



Student Name:	Sandy Alfonse Tawfik Hanna
Student Number:	30327
Course:	Diploma in diet and nutrition (Level 4)
Assignment NO:	11

Marking Criteria:

We expect the learners to write minimum one well expressed point in three lines against each allocated mark. This means one needs to write 15 lines with 5 well expressed points to get high grades for a 5 marks question.

For high grades use examples and illustrations where appropriate.

Assessment 11 Total Marks 30

1. Give short answers for the following questions: (14)

I. What are the recommended doses of folic acid before and after pregnancy?

The Department of Health recommends that all women who are planning a pregnancy, or who may become pregnant, should take a folic acid supplement. Supplementation should continue until the 12 week of pregnancy. Different doses are recommended depending on the level of risk. In addition women should be advised to increase their intake of folate-rich foods.

Recommended Doses of Folic Acid before Conception and After Pregnancy

High risk 5 mg daily

Low risk 0.4 mg daily

II. What are the dietary sources of folate?

Dietary sources of folate are:

Food Folate	content (microgram/ μ g)
Milk	1 pint 35
2 slices white bread	16
2 slices whole meal bread	30
1 serving spinach	80
1 serving green beans	50
1 serving potatoes	45
1 serving cauliflower	45

1 serving baked beans	50
1 orange	50
1 glass orange juice	40

III. How would you advise a woman who is planning to conceive on how to have a healthy diet?

Being a healthy body weight is important before pregnancy. If the woman is very underweight, it can be more difficult for her to conceive. Being obese may also cause problems with conceiving, especially if the woman suffers from Polycystic Ovary Syndrome.

Obesity during pregnancy increases the risk of complications during pregnancy, delivery, and in the few days after birth.

A woman who is planning a pregnancy should:

- ☐ Eat a diet based on healthy eating guide lines.
- ☐ Increase intake of folate-rich foods.
- ☐ Take a supplement of folic acid until 12th week of pregnancy.
- ☐ Avoid liver or products containing it.
- ☐ Avoid any dietary supplements containing Vitamin A.
- ☐ Stop taking oral contraceptive three months before planned conception

IV. What should a healthy and balanced diet include to fulfill the needs of a pregnant woman?

With a few exceptions, one can continue to eat a normal, healthy diet before and during pregnancy. This includes regular meals and snacks, and a sensible healthy eating regime containing

- ☐ Plenty of starchy carbohydrates - bread, rice, pasta, breakfast cereals, chapattis, couscous, and potatoes.
- ☐ Plenty of fruit and vegetables - at least five portions a day.
- ☐ Low or reduced fat dairy products such as milk, yoghurt, fromage frais, and pasteurised cheeses.
- ☐ Lean sources of protein, such as, meat, poultry, fish, eggs (well-cooked), beans, and pulses;.
- ☐ Not too many fat-rich and sugary foods.
- ☐ At least eight medium glasses of water each day.
- ☐ Very little or no alcohol.

V. What are the recommended foods to overcome problems like nausea and vomiting?

Nausea and vomiting are common, particularly in early pregnancy, but usually subside by the 16th week.

There is no harm in snacks replacing full meals provided that the snacks are nutritious.

Suitable snacks include:

Plain biscuits or crackers

- ☐ Breakfast cereals;
- ☐ Hot or cold milk drinks
- ☐ Yoghurt
- ☐ Fresh fruit or raw vegetables
- ☐ Jacket potatoes
- ☐ Sandwiches
- ☐ Soups
- ☐ Bread or toast

VI. What is weaning? When it should be started?

At six months, a baby's digestive system has matured enough to cope with solid food, and other developmental changes (such as the ability to bite and chew) mean the baby is ready to experience new tastes and textures. The Department of Health recommends that weaning shouldn't be introduced until the age of six months, but the baby may show signs of wanting to try solids earlier than this. The aim of weaning is gradually to introduce a variety of tastes and textures so that by the age of one the baby is enjoying a varied and healthy diet.

VII. What should be added to the diet of babies who are on vegetarian food?

For those who have decided not to give their baby meat or fish, they must make sure that they give their babies two servings a day of pulses (such as, red lentils, beans, or chickpeas), or tofu to make sure that the baby gets all the energy and nutrients he/she needs. The vitamin C in fruit and vegetables might help bodies absorb iron, so they should be given fruit and vegetables at mealtimes. It is especially important to give vitamin drops to babies who are on a vegetarian diet.

Vegan diets, which contain no foods or by-products from animals, cannot easily give babies all the energy and nutrients they need. For this reason, vegan diets aren't recommended for young babies.

2. Explain the stages of weaning in detail. (8)

Stages of Weaning

Stage 1

When starting to give baby solid foods, a teaspoon of one of the following can be mixed with the baby's

usual milk (both breast and formula):

- ☐ smooth vegetable purées, such as carrots, parsnips, potatoes, or yams.
- ☐ fruit purées, such as bananas, cooked apples, pears, or mangoes.
- ☐ cereal (not wheat-based), such as, baby rice, sago, maize, cornmeal, and millets.

This should be offered to the baby before or after one of the usual milk feeds, or in the middle of a feed, if that works better. Most babies take time to learn how to take food from a spoon, so one should be patient and be prepared for some mess. Food should not be forced on the baby. If the food really doesn't seem to be wanted, it should be stopped and one should wait until the next time. The main aim at this stage is to get the baby used to the idea of taking food from a spoon. The baby will still be getting most of their nourishment from breast or formula milk (around 500-600 ml a day).

Stage 2

Feeds will still be mainly breast or formula milk (around 500-600 ml a day), but gradually the amount of solid food can be increased, either before, during, or after the milk feed. At the same time, one can move gradually from solid food at one feed in the day to solid food at two, and then three feeds. At this stage the baby can be given full-fat cows' milk products, such as yoghurt or cheese sauce as a solid food.

Cereals can also be given to the baby but just once a day. Different foods and different tastes can also be added. Foods already cooked for the family just as mash, sieve, or purée can also be tried but in a small amount and without adding salt, honey or sugar.

Preparing larger quantities than required and then freezing small portions for later use, for example, in an ice cube tray, can save time and effort.

More first Foods to Try

Add to the vegetable, fruit, and cereal purées other foods, such as:

- ☐ Purées of meat and poultry
- ☐ Purées of pulses, such as, lentils (dahl), hummus
- ☐ Full-fat milk products such as yoghurt or fromage frais - unless advised otherwise by health visitor or GP
- ☐ Full-fat milk can also be used for cooking, for example in cheese sauce, but it should be avoided giving it to the baby as a drink until after they are a year old.

Stage 3

As solid food becomes a bigger part of a baby's diet, it's important to offer a range of different foods.

This is to provide the baby with all the vitamins and minerals they need. The baby should still be having a minimum of 500-600 ml of breast or formula milk a day.

The baby should be given two to three servings a day of starchy foods such as potatoes, yams, rice or bread. Fruit and vegetables make good finger foods and should be included at two or more meals each day. The baby should have one serving of soft cooked meat, fish, egg, tofu or pulses such as beans or lentils (dahl) a day. Red meat such as beef and lamb is an excellent source of iron. Eggs (well cooked) are a quick, nutritious and cheap source of protein.

As babies continue to develop, foods with a thicker consistency and a lumpier texture can be introduced to encourage them to learn to chew and manage small pieces of food, even if they don't have teeth yet.

Finger foods such as toast, bread, breadsticks, pitta bread or chapatti, peeled apple, banana, carrot sticks, or cubes of cheese can be given to the baby.

Sweet biscuits and rusks, should be avoided so that the baby doesn't get into the habit of expecting sweet snacks.

Once the baby is over six months, they can be given vitamin drops containing vitamins A, C and D.

However, if the baby is on infant formula, there is no need to start giving them vitamins until they are having less than 500 ml of formula a day. This is because infant formula already contains added vitamins and minerals.

Stage 4

As the baby became increasingly used to eating solid foods, they should be learning to fit in with the family by eating three minced or chopped meals a day, plus breast or formula milk as the main drink (around 500-600 ml a day).

The baby should be given fruit or other healthy snacks between meals.

Babies have small stomachs and they need energy to grow, so they should be given full-fat dairy products. Cutting back on fat is sensible for adults, but not for babies or young children. Three to four servings a day of starchy foods and of fruit and vegetables should be given to the baby.

Biscuits and cakes should be avoided because these foods will fill the baby up without providing the right nutrients.

3. Which diets are best for athletes? Discuss

All athletes need a diet that provides enough energy in the form of carbohydrates and fats, as well as, essential protein, vitamins, and minerals.

This means a diet containing 55-60% of calories from carbohydrates (10-15% from sugars and the rest from starches), no more than 30% of calories from fat and the remaining (about 10-15%) from protein. That translates into eating a variety of foods every day, including grains, vegetables, fruits, beans, lean meats, and low fat dairy products. The base of the diet should come from carbohydrates in the form of starches and sugars. Fluids, especially water, are also important in the winning combination. Dehydration can stop even the finest athlete from playing their best game.

When starches or sugars are eaten the body changes them all to glucose, the only form of carbohydrate used directly by muscles for energy. Whether carbohydrates are in the form of starches (in vegetables and grains), sucrose (table sugar), fructose (found in fruits and juices), or lactose (milk sugar), carbohydrates are digested and ultimately changed to glucose. The body uses this glucose in the blood for energy. Most glucose is stored as glycogen in the liver and muscles. During exercise glycogen is broken down in the muscles and provides energy. Usually there is enough glycogen in muscles to provide

fuel for 90 to 120 minutes of exercise. Most exercise and sport games do not use up glycogen stores so eating carbohydrates during the activity usually isn't needed. However, for some athletes, eating or drinking carbohydrates during exercise helps maintain their blood glucose and energy levels.

Most athletes need not be concerned with 'carbohydrate loading', the special technique of eating a lot of carbohydrates for several days before an endurance event. Instead, focus on getting enough carbohydrates every day. The best way to ensure plenty of energy for exercise is to eat a nutritious, balanced diet that is high in carbohydrates and low in fat with lots of different foods.

Fat

Fat is a vital source of energy for lengthy, lower to moderate-intensity exercise and sport training.

Healthy sources of fat include fatty fish, nuts, nut oils, vegetable oils, spreads made from a vegetable oilbase, avocados, and olives. Athletes should limit their in-take of saturated fats, which comes from dairy foods, such as, whole milk, butter, and high-fat cheese and animal products, such as, lard and highly marbled cuts of meat.

However, since dairy and animal products contribute energy and nutrients to the diet, they can opt for leaner options, such as low-fat or fat-free milk, low-fat cheeses and lean, trimmed meats. This way, they can get calcium and protein with much less saturated fat, they should minimise consumption of foods that contain trans-fats, such as hydrogenated oils.

Protein

Intensive training results in deposition of protein in the muscle, which leads to an increased requirement for protein. In most cases, adequate protein can be obtained from the diet. Eating large quantities of meat, milk, eggs, and cheese is expensive, and because it may reduce the appetite for carbohydrate-rich foods, it should not be encouraged. Protein needs depend on the type of training.

Fluids and Electrolytes

Prolonged exercise leads to a loss of water and electrolytes from the body. As much as two litres of fluids an hour can be lost during prolonged exercises in a hot environment. Thirst is not always a reliable indicator of the state of hydration, and athletes should always drink plenty of fluid before, during and after an event. Athletes should be advised to drink 200-500 ml of fluid about 20 minutes before the event. Urine production falls as soon as the exercise begins, so there should be no necessity for a toilet stop.

Student Statement:

By submitting this assignment, I confirm that this is my own work.

Student Signature	Sandy Alfonse	Date	31/07/2019
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For Tutor / Assessor Use Only

Total Marks	
Marks Obtained	
Percentage / Grade	