



Rewarding Learning

**General Certificate of Secondary Education
2018**

**Home Economics:
Child Development**

Unit 1

Parenthood, Pregnancy and
the Newborn Baby

[GCD11]

WEDNESDAY 30 MAY, MORNING

**MARK
SCHEME**

General Marking Instructions

Introduction

The main purpose of the mark scheme is to ensure that examinations are marked accurately, consistently and fairly. The mark scheme provides examiners with an indication of the nature and range of candidates' responses likely to be worthy of credit. It also sets out the criteria which they should apply in allocating marks to candidates' responses.

Assessment objectives

Below are the assessment objectives for Home Economics: Child Development.

Candidates should be able to:

- AO1** Recall, select and communicate their knowledge and understanding of a range of contexts;
- AO2** Apply knowledge, understanding and skills in a variety of contexts and in planning and carrying out investigations and tasks; and
- AO3** Analyse and evaluate information, sources, and evidence; make reasoned judgements and present conclusions.

Quality of candidates' responses

In marking the examination papers, examiners should be looking for a quality of response reflecting the level of maturity that may reasonably be expected of a 16-year-old, the age at which the majority of candidates sit their GCSE examinations.

Flexibility in marking

Mark schemes are not intended to be totally prescriptive. No mark scheme can cover all the responses which candidates may produce. In the event of unanticipated answers, examiners are expected to use their professional judgement to assess the validity of answers. If an answer is particularly problematic, then examiners should seek the guidance of the Supervising Examiner.

Positive marking

Examiners are encouraged to be positive in their marking, giving appropriate credit for what candidates know, understand and can do rather than penalising candidates for errors or omissions. Examiners should make use of the whole of the available mark range for any particular question and be prepared to award full marks for a response which is as good as might reasonably be expected of a 16-year-old GCSE candidate.

Awarding zero marks

Marks should only be awarded for valid responses and no marks should be awarded for an answer which is completely incorrect or inappropriate and not worthy of credit.

Types of mark schemes

Mark schemes for tasks or questions which require candidates to respond in extended written form are marked on the basis of levels of response which take account of the quality of written communication.

Other questions which require only short answers are marked on a point for point basis with marks awarded for each valid piece of information provided.

Levels of response

In deciding which level of response to award, examiners should look for the 'best fit' bearing in mind that weaknesses in one area may be compensated for by strength in another. In deciding which mark within a particular level to award to any response, examiners are expected to use their professional judgement.

The following guidance is provided to assist examiners:

- **Threshold performance:** Response which just merits inclusion in the level and should be awarded a mark at or near the bottom of the range.
- **Intermediate performance:** Response which clearly merits inclusion in the level and should be awarded a mark at or near the middle of the range.
- **High performance:** Response which fully satisfies the level description and should be awarded a mark at or near the top of the range.

Quality of written communication

Quality of written communication is taken into account in assessing candidates' responses to all tasks and questions that require them to respond in extended written form. These tasks and questions are marked on the basis of levels of response. The description for each level of response includes reference to the quality of written communication.

For conciseness, quality of written communication is distinguished within levels of response as follows:

Level 1: Quality of written communication is basic.

Level 2: Quality of written communication is competent.

Level 3: Quality of written communication is highly competent.

In interpreting these level descriptions, examiners should refer to the more detailed guidance provided below:

Level 1 (Basic): The candidate makes only a limited selection and use of an appropriate form and style of writing. The organisation of material may lack clarity and coherence. There is little use of specialist vocabulary. Presentation, spelling, punctuation and grammar may be such that intended meaning is not clear.

Level 2 (Competent): The candidate makes a reasonable selection and use of an appropriate form and style of writing. Relevant material is organised with some clarity and coherence. There is some use of appropriate specialist vocabulary. Presentation, spelling, punctuation and grammar are sufficiently competent to make meaning evident.

Level 3 (Highly competent): The candidate successfully selects and uses the most appropriate form and style of writing. Relevant material is organised with a high degree of clarity and coherence. There is extensive and accurate use of appropriate specialist vocabulary. Presentation, spelling, punctuation and grammar are of a high standard and ensure that meaning is clear.

1 Read the following statements and tick the box beside each correct answer. (AO1)

(a) How many days is a normal menstrual cycle?
D 28

(b) The artificial starting of labour is called:
B induction

(c) The soft spot on the top of a newborn baby's head is called the:
B fontanelle

(d) In the womb the baby breathes, feeds and excretes through the:
C placenta

(e) Sperm is made in the:
B testes

(5 × [1])

[5]

5

2 (a) Write down three possible signs of pregnancy. (AO1)

- nausea, vomiting, morning sickness, feeling sick (sick = 0)
- a missed period
- constipation
- darker nipples/enlarged nipples/breasts/sensitive nipples
- sensitive breasts/sore breasts/tender breasts
- metallic taste in mouth/altered sense of taste
- food cravings/going off foods, smells, e.g. coffee
- tiredness
- needing to urinate more frequently
- positive urine test/pregnancy test

(putting on weight/bump = 0)

All other valid responses will be given credit

(3 × [1])

[3]

(b) Describe conception. (AO1)

Answers may address any of the following points:

- sperm from enlarged penis travels from vagina through cervix, uterus and into fallopian tube
- egg (ova) is released from the ovary and travels along fallopian tube
- **sperm and egg meet (fuse) in fallopian tube (must be included for full marks)**
- fertilised egg then travels to uterus where it embeds in the lining of the uterus (womb) for the foetus to grow

All other valid responses will be given credit.

[1] Basic statement

[2] Accurate description

[3] Accurate, full description using specialist terminology

(1 × [3])

[3]

6

3 (a) Discuss the following methods of family planning. (AO1, AO2)

Male condom:

Answers may address any of the following points:

- made from very thin latex (rubber)
- designed to stop a man's sperm from coming into contact with the female/put on to penis
- when used correctly male condoms protect against STIs/STDs
- if used correctly, they are 98% effective
- effectiveness can be affected by moisturiser and creams
- widely available
- impairs enjoyment
- male's responsibility
- free from family planning/sexual health
- expensive
- condom may slip off during intercourse
- BSI kitemark/CE mark
- can rip or tear
- short term method

All other valid responses will be given credit.

(2 × [1])

[2]

Contraceptive implant:

Answers may address any of the following points:

- small flexible tube, 40 mm long, inserted under the skin of upper arm
- must be inserted by a Health professional/doctor
- lasts for 3 years/don't need to worry about contraceptives for 3 years
- stops the release of an egg from the ovary
- slowly releases the hormone progesterone into the bloodstream and works by stopping ovulation/thickens cervical mucus – more difficult to go through
- more than 99% effective
- useful for women who find it difficult to take oestrogen based contraceptives/difficult to take the pill
- if there are side effects the implant can be removed
- may affect periods – could be lighter, irregular, heavier or longer/may disappear
- does not protect against STIs

All other valid answers will be credited.

(2 × [1])

[2]

(b) Discuss the following factors a couple may consider before making the decision to have a baby. (AO1, AO2)

Money:

Answers may address any of the following points:

- cost of a baby, equipment
- financial implications of woman being on maternity leave and earning less money
- cost of childcare/babysitter
- couple will need to budget
- need to work extra hours/overtime

Relationship:

Answers may address any of the following points:

- strength of the relationship/put a strain on relationship
- not to improve relationship
- their level of maturity

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- ability to cope with the pressures of pregnancy and a new baby
- have support for their relationship, e.g. from family who could help babysit to allow them to spend time together as a couple
- both ready to commit
- less time to spend together

Career:

Answers may address any of the following points:

- pregnancy may affect mother's promotion opportunities
- consideration of part-time work or job
- father may need to do overtime if he needs more money and be away from home more
- mother may need to think about leaving her job if it does not suit motherhood, e.g. long hours, long journey to work
- stable job entitled to maternity leave

All other valid responses will be given credit

[1] Basic statement

[2] Accurate explanation

(3 × [2])

[6]

10

4 (a) Identify the following reflexes found in a newborn baby. (AO1)

(i) grasp/grasping *Grabbing/grab [0]*

(ii) Moro/startle/falling

(iii) stepping/walking

(3 × [1])

[3]

(b) Write down three ways to help prevent SIDS. (AO1)

- give them a dummy
- keep cot/ Moses basket in your room for 6 months
- do not smoke during pregnancy
- breastfeed baby
- do not let baby sleep in the bed/on sofa/on chair with parents
- lie baby on back
- place baby's feet to foot of cot
- do not allow anyone to smoke near baby
- keep cot away from radiator
- do not allow room to overheat/room at 16–20° C
- use thin blankets
- do not use a duvet/do not use cot bumpers/cuddly toys
- do not use a pillow
- blankets tucked in/keep baby's head uncovered/do not allow baby to overheat
- use a firm, flat, waterproof mattress
- nightwear not too big
- new mattress not second hand
- check the room temperature [0]

All other valid responses will be given credit

(3 × [1])

[3]

(c) The following quality marks may be found on clothing and equipment for a baby. Explain their benefits to the consumer. (AO1, AO2)

(i) Answers may address any of the following points:

- means the consumer is assured the covers and fillings of goods meet the fire resistance regulations **reassures consumer**

- slow to burn/will not easily catch fire from cigarettes or matches
 - does not mean it is fireproof so consumer will know they still need to keep child away from flames and fire
- All other valid responses will be given credit

[1] Basic statement

[2] Accurate explanation

(1 × [2])

[2]

(ii) Answers may address two of the following points:

- shows toy meets safety standards (British)/consumer will know the child can play with the toy without being hurt, reassuring
- adheres to strict advertising/consumer knows advert will be honest, e.g. if says for one year old it will not have removable pieces
- counterfeiting ethics, will be checked to make sure it is not a fake/ consumer will know toy will be of expected quality, won't be a cheap fake that is unsafe
- item is safe
- British Safety Mark

All other valid responses will be given credit

Resistent [0] Items [0]

[1] Basic statement

[2] Accurate explanation

(1 × [2])

[2]

(d) Describe how to make a formula feed (AO1)

Answers may address any of the following points:

- collect equipment, clean work area, wash hands, sterilise bottles and teats using, e.g. steam steriliser
- use boiled, cooled water – use fresh tap water, do not re-boil water already in kettle, leave to cool for less than 30 minutes
- read and follow instructions on formula container/use level spoonfuls of powder – correct proportions are important/always put the water in first
- make up bottles as required, use at once, do not store prepared bottles in fridge – danger of food poisoning, dangerous to baby
- shake made up bottle, test temperature on wrist to ensure it does not burn baby's mouth

All other valid responses will be given credit

[1]–[2] Basic points

[3]–[4] Accurate description in some order which includes reference to sterilisation and following instructions.

(1 × [4])

[4]

14

5 Maeve is pregnant with her first baby.

(a) Explain one way Maeve's partner can help during her pregnancy. (AO1, AO2)

Answers may address any of the following points:

- go to scans
- attend antenatal classes to become involved with pregnancy and learn what is happening, become better informed to empathise and know how to support Maeve
- take more responsibility around home, do more housework, e.g. heavy jobs such as vacuuming which may be difficult for Maeve in later stages, ironing which may cause backache

- cook for mother if she is feeling tired or if smell of cooking is causing nausea/ensure she is eating a balanced, healthy diet
- talk to Maeve, share her concerns, share the excitement of having a new baby/compliment her, make her feel good/tell her she looks pretty as she may lack confidence because she is feeling overweight, give her a massage or organise a special dinner to make her feel special
- get involved in preparation for the baby, e.g. decorating the nursery, helping to choose pram, will bring them closer together through shared experiences

All other valid responses will be given credit

[1] Basic statement

[2] Accurate explanation

(1 × [2])

[2]

- (b)** Maeve wants to ensure a healthy pregnancy. Suggest two pieces of advice she should follow regarding: (AO1)

Oedema:

Answers may address any of the following points:

- avoid standing for too long
- put feet up on stool or sofa when sitting
- rest for one hour each day with feet higher than heart/rest
- wear comfortable shoes/flat shoes
- avoid tight straps or anything that may pinch if feet swell
- wear support tights to help circulation
- regular exercise – swim or walk

All other valid responses will be given credit

(2 × [1])

[2]

Heartburn:

Answers may address some of the following points:

- raise one end of the bed up
- do not eat meals late at night/within 3 hours of sleep
- sit up straight when eating/when in bed head raised
- drink milk to line stomach
- avoid spicy foods/acidic/trigger foods/fizzy drinks
- eat smaller frequent meals
- eat slowly
- do not smoke/take alcohol
- fatty/greasy foods

All other valid responses will be given credit

(2 × [1])

[2]

Dental care:

Answers may address some of the following points:

- regular visits to the dentist
- report bleeding gums to the dentist
- brush teeth daily and regularly
- eat foods rich in calcium
- avoid sugary foods
- read food labels
- avoid foods with added sugar
- avoid X-rays
- avoid whitening products
- floss
- use fluoride toothpaste

All other valid responses will be given credit

(2 × [1])

[2]

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- (c) Describe how the following health professionals may be involved in Maeve's pregnancy and childbirth. (AO1, AO2)

Midwife

Answers may address some of the following points:

- health professional who will be at the antenatal clinic
- will carry out tests and checks, e.g. blood, urine
- will give advice re diet, any concerns, what to expect (scan = 0)
- midwife may be present during labour and birth to guide and support mother
- will advise on birth plan, pain relief, contractions and birth (unless complications)
- 10 days after birth

All other valid responses will be given credit.

[1] Basic statement

[2] Accurate explanation

(1 × [2])

[2]

Sonographer

Answers may address some of the following points:

- health professional who carries out ultrasound scan scan and why (at 12 and 20 weeks) to show development of baby, length of limbs, multiple births, position of placenta
- identifies abnormalities and makes referrals
- reassures mother that pregnancy/baby's development is progressing
- to scan during the amniocentesis/CVS testing

All other valid answers will be credited

[1] Basic statement

[2] Accurate explanation

(1 × [2])

[2]

- (d) Explain two ways a pregnant mother can help ensure healthy brain development in the womb. (AO1, AO2)

Answers may address two of the following points:

- do not gain too much weight (e.g. low fat diet, not eating for two, following health guidelines, taking advice from midwife re healthy diet) as this can contribute to premature delivery, early delivery is a high risk factor for mental impairment
- do not eat undercooked meat or eggs, causes toxoplasmosis which can cause mental retardation
- avoid shark and swordfish as they are high in mercury which can affect brain development
- drugs/do not drink alcohol, can lead to FAS (foetal alcohol syndrome) which affects brain development/pass into placenta
- include iodine – needed to make thyroid hormone which is essential for brain development
- include iron – needed to make red blood cells that transport oxygen to the baby's brain
- include folic acid as deficiency leads to baby's neural tube being unable to close properly, leads to severe malformations of the brain and spinal cord.
- avoid taking aspirin as it can stop blood from clotting and prevent bleeding in a baby's brain
- include vitamin B (thiamine) in fortified breakfast cereals and eggs and vitamin B6 to help develop brain
- take time to relax during pregnancy/sing and talk to the unborn baby

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- throughout pregnancy – used to voice
- touch the bump in/response to the baby's movements
 - include oily fish, source of omega-3 fatty acids (found in salmon, mackerel, fresh tuna), no more than two portions of oily fish per week
 - smoking crossing placenta/depriving baby of oxygen
 - get vaccinated against rubella
 - B1 deficiency causes brain damage
- sources: peas, dried fruit, eggs, wholemeal bread, liver, fortified cereal
- All other valid responses will be given credit

[1] Basic statement

[2] Accurate explanation

(2 × [2])

[4]

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16

6 Discuss the advantages of the following methods of pain relief available during labour. (AO1, AO2)

Answers may address any of the following points:

Gas and Air (entonox)

Advantages

- no doctor required to administer
- mother can have a choice between mask or mouthpiece
- safe for the baby and mother, no after effects for baby
- can be used in all stages of labour
- reduces the severity of labour pains without blocking it out altogether, mother still experiences the sensations of labour
- easy to use, mother is in control of how much or how little they use
- readily available in labour wards, does not need to be pre-booked
- fast acting
- baby will not need extra monitoring while mother is using it
- the effects wear off quickly once the mother stops inhaling
- it can be used in a birthing pool
- no after effects for mum or baby
- portable – allows mother to move around
- calms her down
- can be used for a home birth

TENS

Advantages

- uses transcutaneous electrical nerve stimulation (mild electric current) to reduce pain signals going to the spinal cord and brain
- may reduce pain and relax muscles, may also stimulate the production of endorphins, which are the body's natural painkillers
- most effective during the early stages of labour when mothers experience low back pain
- mother can move around when using machine, attached to back with sticky pads
- does not affect the baby or have after effects on mother, can be used as often as needed throughout labour
- can be used for a home birth
- mother can control intensity

All other valid answers will be credited.

[1] Basic statement

[2] Accurate explanation with one advantage included

[3] Accurate explanation with at least two advantages included

(2 × [3])

[6]

6

- 7 Lauren and Michael are considering buying this baby travel system for their newborn baby. (AO2, AO3)

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Discuss the factors they should consider.

- multi-functional, has three functions, newborn baby can sleep in baby car seat on pram frame and parent can unclip and take into house without disturbing baby/small baby can sleep in carrycot during day and night, comfortable for baby, don't need to waken baby to put them into cot or moses basket
- can be used from birth to 3 years, no need to buy additional buggy or car seat, saves expense, saves storage space required
- swivel wheels are easy to manoeuvre/ lightweight frame – make pram base easy to push, less strain on mother's back, comfortable ride for baby
- waterproof cover allows pram to be used in all weathers, baby is kept warm
- dry/wipeable fabric can be kept clean and hygienic as babies are messy when feeding and may be sick
- safety harnesses on car seat and buggy/safety bar on buggy – keep baby in pram, won't fall out when taking pram down steps, keep baby safe and feeling secure, mother will be reassured that baby is safe
- adjustable handle allows parents to adjust to a comfortable height, will not put strain on mother's back
- shopping basket can be used instead of hanging bags on handle and risking toppling pram
- sturdy brakes will ensure it is safe for the baby, mother will know she can leave pram safely and it will not run away
- lightweight and easy to collapse and fold, parent will be able to fold it and lift it into the car boot or upstairs, onto escalators etc, may be able to collapse it with one hand, good for mother who is holding the baby
- cost, expensive when baby will need other equipment and expenses, e.g. cot, clothes, childminding, could buy three pieces of equipment for lower cost. Could also offer value for money, only need to buy once
- weight, may be heavy, not easy to push, could be difficult to fold and put in car boot, or use on bus or train
- may not have forward facing facility, baby will be facing away from parent, not as easy to check baby, may make mother feel anxious
- may need to buy a bigger car, travel system takes up a lot of space and may be bulky to transport even when folded
- size, may be bulky and difficult to store in the house even though system collapses

- other people's experiences/reviews online
- safety, e.g. sharp edges/loose screws/areas that limbs get stuck
- Kitemark/CE marks

All other valid responses will be given credit

[0] is awarded for a response not worthy of credit

Level 1 ([1]–[3])

Overall impression: basic

- shows basic knowledge and understanding of the factors to consider
- limited range of points
- may be little or no discussion of points
- quality of written communication is basic

Level 2 ([4]–[6])

Overall impression: competent

- shows good knowledge and understanding of the factors to consider
- two to three valid points
- some valid discussion of points evident
- quality of written communication is competent

Level 3 ([7]–[9])

Overall impression: highly competent

- shows excellent knowledge and understanding of the factors to consider
- at least four valid points
- highly competent discussion of points
- quality of written communication is highly competent

[9]

9

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8 Evaluate the suitability of this lunch for a pregnant woman. (AO3)

<p>Egg mayonnaise in a wholemeal roll</p> <p>Packet of crisps</p> <p>Glass of semi-skimmed milk</p>

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Egg mayonnaise

Advantages

- egg contains protein for growth of mother's body tissue and developing baby/protein for repair of maternal tissue
- egg contains vitamin B, folate, iron

Disadvantages

- egg contains some cholesterol, contributes to coronary heart disease
- undercooked egg can cause salmonella, miscarriage, stillbirth
- mayonnaise contains fat, extra weight may be difficult to lose after birth, obesity can cause difficulties during birth
- homemade mayonnaise is unpasteurised can cause salmonella (food poisoning bacteria), can lead to maternal vomiting, diarrhoea and dehydration. May cause birth defects.

Wholemeal roll

Advantages

- carbohydrates for energy/for carrying extra weight of baby
- high in dietary fibre/helps prevent constipation which can be a common problem during pregnancy
- folic acid, reduces risks of NTDs, e.g. spina bifida
- wholemeal is a healthy carbohydrate choice/keep pregnant woman feeling fuller longer and prevent unhealthy snacking/high satiety value
- releases energy slowly into the body/low GI food
- iron prevents anaemia – increases risk of low birth weight
- fortified with vitamin D for absorption of calcium – strong bones and teeth.

Disadvantage

- salt content can raise blood pressure and lead to heart disease and stroke

Packet crisps

Advantages

- carbohydrate for energy/for carrying extra weight of baby
- contains dietary fibre/helps prevent constipation which can be a common problem during pregnancy

Disadvantages

- high in fat/stored as body fat, can lead to CHD/difficult to lose extra weight after birth, long term health risk
- high salt content can raise blood pressure and lead to heart disease and stroke

Glass of semi-skimmed milk

Advantages

- protein for growth of developing baby and mother's expanding body/protein for repair
- calcium for mother and baby's teeth and bones

- vitamin D (fat soluble vitamin) to regulate amount of calcium, helps development of bones
- less fat than full cream milk, can help prevent weight gain, difficult to lose weight after birth, less risk of obesity
- helps prevent heartburn and indigestion which are common in pregnancy
- hydrates mother

Disadvantages

- contains saturated fat, contributes to weight gain and can raise blood pressure

General points:

- reference to current dietary recommendations and how this meal meets them or not
- reference to Eatwell Guide and explanation related to this meal

All other valid responses will be given credit

[0] is awarded for a response not worthy of credit

Level 1 ([1]–[3])

Overall impression: basic

- shows basic knowledge and understanding of the suitability of the meal
- limited range of points, may have little or no evaluation
- quality of written communication is basic

Level 2 ([4]–[6])

Overall impression: competent

- shows good knowledge and understanding of the suitability of the meal
- two to three valid, explained points
- competent evaluation of some points evident
- quality of written communication is competent

Level 3 ([7]–[9])

Overall impression: highly competent

- shows excellent knowledge and understanding of the suitability of the lunch
- highly competent evaluation of all parts of the lunch evident
- quality of written communication is highly competent

(Maximum of 4 marks if discussion does not include disadvantages)

[9]

9

Total

75

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