:

| List-I | | List-II | |
|---------|-----------|---------|-----------------|
| Vitamin | | Disease | |
| (a) | Vitamin A | (i) | Scurvy |
| (b) | Vitamin B | (ii) | Anaemia |
| (c) | Vitamin C | (iii) | Night Blindness |
| (d) | Vitamin D | (iv) | Beri-Beri |
| | | (v) | Rickets |

| Code | | | |
|------|--------------------------------|---|--------------------------------|
| A | a-(v), b-(ii), c-(iii), d-(iv) | C | a-(iv), b-(iii), c-(v), d-(ii) |
| B | a-(iii), b-(iv), c-(i), d-(v) | D | a-(iii), b-(iv), c-(ii), d-(v) |

30. Match the List-A with List-B and select the correct answer from the code given below:

| List-A | | List-B | |
|--------|------------------------|--------|------------------------------|
| 1. | Colour compound | A | Lack of water during dieting |
| 2. | Dryness | B | Deficiency of vitamin A |
| 3. | Night Blindness | C | Make food appealing |
| 4. | Decreased bone density | D | Deficiency of Calcium |

| Code | | | |
|------|---------------------|-----|--------------------|
| (a) | 1-A, 2-B, 3-C, 4-D | (c) | 1-C, 2-A, 3-B, 4-D |
| (b) | 1-B, 2-C, 3-D, 4W-A | (d) | 1-D, 2-C, 3-B, 4-A |

31. Match the following and select the correct answer from the code given below:

| List-A | | List-B | |
|--------|-----------|--------|-----------------|
| 1. | Vitamin A | a. | Rickets |
| 2. | Vitamin B | b. | Night Blindness |
| 3. | Vitamin C | c. | Sterility |
| 4. | Vitamin D | d. | Beri-Beri |
| 5. | Vitamin E | e. | Scurvy |
| 6. | Vitamin K | f. | Goitre |
| 7. | Iron | g. | Anaemia |
| 8. | Iodine | h. | Blood Clotting |

| Code | | | |
|-------|------------------------|-------|------------------------|
| (i) | a, b, c, d, e, f, g, h | (v) | b, d, e, a, c, h, g, f |
| (ii) | b, d, c, a, e, g, h, f | (vi) | h, c, g, a, f, d, b, e |
| (iii) | c, d, b, e, a, f, h, g | (vii) | g, c, h, d, f, a, e, b |
| (iv) | g, h, f, d, e, b, c, a | | |

32. Match the following columns and select the correct answer from the code given below:

| Vitamin/mineral | Disease | Symptoms of disease |
|---------------------------|--------------------|----------------------------------|
| P. Vitamin A | 1. Goitre | d. Bones become soft |
| Q. Vitamin B ₁ | 2. Night Blindness | e. A gland in the neck swells up |

| | | |
|--------------|--------------|-----------------------------------|
| R. Vitamin C | 3. Rickets | f. Patient can't see in dim light |
| S. Vitamin D | 4. Scurvy | g. Affects the nervous system |
| T. Iodine | 5. Beri-Beri | h. Bleeding gums |

| Code | | | |
|------|-----------------------------------|---|-----------------------------------|
| A | P-4-f, Q-2-h, R-1-d, S-3-e, T-5-g | C | P-2-f, Q-1-e, R-4-h, S-5-g, T-2-g |
| B | P-2-f, Q-5-g, R-4-h, S-3-d, T-1-e | D | P-1-g, Q-4-f, R-5-h, S-2-e, T-3-d |

33. Given below are the two statements labelled Assertion (A) and Reason (R)
- A. Assertion (A):** Macro nutrients supply energy and are needed for growth and maintenance of the body.
- B. Reason (R):** Calcium, Potassium and Phosphorus are included in Macro nutrients.
- In the context of the above two statements, which one of the following is correct?
- (a) Both (A) and (R) are true and (R) is the correct explanation of (A).
 (b) Both (A) and (R) are true, but (R) is not the correct explanation of (A).
 (c) (A) is true, but (R) is false.
 (d) (A) is false, but (R) is true.
34. Which one of the following is not the example of micro minerals?
 (a) Iodine (b) Iron (c) Phosphorus (d) Copper
35. 1 gram of fat provides:
 (a) 2 kcal (b) 3 kcal (c) 9 kcal (d) 5 kcal
36. Which is not a micronutrient?
 (a) Vitamins (b) Water (c) Minerals (d) Protein
37. Vitamins, minerals and water are collectively known as food.
 (a) Body building (b) Energy giving (c) Protective (d) Additional
38. Food intolerance can cause
 (a) Diarrhoea (b) Anaemia (c) Fatigue (d) Loss of appetite

Short Answer Questions-I (Carrying 2 Marks)

- Discuss any two macro-minerals on the basis of their sources and benefits. *(Sample Paper 2021)*
- Discuss any two fat soluble vitamins on the basis of their sources and benefits. *(Sample Paper 2021)*
- Mention the sources and benefits of proteins.
- Discuss any two non-nutritive components of diet along with their sources.
- Discuss any two pitfalls of dieting.
- Briefly discuss food intolerance.
- Clarify the difference between food and nutrition in brief.
- Differentiate between macro-nutrients and micro-nutrients.
- Write down the values of BMI of following weight categories according to WHO.

| | |
|---------------------|-------------------------|
| Underweight | Obesity Class I |
| Normal weight | Obesity Class II |
| Over weight | Obesity Class III |
- Differentiate between simple carbohydrates and complex carbohydrates.

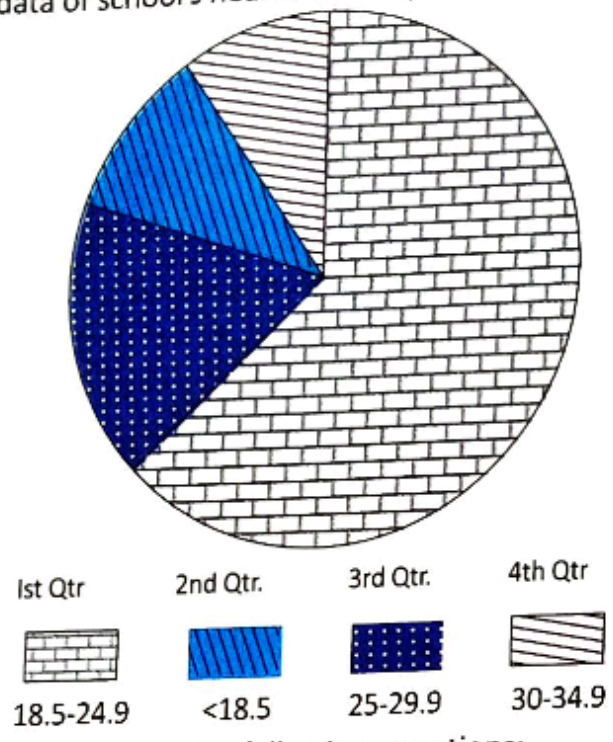
Short Answer Questions-II (Carrying 3 Marks)

1. Clarify the meaning of balanced diet in brief.
2. What do you mean by macro and micro nutrients?
3. What do you mean by nutritive and non-nutritive components of diet?
4. Briefly explain about vitamins.
5. Enlist the forms of vitamin B and explain any one of them in brief.
6. What is roughage? Explain in brief.
7. Explain in brief, the importance of water.
8. What do you mean by colour compounds?
9. Briefly explain any two food myths.
10. What do you mean by macro nutrients? Explain about any two macro nutrients.
11. What do you mean by micro nutrients? Discuss about macro and micro minerals.
12. What do you mean by vitamin? Explain about fat soluble and water soluble vitamins.
13. Discuss protein as the nutritive component of diet.
14. What do you mean by water soluble vitamins? Explain about them in brief.
15. Discuss about mineral as nutritive component of diet.
16. Discuss water and roughage as a non-nutritive components of diet.
17. Enlist the non-nutritive components of diet. Explain about any two components of diet. [AI 2020]
18. Discuss any four pitfalls of dieting.
19. Discuss the causes and management of food intolerance.
20. What do you mean by food myths? Briefly explain about four myths.
21. In sports such as Boxing and Wrestling, do players tend to lose weight sharply? Explain the pitfalls of dieting. [CBSE Sample Paper 2015]
22. Briefly explain the functions and resources of three fat soluble vitamins. [AI 2016]
23. Write briefly about protein as an essential component of diet. [CBSE Sample Paper 2016]
24. Discuss any four pitfalls of dieting.
25. Mention the difference between macro and micro nutrients. [AI 2020]
26. What do you understand by food myths?

Or

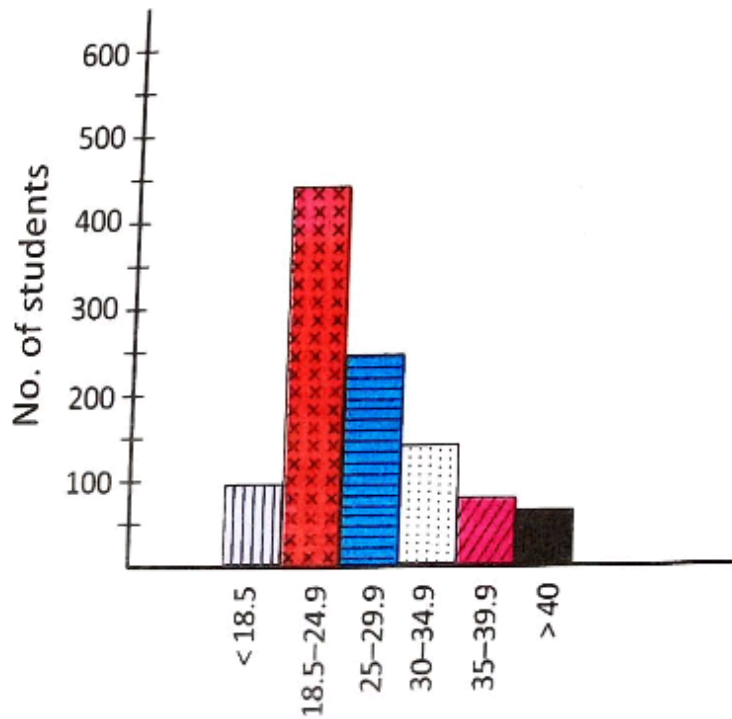
- Discuss briefly about various food myths. [Delhi 2016]
27. Explain various pitfalls of dieting. [CBSE Compt. 2018, AI 2020]
 28. List down the nutritive components of diet and explain any one. [AI 2020]
 29. What do you understand by "non-nutritive components"? Elucidate any four non-nutritive components of diet. [AI 2020]
 30. Define Balanced Diet Explain any four micro nutrients. [AI 2020]
 31. Compare any three micro-minerals on the basis of their sources and benefits. (Sample Paper 2021)
 32. Compare any three fat soluble vitamins on the basis of their sources and benefits. (Sample Paper 2021)

33. Below given is the BMI data of school's health check up.



- On the basis of the above data; answer the following questions:
- A. In which category does the major student population fall into?
(a) Obese (b) Normal weight (c) Under weight (d) Over weight
- B. The school has to develop an activity based program to decrease the number of:
(a) (b) (c) (d)
- C. Which category is related to underweight?
(a) (b) (c) (d)

34. The following is the BMI data of a school's annual health check up.

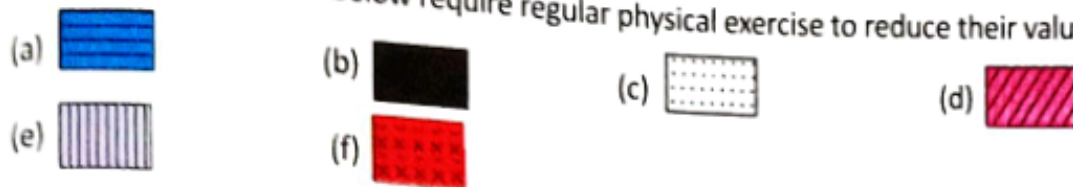


(Graphical representation of student's BMI)

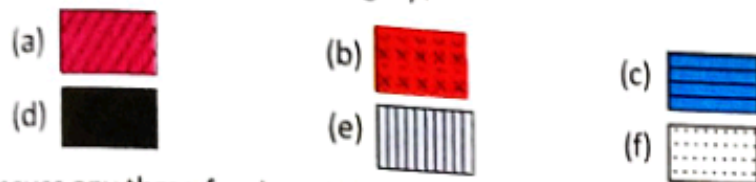
On the basis of the given data; answer the following questions:

- (i) In which category does the maximum number of students fall into?
 (a) Over weight (b) Under weight (c) Normal weight
 (d) Obese class III (e) Obese class I (f) Obese class II

(ii) Which categories stated below require regular physical exercise to reduce their values of BMI?



(iii) Which of the following categories require sufficient nutrition for enhancing the value of BMI? Also state the name of the category?



35. Discuss any three food myths.
36. Discuss any three methods to control healthy body weight.
37. Discuss any three non-nutritive components of diet.
38. Randhir, a national level boxer has been advised by his boxing coach to take sufficient amounts of simple carbohydrates, vitamins, proteins and minerals in his daily diet along with the regular training. He has also been advised to follow the diet plan strictly and be aware of the drawbacks of unsupervised dieting.
- A. Which one of the following is a pitfall of dieting?
 (a) Skipping meals (b) Reducing energy giving food
 (c) Drinking a lot of water (d) Taking food supplements
- B. Amino acids and protein are the of life.
 (a) Building blocks (b) Training blocks (c) Fitness blocks (d) Both 'a' and 'b'
- C. Glucose, Fructose and Lactose are
 (a) Simple carbohydrates (b) Complex carbohydrates
 (c) Minerals (d) Fats
39. Raju, a student of class XII, has recently joined a gym to get a muscular body. He consults his gym trainer about his diet and is advised to enhance the intake of protein in his diet.
- A. Protein helps in
 (a) increasing bone density (b) Protoplasm formation
 (c) Antibodies formation (d) Both 'b' and 'c'
- B. Deficiency of protein can cause
 (a) Rickets (b) Kwashiorkor (c) Scurvy (d) Night blindness
- C. Proteins are also known as
 (a) Nitrogenous food (b) Body building food
 (c) Fatty food (d) Both 'a' and 'b'
40. In an annual health check-up, Rohit a student of IX class was diagnosed with beri-beri disease. His father consulted his family doctor and asked the doctor more about the details of this disease.
- A. According to the doctors, this disease is caused due to the deficiency of
 (a) Vitamin B₅ (b) Vitamin B₁ (c) Vitamin B₃ (d) Vitamin B₇

- B. Other diseases which might occur due to the deficiency of this vitamin are
- (a) Irritation (b) Constipation
(c) Both 'a' and 'b' (d) High blood pressure
- C. Which one of the following is the symptom of Beri-beri?
- (a) Shortness of breath (b) Loss of appetite
(c) Swollen feet (d) All of these

Long Answer Questions (Carrying 5 Marks)

1. What do you mean by macro nutrients? Explain about any four macro nutrients.
2. What do you mean by micro nutrients? Explain in brief about minerals as micro nutrients in detail.
3. What do you mean by nutritive components of diet? Explain about any three of them in brief.
4. What do you mean by non-nutritive components of diet? Explain about any four non-nutritive components in brief.
5. What do you mean by healthy weight? Discuss about the methods to control healthy body weight for lifetime.
6. Elucidate about the various pitfalls of dieting in detail.
7. What do you mean by food intolerance? Explain the causes, symptoms and management of food intolerance in detail.
8. What do you mean by food myths? Explain any six food myths prevailing in contemporary society.
9. "Vitamins are essential for our metabolic process". What happens if we devoid our diet of vitamins?
[Delhi 2012]
10. Vitamins are very essential for the normal working of the body and are divided into two groups. Explain about them.
[AI 2015]
11. What is balanced diet? Explain the components of diet.
[AI 2014]
12. What are the nutritive and non-nutritive components of diet? Explain.
[AI 2017]
13. What do you mean by 'Healthy weight'? Explain the methods to control healthy body weight to lead healthy-living.
[Delhi 2017]
14. What do you mean by vitamins? Discuss the fat soluble and water soluble vitamins in detail.
15. Explain macro-nutrients and their role in our diet.
[CBSE 2019]
16. Sandeep is a student of XIIth class. He has sufficient knowledge about 'food and nutrition' being a student of Physical Education. In summer vacation, he goes to his grandparents village where he notices that few people of that village are suffering from goitre and severe anaemia.
 - A. Goitre is caused due to the deficiency of

(a) Iodine (b) Calcium (c) Iron (d) Potassium

 - B. Which one of the following minerals deficiency lead to anaemia?

(a) Sodium (b) Iron (c) Calcium (d) Copper

 - C. Fresh vegetables and fruits are rich sources of

(a) Vitamins (b) Minerals (c) Fats (d) Both 'a' & 'b'

 - D. Minerals are placed under nutrient category on the basis of required quantity.

(a) micro (b) macro (c) roughage (d) Non-nutritive

 - E. Which one of the following is not a macro nutrient?

(a) Fats (b) Protein (c) Vitamins (d) Carbohydrates

ANSWERS

Objective Type/Multiple Choice Questions

Give one word answers.

1. Balanced Diet
2. Elmer McCollum
3. Copper
4. Vitamin 'A'
5. Rhamnose ($C_6H_{12}O_5$)
6. Riboflavin
7. Vitamin 'D'

Fill in the blanks.

1. 90
2. Vitamins
3. Iodine
4. 4
5. ascorbic acid

State True or False.

1. True
2. True
3. False
4. True

Choose the correct answer.

1. (a) 2:1
2. (c) Protein
3. (a) Saturated fats
4. (c) Iron
5. (b) Vitamin 'C'
6. (b) Pellagra
7. (a) Iron
8. (c) Protein
9. (c) Niacin
10. (b) Vitamin K
11. (a) Vitamin K
12. (b) Protein
13. (a) Fish, meat and eggs
14. (c) Calcium
15. (d) Body fat
16. (c) $\frac{\text{Weight}}{(\text{Height})^2}$
17. (c) Vitamins
18. (b) 18.5 – 24.9
19. (b) Potassium
20. (b) Vitamin 'C'
21. (b) Scurvy
22. (c) Fats
23. (b) Cellulose
24. (d) Iron
25. (d) Carbohydrates
26. (a) Guava
27. (c) a, d, b, c
28. (c) i-4, ii-3, iii-1, iv-2
29. (B) a-(iii), b-(iv), c-(i), d-(v)
30. (c) 1-C, 2-A, 3-B, 4-D
31. (v) b, d, e, a, c, h, g, f
32. (B) P-2-f, Q-5-g, R-4-h, S-3-d, T-1-e
33. (c) (A) is true, but (R) is false
34. (c) Phosphorus
35. (c) 9 kcal
36. (d) Protein
37. (c) Protective
38. (a) Diarrhoea