BRENTWOOD
OPEN LEARNING COLLEGE

Assignment Cover Sheet

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Course:	Diploma in diet and nutrition (Level 4)
Assignment NO:	10

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 10 Total Marks 30
Q.1. Multiple Choice Questions: (05)
i. How many women get advance warning of an approaching period?
a) 90%
b)60%
c) 30%
ii. Evening primrose oil is very effective in relieving:
a) premenstrual syndrome
b) menopause
c) premenstrual breast pain
iii. In western women the menopause occurs on average at:
a) 60 years
b) 55 years
c) 51 years
iv. To reduce the risk for osteoporosis one should get enough:
a) vitamin A and C in the diet
b) calcium and vitamin D in the diet
c) vitamins K and D in the diet
v. The cells that continuously dissolve bone into its component materials are called:
a) osteoporosis
b) osteoblasts
c) osteoclasts

vi. Bone is a static tissue, true or false?
a) True
b) False
vii. The factors that can increase the risk of bone loss are divided into:
a) Two groups
b) Three groups
c) Several groups
viii. The recommended daily intake of calcium for an adult is around:
a) 500 mg
b) 600 mg
c) 800 mg
ix. On average 250 ml of cow's milk or 150 g of yogurt contains:
a) 200 mg of calcium
b) 300 mg of calcium
c) 500 mg of calcium
x. Frail, elderly people with poor mobility may be helped by taking a calcium supplement along with:
a) vitamin A
b) vitamin K
c) vitamin D

Q.2. Short Questions: (21)
All Questions carry equal marks.

i. How does a bone repair itself after a fracture?

When increased loads are repeatedly put upon a bone, the osteoblasts become more active, laying down more bone and increasing the strength of the region. When a bone fractures, osteoblasts go into overdrive around the fracture site, laying down more collagen fibres and minerals on top to strengthen them.

ii. How does osteoporosis affect a bone?

In osteoporosis, the osteoclasts - usually over years rather than days or weeks - dissolve a bit more bone than is replaced, which results in weaker bones. Fractures in bone affected by osteoporosis are most
likely in areas where there is a greater percentage of the honeycomb type of bone, which is less able to
take the shock of a fall:
- in the wrist
- in the femur close to the hip joint (which is called the 'neck' of the femur)
- in the vertebrae of the lower spine

Hip and wrist fractures usually result from falls, whereas fractures of the spine tends to occur spontaneously, when a weakened vertebra crumples under the stress of supporting the body's weight.

iii. How can osteoporosis be prevented in women?

These general measures can be used by everyone to avoid osteoporosis:

 Excessive running may cause increased bone loss. Because some runners are very thin, they should take advice on the best way to avoid bone problems later in life. The majority of us, who are not in the elite athletic category, need not be so concerned.
 Healthy bones at least partially reflect healthy living: taking regular exercise is the single most important action anyone can take to improve the strength of their bones.
 Exercise also greatly reduces the risk of heart disease, high blood pressure, and diabetes and it also has positive effects on mental wellbeing, as well.
 The sort of exercise that's beneficial in preventing osteoporosis is weight-bearing, such as walking or aerobics.
 Stopping smoking should be a priority for anyone interested in enjoying a longer life and keeping away from orthopaedic wards.
 Alcohol consumption should also be kept within safe limits.

Non-dairy food sources of calcium

 Nuts and pulses: almonds, Brazil nuts, hazelnuts, and sesame seeds
 Green leafy vegetables: broccoli, spinach, watercress, and curly kale
 Dried fruits: apricots, dates, and figs
 Fish: mackerel, pilchards, salmon, and sardines
 Tofu and various calcium-fortified foods

A good calcium intake is essential throughout life for healthy bones. There is good evidence that the adequacy of a child's diet at least partially determines their osteoporosis risk in adulthood. The recommended daily intake of calcium for an adult is around 800 mg. On average, 250 ml (half a pint) cow's milk or 150 g (5 oz) yoghurt contains 300 mg of calcium. Low-fat dairy products contain the same amount of calcium as higher fat varieties.

iv. How can hot flushes be avoided in menopause?

Hot drinks, such as tea, coffee, and some alcoholic drinks, and eating spicy foods should be kept to a minimum. Avoiding tea and coffee is also a good idea because caffeine can cause insomnia and lead to calcium being lost from the body at a greater rate.

Drinking plenty of water - it's a great cleanser and purifier and can help with many of the symptoms, including hot flushes, headaches, and dry skin.

v. What is menopause?

Menopause, also called the change of life, is defined as the end of the last menstrual period. In Western women, it occurs on an average at 51 years, but there is a wide range of normal extending from early 30s to mid-to-late 60s

vi. What causes PMS?

Hormone Levels

Measuring hormone levels does not help a woman understand her PMS because there are no differences between women who get PMS and those who don't. It is not exactly known exactly what causes PMS.

Common sense indicates that it must somehow be linked to the fluctuating levels of female hormones experienced after ovulation. But the subtleties of why some women are more affected than others are not understood. Normal fluctuations in hormone levels are responsible for some of the symptoms most commonly associated with the monthly cycle, such as, bloating, breast tenderness, and/or headaches.

Women who suffer from PMS may possibly have a lower than normal levels of a certain chemical in their brain (serotonin), which may explain some of the non-physical symptoms such as irritability, depression, and mood swings.

PMS is not caused by any underlying abnormality with the pelvic organs.

Nutrition Tips

Lack of certain vitamins and minerals is said to affect the level of the hormones of the menstrual cycle.

Some researchers claim that women with PMS have either an imbalanced diet or existing deficiencies in their body which are not being corrected by their diet. A typical British diet includes a great deal of sugar, processed foods, additives and salt, and is not a good source of vitamins and minerals. These researchers claim that a change in diet and the use of certain vitamins and minerals have been highly effective for many women.

Women with chronic deficiencies may need dietary supplements but there is no single vitamin or mineral which is appropriate for all women. The exact supplements and their quantities depend on each woman's individual symptoms.

According to the Women's Nutritional Advisory Service, it is necessary to find out the exact nutritional cause of PMS in each woman and then to work out a nutritional programme to overcome her symptoms.

vii. How does female hormone work?

From the end of a woman’s period until she ovulates again, there is a rise in her level of oestrogen. Oestrogen encourages cell growth by building up the endometrium. It also nourishes the endometrium by increasing blood supply to it so that woman’s womb is ready for one of her eggs to be implanted if that egg is fertilised. Ovulation occurs and this is two weeks from the end of her last menses (this period can vary). For the next two weeks before a woman’s next period begins, progesterone levels rise and become greater than oestrogen levels. Progesterone ripens the endometrium, in case fertilisation occurs and an egg needs to be implanted. If fertilisation does not occur, then

oestrogen and progesterone levels fall and the endometrium is shed from the uterus, resulting in the next period.
However, women's cycles vary. If a cycle is too short or too long, or if oestrogen and progesterone do not rise and fall in the described pattern, the woman may be told that her hormones are out of balance.

Case Study (4)

Carol is in her early 40s. She complains of extreme fatigue, hot flushes, dryness and forgetfulness. She did not have her period for the last three months. She is running her own business and is currently under a lot of stress. Her diet primarily consists of refined
processed foods because she thinks that she does not have enough time to cook and even to eat properly. She often skips her meals and does not take regular exercise.

1) Carol's problems suggest that she is suffering from:
a) PMS
b) PMDD
c) Menopause
2) With her present problems, is she at risk of developing osteoporosis?
a) Yes
b) No
3**) What major changes should she make in her diet?**
a) She should immediately start taking multivitamin supplements.
b) She should drink lots of tea and coffee.
c) She should include whole foods and healthy fats in her diet

Student Statement:

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

Student Signature	Sandy Alfonse	Date	31/07/2019

For Tutor / Assessor Use Only

Total Marks	
Marks Obtained	
Percentage / Grade	