**ST MARY’S UNIVERSITY**

**TWICKENHAM, LONDON**

BSc Degree Examination students registered for

Level **FIVE**

Title**: Lifespan Nutrition**

Code: **NUT5035**

Semester: **ONE**

Date: **7th January 2020**

Time: **1:30 pm – 3:30 pm**

TIME ALLOWED: **TWO** HOURS

**SECTION A:** Answer **TWO** questions from this section; each question is worth 15 marks.

1. Discuss the impact of body fatness on female fertility (15 marks).

1. What are the recommendations for dietary folate and folic acid supplementation during the pre-/peri-conception stage? (7 marks). Provide a brief rationale and cite key evidence to support these recommendations (8 marks).
2. Discuss the concerns about commercial baby foods that were raised by the charity First Steps Nutrition in the UK (15 marks).
3. For any two nutrients, state the additional nutritional requirements during adolescence (vs. childhood). Your answer must include the relevant Dietary Reference Values and provide an explanation for any variation between values for males and females (15 marks).

**SECTION B:** Answer **TWO** questions from this section; each question is worth 35 marks.

1. David Barker proposed that alterations to foetal nutrition, environment and birth weight may result in developmental adaptations that permanently change structure, physiology and metabolism, thereby predisposing individuals to disease in adult life.
   1. Using relevant studies/data, provide a detailed account of 3 such conditions (30 marks).
   2. What conclusions can be drawn from the studies regarding the condition discussed? (5 marks)
   3. Define exclusive breastfeeding and describe the benefits of such feeding to both mother and infant (10 marks).
   4. Describe the endocrine control of lactation and the Letdown reflex; explain how this reflex underpins advice to breastfeeding mothers to feed their baby on demand (25 marks).
   5. State the Body Mass Index centile thresholds that are used to classify children as underweight, overweight and obese, at a UK population level. According to these thresholds, what proportion of children are classified as overweight and obese, as measured in the National Child Measurement programme? (10 marks).
   6. Discuss how parental factors may influence the risk of childhood obesity (25 marks)
   7. Define under-nutrition (5 marks).
   8. Giving examples, explain how the following factors influence food intake and choice in the older adult:
      1. Physiological factors (10 marks)
      2. Psychological factors (10 marks)
      3. Social factors (10 marks)

**END OF EXAMINATION**