**ST MARY’S UNIVERSITY**

**TWICKENHAM, LONDON**

BA//BSc Degree Examination students registered for

Level **FOUR**

Title**: Introduction to Nutrition 1**

Code: **NUT4032**

Semester: **ONE**

Date: **January 8th 2019** Time: **9:30 – 11:00AM**

TIME ALLOWED: **ONE** HOUR AND **THIRTY** MINUTES

Please answer **ALL** questions in the separate form.

If an error occurs, please put an ‘X’ thorough the incorrect answer.

If you would like to return to the original answer circle the ‘X’

Answer **ALL** questions.

Write your Regnum on **ALL** pages

You may use an approved calculator

1. The metabolisable energy of foods is measured using a:

a) Osmometer

b) Bomb calorimeter

c) Bod Pod

d) Human calorimeter

1. The heat of a sample of breakfast cereals (1g) measured using a bomb calorimeter was 4000 calories. How many Kcal in a 100g portion?
2. 4000 Kcal/100g
3. 400 Kcal/100g
4. 40Kcal/100g
5. 4Kcals/100g
6. What is a factor that determines basal metabolic rate (BMR)?
7. The weight of a person
8. The age of a person
9. The lean body mass of a person

a) I & II

b) I & III

c) II & III

d) All of the above

1. Which of the following may induce thermogenesis?
2. Caffeine
3. Nicotine
4. Alcohol

a) I & III

b) II & III

c) I & II

d) All of the above

1. What is the (Physical Activity Value) PAL value for the average population?
2. 1.74
3. 1.63
4. 1.55
5. 1.90
6. Carbohydrates are compounds comprised of:
7. Carbon, nitrogen, water
8. Carbon, nitrogen, oxygen
9. Carbon, hydrogen, water
10. Carbon, hydrogen, oxygen
11. Which process is responsible for the creation of disaccharides from monosaccharides?
12. Hydrolysis
13. Oxidation
14. Condensation
15. Deamination
16. Sucrose is made up of:
17. Glucose + Glucose
18. Glucose + Galactose
19. Fructose + Glucose
20. Fructose + Galactose
21. What is the NSP reference intake in UK adults?
22. 18g
23. 13g
24. 20g
25. 30g
26. In human nutrition the principle Non Starch Polysaccharides (NSP) are comprised of:
27. Muscle cell walls
28. Plant cell walls
29. Sucrose
30. Sugar alcohols
31. Which of the following food groups makes the largest contribution to NSP intake in UK adults?
32. Sweets and confectionaries
33. Meat and Fish
34. Eggs and Tofu
35. Cereals and cereal products
36. Which of the following are both types of carbohydrate?
37. Fat and oligosaccharides
38. Fat and amino acids
39. Starch and oligosaccharides
40. Starch and amino acids
41. Excessive oligosaccharides consumption may cause:
	1. Weight gain
	2. Bloating and gas
	3. Constipation
	4. Diabetes
42. Which is an essential amino acid?
43. Leucine
44. Glycine
45. Proline
46. Serine
47. Which of the following amino acid is notessential for adults?
48. Arginine
49. Phenylalanine
50. Tryptophan
51. Leucine
52. The two main protein deficiencies conditions are:
53. Beriberi and pellagra
54. Scurvy and rickets
55. Marasmus and kwashiorkor
56. Goitre and anaemia
57. Which of these is NOT a function of protein in the body of a healthy person?
58. Provides a major source of energy
59. Provides a structural role
60. Act as catalysts for reactions
61. Transports substances around the body
62. Protein complementation is:

a) Combing sources of incomplete proteins to ensure optimal amino acid profile

b) A way of defining biological value

c) Eating certain carbohydrates alongside protein to increase recovery

d) None of the above

1. Which of the following provides protein of a high biological value?
2. Apple juice
3. Beef steak
4. Chia seeds
5. Apples
6. Which of the following enzymes is notinvolved in the digestion of protein?
7. Pepsin
8. Trypsin
9. Amylase
10. Protease
11. Which of the following groups have increased protein requirements?

I Pregnant women

II Lactating women

III Men over 50 years

IV Men who are housebound

1. I & II
2. I, II & IV
3. All of the above
4. None of the above
5. What is one of the limiting amino acid in cereal grains?
6. Methionine
7. Lysine
8. Tryptohan
9. Phenylalanine
10. Oily fish store fat reserves in the:
11. Liver
12. Flesh
13. Muscle
14. All of the above
15. Which are the main omega-3 fatty acids found in oily fish?
16. EPA and linolenic acid
17. Linolenic and alpha-linoleic
18. EPA and DHA
19. DHA and linolenic
20. Every triacylglycerol molecule contains:
21. One molecule of glycerol and three fatty acids
22. One fatty acid and three molecules of glycerol
23. One molecule of glycerol and one fatty acid
24. Three fatty acids only
25. Identify the role(s) of fat from the following:
26. Provides the same amount of fibre as carbohydrates
27. Maintenance of the structure of cell membranes
28. Promotes strengthening of the bones
29. All of the above
30. According to the Department of Health (1991):
31. Total fat intake should provide an average and not exceed 15% of total energy intake.
32. Total fat intake should provide an average and not exceed 45% of total energy intake.
33. None of the above
34. Total fat intake should provide an average and not exceed 33% of total energy intake.
35. The nomenclature of fats outlines the location of double bond from which end of the chain?

a) Carboxyl

b) Methyl

c) Nitrogenous

d) Oxidative

1. Which phrase is related to transporting fat in circulation?

a) Glycogen

b) Glycerol

c) Chylomicrons

d) Spleen

1. What does LDL stand for?
2. Low Density Lipoprotein
3. Low Degree Lipoprotein
4. Low Density Linoleic acid
5. Low Degree Linoleic acid
6. What is the maximum number of alcohol units recommended per week for men?
7. 12
8. 20
9. 13
10. 14
11. Excessive alcohol consumption by pregnant women increases their risk of:
12. Miscarriage
13. Triplets
14. Heart disease
15. Diabetes
16. How much energy would 50g of alcohol provide?
17. 70 kcal
18. 200 kcal
19. 450 kcal
20. 350 kcal
21. In nutrition guidelines, what does DRV stand for?

a) Dietary recall validation

b) Diet response value

c) Dietary record verification

d) Dietary reference value

1. Which DRV is used for energy?
2. LRNI
3. EAR
4. % Energy Intake
5. RNI
6. What is the reference national diet and nutrition survey in the UK?
7. NDNS
8. NHS
9. SPSS
10. HEHS
11. What is the L.O.V dietary style?
12. Lacto-Ovo-Vegetarian
13. Lactose –Ovo- Vegetation
14. Lysine-Ovalbumin- Vegetation
15. Lactate-Ovalbumin-Vegetarian
16. Cream cheese contain 30g protein/100g, toast contains 10g protein per 100g, If you spread 25g of cream cheese on a toast weighing 50g, how much protein does this contain together?
	1. 7.5 g protein
	2. 12.5g protein
	3. 15.5g protein
	4. 18.5 g protein
17. A jam doughnut contains 2g protein, 17g fat and 70g carbohydrate. How much energy does this jam doughnut provide?
18. 441 Kcals
19. 341 Kcals
20. 241Kcals
21. 541Kcals
22. A small portion of spicy vegetable curry contains 5g protein, 14g fat and 58g carbohydrate. How much energy comes from fat, approximately?
	1. 22%
	2. 44%
	3. 33%
	4. 55%

**END OF EXAMINATION**

**Multiple Choice Questions Answer Sheet NUT4032:**

**Regnum……………………..**

|  |  |
| --- | --- |
| **Question:** | **Answer:** |
| 1 |  |
| 2 |  |
| 3 |  |
| 4 |  |
| 5 |  |
| 6 |  |
| 7 |  |
| 8 |  |
| 9 |  |
| 10 |  |
| 11 |  |
| 12 |  |
| 13 |  |
| 14 |  |
| 15 |  |
| 16 |  |
| 17 |  |
| 18 |  |
| 19 |  |
| 20 |  |
| 21 |  |
| 22 |  |
| 23 |  |
| 24 |  |
| 25 |  |
| 26 |  |
| 27 |  |
| 28 |  |
| 29 |  |
| 30 |  |
| 31 |  |
| 32 |  |
| 33 |  |
| 34 |  |
| 35 |  |
| 36 |  |
| 37 |  |
| 38 |  |
| 39 |  |
| 40 |  |