



Rewarding Learning

**General Certificate of Secondary Education
2019**

**Home Economics:
Child Development**

Unit 1

Parenthood, Pregnancy and
the Newborn Baby

[GCD11]

MONDAY 3 JUNE, AFTERNOON

**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. Tick only [✓] one box for each statement. (AO1)

(a) One sign of pregnancy is:

A nausea

(1 × [1])

[1]

(b) The testes are protected by the:

B scrotum

(1 × [1])

[1]

(c) The fine hair covering the newborn baby is called:

A lanugo

(1 × [1])

[1]

(d) The average pregnancy lasts for:

D 40 weeks

(1 × [1])

[1]

cannot choose 2

4

2 (a) Write down one function of the: (AO1)

(i) uterus:

- where baby develops during pregnancy/grows/hold baby
- **expands** during pregnancy
- lining thickens and is shed during menstruation
- implantation happens here/fertilized egg develops
- becomes part of the birth canal/contracts during labour
- protects baby

All other valid answers will be given credit

(1 × [1])

[1]

(ii) fallopian tube:

- passes sperm to oviduct
- where egg and sperm meet/fertilisation takes place here
- transports egg/ova/carries egg
- connects uterus and ovary

sperm goes through = [0]

- guides egg to meet sperm

All other valid answers will be given credit

(1 × [1])

[1]

(iii) testes:

- produce sperm/creates/makes/carries/produces semen
- produce testosterone
- sperm and testosterone made here

sperm store/hold sperm

protect sperm = [0]

All other valid answers will be given credit

(1 × [1])

[1]

(b) Explain the role of: (AO1)

(i) The amniotic sac and fluid

- acts as **cushion** for baby in uterus/holds the baby/keeps baby safe/**protects** baby from bumps and injury/hurt in uterus/bumps
- facilitates the exchange of nutrients and water between mother and baby
- provides fluids for the baby to breathe and swallow/drinks from 11 weeks
- helps the baby's musculoskeletal system to develop
- maintains a constant temperature for the baby/warm
- fluid released = starting of labour

All other valid answers will be given credit

(1 × [2])

[2]

(ii) The umbilical cord

- (carries oxygen and nutrients) max [1] mark from the placenta to the foetus
- carries de-oxygenated blood away from the foetus
- connects the foetus to the mother's placenta
- removes waste
- attached to baby

All other valid answers will be given credit

(1 × [2])

[2]

(c) Describe what happens during menstruation. (AO1)

- 28-day cycle controlled by hormones (not monthly)
- womb prepares for implantation of a developing egg
- lining of uterus thickens and sheds/bleeding/period happens (menstrual flow)
- egg released (ovulation) around day 14
- the lining of the uterus is built up to receive the fertilised egg

All other valid answers will be given credit

[1] Basic statement

[2] Accurate with some discussion

[3] Accurate with understanding of menstrual cycle

(1 × [3])

[3]

10

3 (a) Write down three reflexes found in a newborn baby. (AO1)

- rooting
- startle/Moro
- walking/stepping/placing
- sucking/swallowing/suck
- grasp/Palmar
- falling

Description valid

Grip and grab = [0]

All other valid answers will be given credit

(3 × [1])

[3]

(b) Explain the **nutritional value** of each of these foods for a pregnant woman.
(AO1)

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(i) Whole milk

- calcium for bones and teeth of both mother and baby/prevents osteoporosis
- needed for growing body, to support growing baby
- protein for growth and repair
- fat for energy, needed for carrying extra weight of baby
- good source of vitamin D to absorb calcium
- increased fat content may lead to excess weight/difficult to lose after birth
- iodine for synthesis of thyroid for brain and eye development

All other valid answers will be given credit

(1 × [2])

[2]

(ii) Wholewheat pasta

- carbohydrate for energy, needed for carrying extra weight of baby
- dietary fibre to help get rid of waste and prevent constipation, common in pregnancy/fuller for longer/less likely to snack

All other valid answers will be given credit

(1 × [2])

[2]

(iii) Oranges

- vitamin C to help heal wounds, required for the development of collagen, helps develop resistance against infections
- no fat or cholesterol
- some carbohydrate for energy
- helps the absorption of iron, needed to prevent anaemia
- natural antioxidant to protect body cells
- natural sugar, quick source of energy
- prevents scurvy
- develops bone strength
- source of folate

All other valid answers will be given credit

(1 × [2])

[2]

(c) Explain why a pregnant woman should avoid the following foods:
(AO1, AO2)

(i) Soft cheeses:

- contain **listeria/listeriosis** bacteria that can cause listeriosis/food poisoning
- can lead to **infection** in a pregnant woman and lead to miscarriage, stillbirth or severe illness in a newborn baby

Miscarriage/stillbirth = [1] mark

All other valid answers will be given credit

(1 × [2])

[2]

(ii) Raw or undercooked meat:

- risk of toxoplasmosis which can cause infection and can damage baby/salmonella/food poisoning
- risk of food poisoning leading to dehydration and potentially stillbirth or miscarriage

All other valid answers will be given credit

(1 × [2])

[2]

(iii) Sugary snacks:

- high in sugar, lead to dental cavities/gum disease
- sugar may cause obesity if not used for energy
- may develop sweet tooth, leading to high sugar intake
- risk of gestational/pregnancy diabetes
- complications at birth linked to obesity
- sugar can increase heart rate of baby
- sugar can increase blood pressure

All other valid answers will be given credit

(1 × [2])

[2]

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4 (a) Diseases can have an effect on a baby in the womb.

Explain how rubella can affect the unborn baby. (AO1, AO2)

- if pregnant woman catches German measles (rubella) in first weeks of pregnancy high chance of rubella damaging unborn baby
- rubella virus affects developing organs, baby may be born with congenital rubella syndrome including blindness, eye problems, deafness and heart abnormalities, brain damage/learning disabilities/ brain deficiency
(if 3 given [2] marks awarded)
- rubella infection in the first three months of pregnancy increases risk of miscarriage or stillbirth/baby dies

just miscarriage = [0]

All other valid answers will be given credit

(1 × [2])

[2]

(b) Explain the role of the obstetrician during pregnancy and birth. (AO1, AO2)

- involved with multiple births
- if there are complications during pregnancy obstetrician will monitor mother's pregnancy/breech birth
- will be involved with delivery of baby if labour has complications or baby becomes distressed.
- helps with assisted delivery (forceps or ventouse)
- carries out caesarean birth

advice on coping = [0]

All other valid answers will be given credit

[1] Basic statement

[2] Accurate with some explanation

[3] Accurate with detailed understanding of role

(1 × [3])

[3]

(c) Explain what happens during the following stages of labour: (AO1, AO2)

Stage 2

- begins when cervix fully dilated to 10 cm and ends when baby is born
- vagina, cervix and uterus form birth canal
- called the pushing stage, mother has urge to push with increasingly strong and longer contractions
- crowning happens when baby's head appears, shoulders are eased out and **baby is born**
- episiotomy to prevent tearing

All other valid answers will be given credit

- [1] Basic statement
 [2] Accurate with some discussion
 [3] Accurate with detailed understanding of process/**inclusion of birth**
 (1 × [3]) [3]

Stage 3

- placenta/afterbirth delivered and placenta checked to make sure nothing has been left behind
 - umbilical cord clamped and cut
 - stitches given if mother has had episiotomy during birth
 - injection/syntocin given to cause uterus to contract and prevent heavy blood loss
 - baby becomes a separate person, breathing by themselves
 - **baby checked**/APGAR/mouth/mucus cleaned
 - given to mother to hold/opportunity for bonding with baby
- All other valid answers will be given credit

- [1] Basic statement
 [2] Accurate with some discussion
 [3] Accurate with clear discussion relating to Stage 3 labour using specialist terminology
 (1 × [3]) [3]

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5 (a) Explain the role of the father/birthing partner during labour and birth.
 (AO1, AO2)

- cuts the cord
- provides emotional support for the mother, praises her, holds her hand to reassure her she is doing well
- monitors regularity of contractions and takes mother to hospital
- has a copy of the birth plan, is familiar with it and helps the mother communicate what she wants
- keeps the mother calm and relaxed to preserve her strength, talks to her, reads to her, rubs her back, massages her
- ensures the mother's physical needs are met, gets drinks, snacks for mother
- shares breathing exercises with mother to encourage her and give her a distraction from the pain

3 jobs of the father = [2] marks
 All other valid answers will be credited
 (1 × [2]) [2]

(b) List three postnatal checks for a mother. (AO1)

- mother asked re. concerns about baby, e.g. re. feeding, sleeping
- mother is asked how she is coping/post-natal depression check carried out/depression/mental state/bonded with baby
- mother's womb is checked/check woman's womb is contracting back to normal
- mother's BP may be checked
- advice may be given re. contraception
- asked about periods returning
- stitches checked, episiotomy or caesarean stitches check
- weight check if overweight
- urine check – sugar levels/diabetes
- vaginal discharge checked re infection
- smear and breast check = [0]
- blood test = [0]
- check if mum is eating properly

All other valid answers will be given credit.

(3 × [1])

[3]

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(c) Hannah is considering complementary methods of pain relief for her labour. Discuss this choice. (AO1, AO3)

- she may not want anything to transfer to the baby, wants a natural birth, e.g. pethidine crosses placenta/epidural may mean longer labour as mother may not know or be able to push baby out, may endanger baby/mother may want to experience labour fully/mother may want to be in control/having own therapist there may help relax mother
max [2] marks
- non-invasive methods, do not transfer to baby, mother will be sure baby is not affected
- acupuncture – may relax mother, help release endorphins to cope with pain, does not affect baby/mother can try acupuncture before labour to ensure she knows what to expect
- aromatherapy – may relax mother, help her breathing to cope with contractions/expensive
- reflexology – specific area on mother's feet massaged by reflexologist to reduce pain, may provide distraction from contractions, reduce stress of labour/cost involved/will need therapist for all of labour
- self hypnosis can put mother in relaxed state, easier to cope with stress of labour/hypnotherapy/breathing exercises
- hydrotherapy/waterbirth – encourages the release of endorphins, does not affect the baby, can relax mother/may not relieve all pain/not all maternity hospitals offer it
- massage – relieves stress – produces endorphins

All other valid answers will be given credit

Level 1 ([1]–[2])

Overall impression: Basic

- shows limited knowledge and understanding
- identifies and comments on a few obvious points relevant to question
- a limited assessment applied in simple terms to the question

Level 2 ([3]–[4])

Overall impression: Competent

- shows good knowledge and understanding
- identifies and comments on some key points relevant to the question
- a competent understanding of complementary options of pain relief for labour

Level 3 ([5]–[6])

Overall impression: Highly competent

- shows excellent knowledge and understanding
- identifies and comments on a wide range of key points relevant to complementary options of pain relief
- a highly competent understanding of complementary options of pain relief for labour

(1 × [6])

[6]

11

6 Hannah has chosen to breastfeed her newborn baby.

Justify her choice. Why is it a good idea? (AO3)

- if baby is breastfed immediately after birth it helps the uterus to contract and the placenta to be expelled
- promotes bonding between mother and baby/skin-to-skin contact/good for emotional well-being of baby and mother, helps prevention of post-natal depression
- antibodies passed from mother to baby to prevent illness in baby
- less risk of infections, fewer hospital visits/less risk of diarrhoea and vomiting, type 2 diabetes, obesity, cardiovascular disease in adulthood
- lowers risk of SIDS
- breast milk is available immediately, no need for preparations, less work for parents/at correct temperature, does not need to be heated, baby gets milk right away, easier to settle after feeding
- breast milk contains colostrum, rich in nutrients, adapts to baby's changing needs
- mother has increased protection from breast cancer, ovarian cancer, osteoporosis, cardiovascular disease, obesity
- mother has sense of satisfaction re. feeding baby herself, naturally/may help prevent post-natal depression
- breastmilk is free, more money for nappies, equipment needed for growing baby
- milk can be expressed so that other people can feed the baby
- delays return of periods

All other valid answers will be given credit

Level 1 ([1]–[2])

Overall impression: Basic

- shows limited knowledge and understanding
- identifies and comments on a few obvious points relevant to breastfeeding newborn baby
- a limited assessment applied in simple terms to the question

Level 2 ([3]–[4]) – max if in bullet points

Overall impression: Competent

- shows good knowledge and understanding
- identifies and comments on some key points relevant to breastfeeding the newborn baby
- a competent justification of breastfeeding

Max [4] marks if just listed and no explanation

Level 3 ([5]–[6])

Overall impression: Highly competent

- shows excellent knowledge and understanding
- identifies and comments on a wide range of key points relevant to breastfeeding
- a highly competent justification of breastfeeding

(1 × [6])

[6]

6

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7 Discuss the importance of a first-time pregnant woman attending antenatal appointments, including test and checks that may be carried out. (AO2, AO3)

- **meet other mothers**, get advice, share concerns, feel reassured not alone, share experiences, maybe start friendships
- **advice from midwives**, how to deal with problems during pregnancy and provides reassurance. Lifestyle advice on diet, smoking, alcohol, drugs
- **meet medical team**/health professionals involved in birth – midwives, obstetrician – will inform mother
- discuss and agree **birth plan** with midwives, mother will feel in control knowing her wishes are noted, will ensure hospital aware of any concerns and preferences
- information available of **types of birth**, e.g. induction, forceps
- information on **pain relief** available – mother will feel prepared and know her options
- **partner can attend** to show support and ensure they are informed about pregnancy and labour
- mother will **become familiar with hospital** and labour wards, will help prepare her for labour, she may have tour of labour wards to see birth room options, e.g. family room
- tests and checks
- **tests/checks** (to reassure and inform mother, to help her make changes to diet or lifestyle to address problems)
- **blood tests** – check blood group in case transfusion needed during birth, check for anaemia, rhesus, hep B, HIV, immunity to rubella
- **urine tests** – check for sugar (glucose) sign of gestational diabetes. Check for protein (albumin) to indicate kidney or bladder infection, sign of pre-eclampsia
- **blood pressure check** – if high may be sign of pre-eclampsia, toxemia of pregnancy, mum will be advised to rest, dangerous for mother and baby
- ultrasound/**scan** carried out on baby to check EDD, baby's development, number of babies, placenta function and position etc.
- **weight check**: if the weight is increasing gradually this is a sign that the foetus is growing normally, if no weight gain questions raised about the development of foetus. Excess weight gain – consider diet, fluid build-up around ankles/wrists – sign of pre-eclampsia
- **specialist checks** – amniocentesis will be organised if risk assessed for spina bifida, e.g. older mother

All other valid answers will be given credit

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

Level 1 ([1]–[3])

Overall impression: Basic

- shows limited knowledge and understanding of antenatal appointments
- limited range of points, little or no explanation
- quality of written communication is basic

Level 2 ([4]–[6])

Overall impression: Competent

- shows good knowledge and understanding related to the advantages of antenatal appointments and the tests that may be carried out
- identifies and comments on some key points relevant to the question
- competent range of explained points with reference to advantages and tests that may be carried out
- quality of written communication is competent

Max [4] marks if only discuss benefits of clinic

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Level 3 ([7]–[9])

Overall impression: Highly competent

- shows excellent knowledge and understanding related to the advantages of antenatal appointments and the tests that may be carried out
- identifies and comments on the key points relevant to the question
- highly competent range of explained points including both the advantages and tests/checks that may be carried out at antenatal appointments
- quality of written communication is highly competent

(1 × [9])

[9]

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8 Discuss how parents can meet the needs of a newborn baby. (AO2, AO3)

- baby needs a **warm, safe and clean environment** – ensure baby's room is warm but not too hot (prevents SIDS)/sterilise all feeding equipment/follow strict hygiene when preparing bottles and handling baby/change baby nappies at once/never leaving baby unattended/ensure bathing safety safety max 2 points
- baby needs **sleep**, plenty of rest/establish a bedtime routine after first 8 weeks to help baby differentiate between day and night, preparation for longer periods of waking as baby grows/during sleep baby's brain cells lay down synapses (connections) to enable learning, movement and thought/encourages appetite/provide baby with cot and pram to sleep in and make baby comfortable to ensure settled sleep
- baby needs **food** – parents choose between breast and bottle feeding – make informed choice – listen to advice from midwives, other mothers, breastfeeding is natural choice with range of benefits for baby and mother/ during pregnancy mother can ensure she has a well-balanced diet to provide baby with correct nutrients for maximum growth, stay away from raw meat, undercooked foods, etc./NB: ref. to weaning is irrelevant for newborn = [0]
- baby needs **fresh air** – take baby for daily walks to help baby sleep, breathe clean air to reduce risk of colds, etc./do not allow smoking in the house to prevent SIDS and smoke inhalation by baby
- baby needs **love, comfort, attention** – cuddle baby to soothe them and help bonding/wrap baby in blanket to give sense of safety and keep baby warm/talk to baby to promote bonding, get baby familiar with parents' voices to comfort them/comfort baby when they cry, e.g. use pacifier, sing to baby, rock baby, hold baby close to you/do not shout or argue within hearing of baby as they can sense tension and will feel unsettled and cry, not sleep/parents will need to give baby attention 24 hours a day, may need to rearrange their social life, go out less, make sacrifices
- baby needs **equipment**, e.g. pram, cot, clothes, daily needs (nappies, formula feed), parents need to earn money to pay for physical needs of baby, father may need to work longer hours if mother earning less money on maternity leave/dad may have been on paternity leave max 2 points on equipment
- stable relationship – not arguing in front of the baby stress transfers to baby
- bonding with parents/breastfeeding/cuddling
- take advice from other parents/use their experience
- financial implications/job security

All other valid answers will be given credit

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

Level 1 ([1]–[3])

Overall impression: Basic

- shows limited knowledge and understanding of baby's needs

- limited range of points, little or no explanation
- quality of written communication is basic

Level 2 ([4]–[6])

Overall impression: Competent

- shows good knowledge and understanding related to the needs of a baby and how parents can meet these needs
- identifies and comments on at least three key points relevant to the question
- competent range of at **least three explained points** with reference to how parents can meet these needs
- quality of written communication is competent

Level 3 ([7]–[9])

Overall impression: Highly competent

- shows excellent knowledge and understanding related to the needs of a baby and how parents can meet these needs
- identifies and comments on at **least four key points relevant** to the question
- highly competent range of at least four explained points with detailed reference to how parents can meet these needs
- quality of written communication is highly competent

(1 × [9])

[9]

Total

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9

75