



Rewarding Learning

**General Certificate of Secondary Education
2016**

Home Economics (Child Development)

Unit 1:

Parenthood, Pregnancy and Childbirth

[GHC11]

WEDNESDAY 1 JUNE, AFTERNOON

**MARK
SCHEME**

General Marking Instructions

Introduction

Mark schemes are published to assist teachers and students in their preparation for examinations. Through the mark schemes teachers and students will be able to see what examiners are looking for in response to questions and exactly where the marks have been awarded. The publishing of the mark schemes may help to show that examiners are not concerned about finding out what a student does not know but rather with rewarding students for what they do know.

The Purpose of Mark Schemes

Examination papers are set and revised by teams of examiners and revisers appointed by the Council. The teams of examiners and revisers include experienced teachers who are familiar with the level and standards expected of students in schools and colleges.

The job of the examiners is to set the questions and the mark schemes; and the job of the revisers is to review the questions and mark schemes commenting on a large range of issues about which they must be satisfied before the question papers and mark schemes are finalised.

The questions and the mark schemes are developed in association with each other so that the issues of differentiation and positive achievement can be addressed right from the start. Mark schemes, therefore, are regarded as part of an integral process which begins with the setting of questions and ends with the marking of the examination.

The main purpose of the mark scheme is to provide a uniform basis for the marking process so that all the markers are following exactly the same instructions and making the same judgements in so far as this is possible. Before marking begins a standardising meeting is held where all the markers are briefed using the mark scheme and samples of the students' work in the form of scripts. Consideration is also given at this stage to any comments on the operational papers received from teachers and their organisations. During this meeting, and up to and including the end of the marking, there is provision for amendments to be made to the mark scheme. What is published represents this final form of the mark scheme.

It is important to recognise that in some cases there may well be other correct responses which are equally acceptable to those published: the mark scheme can only cover those responses which emerged in the examination. There may also be instances where certain judgements may have to be left to the experience of the examiner, for example, where there is no absolute correct response – all teachers will be familiar with making such judgements.

1 (a) Write down **two** possible symptoms of pregnancy. (AO1)

- nausea/vomiting/being sick/morning sickness/sickness
- tender, sore, sensitive breasts/nipples
- swollen, enlarged breasts
- darker nipples/darkening of skin around the nipples
- missed period
- frequent need to urinate/going to toilet more often
- feeling tired
- metallic taste in mouth
- increased sense of taste or smell
- dizzy, fainting
- constipation
- vaginal discharge
- craving new food
- losing interest in food previously enjoyed, e.g. coffee, tea, fatty foods

putting on weight/bump showing = [0] cravings = [0]

All other valid answers will be credited

(2 × [1])

[2]

(b) Label the diagram of the female reproductive system. (AO1)

(i) fallopian tube

(iii) uterus

(ii) ovary

(iv) cervix

(v) vagina

(5 × [1])

[5]

(c) Write down **one** function of the:

(i) cervix (AO1)

- allows the passage of menstrual fluid/blood/sperm
- promotes fertility
- protects the uterus/developing foetus from infection
- widens during labour/widens to 10 cm for birth
- holds mucus plug/prevents infection
- combines with uterus and vagina to make birth canal/becomes birth canal

keeping baby inside = [0]

All other valid answers will be credited

(1 × [1])

[1]

(ii) uterus (AO1)

- holds the developing foetus/protects the developing baby
- expands during pregnancy
- where fertilised egg embeds and develops
- contracts during labour
- where baby develops/grows
- stores placenta

All other valid answers will be credited

(1 × [1])

[1]

9

2 (a) Write down **two** possible reasons why a child may be fostered.

- parents ill/in hospital/terminally ill
- child neglected/alcohol/drug/financial/parents addicted
- child abused/child at risk
- parents too young/poor parenting skills
- parents died
- awaiting adoption
- parents in prison
- housing difficulties/homeless
- special needs child/respite for parents/can't cope with behaviour
- unwanted/unplanned pregnancy

financial issues = [0]

All other valid answers will be credited

(2 × [1])

[2]

(b) Write down **two** possible causes of infertility.

- polycystic ovary syndrome
- thyroid problems
- damaged/blocked fallopian tubes
- cervical mucus too thick
- fibroids
- endometriosis
- sterilisation
- chemotherapy/cancer treatment
- age
- low sperm count/too few
- testicular cancer
- STIs
- stress
- smoking
- genetics
- failure to ovulate/no egg produced/low egg production
- cervical/ovarian cancer
- PIV (Pelvic Inflammatory disease)
- hysterectomy
- obesity

alcohol = [0] damaged egg = [0]

(2 × [1])

[2]

(c) Explain the benefits of a young couple planning for a family. (AO2)

- if young, easier to conceive
- decide the best time for them to have a baby, when they have been together for longer, are emotionally ready, mature, prepared for responsibility
- save for a baby, babies are expensive and planning will give them time to plan and save, e.g. less money if mother on maternity leave, baby equipment expensive, childminding expensive
- couple will not have an unwanted child, they will not be worried about an unwanted pregnancy, more relaxed, help their relationship
- plan the number of children, plan the gap between children, will be better prepared financially
- will have time as a couple before they start their family, help build their relationship, give them time to save and prepare for a family
- careers can be planned, improved chance of promotion, less stress for couple, can plan financially taking account of maternity pay and cost of baby
- religious/cultural issues can be discussed and decisions made, less chance of arguments when baby is born
- home environment can be prepared for baby, e.g. any safety issues, may need to consider moving house, e.g. from high rise apartment to a house for easier access and garden for baby
- can plan social life, e.g. talk about changes they may need to make when baby comes along, will be less chance of disagreements and resentment when baby arrives
- can plan work/childcare options before baby comes, e.g. working part time, family support available, will mother return to work?
- can prepare for pregnancy – stop smoking, limit alcohol to improve sperm count, eat healthy balanced diet, start taking folic acid, consider genetic counselling

Benefits of having a family = [0]

All other valid answers will be credited

(3 × [2])

[6]

(d) Explain the following:

a miscarriage (AO2)

- spontaneous termination/the loss of a pregnancy/or before 24 weeks/ baby up to 23 weeks of pregnancy, cause may be unknown/baby comes out too early to survive on its own
- main sign is vaginal bleeding which may be followed by cramping and pain in lower abdomen
- most common during first 12 weeks
- may be caused by smoking/alcohol

All other valid answers will be credited

(1 × [2])

[2]

12

3 (a) Describe what happens during Stage 3 of labour. (AO1)

- baby becomes separate person
- contractions continue to push out placenta/afterbirth
- umbilical cord is clamped and/or cut + one other point
- injection of syntometrine given to speed up delivery of placenta and to prevent excessive loss of blood
- mother may be given stitches
- baby is cleaned – skin to skin contact

All other valid answers will be credited

(1 × [2])

[2]

(b) Explain the following methods of pain relief: (AO2)**(i)** an epidural

- a type of local anaesthetic which numbs a mother from the waist down, and usually gives complete pain relief. It **numbs** the nerves that carry the pain impulses to the brain
- an **anaesthetist** is the only person who can give an epidural, it is only available in a hospital. An injection is given into the **spine**, it takes up to 15 minutes to take effect
- the mother may not be able to push the baby out, more likely to need assistance to get baby out, e.g. forceps

Reference has to be made to how it gives pain relief for full marks

All other valid answers will be credited

(1 × [2])

[2]

(ii) TENS

- transcutaneous electrical nerve stimulation used as pain relief during labour
- machine attached to pregnant woman's back with adhesive pads, electric impulses delivered to body
- electrical impulses can block or reduce pain signals going to spinal cord and brain
- electric currents can stimulate the production of endorphins which are the body's natural painkillers
- mother controls it

All other valid answers will be credited

(1 × [2])

[2]

(c) What is:

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(i) A caesarean? (AO1, AO2)

- an operation to remove the baby when a vaginal birth is not possible, e.g. when complications happen during labour or when baby is breech/multiple birth/placenta not functioning/baby or mother are at risk
- mother is given an epidural or spinal block/anaesthetic to numb her from the waist down
- (an anaesthetist and an obstetrician [3]) carry out the operation. A cut is made into the abdomen, just below the bikini line and then the uterus, the baby is lifted out and the mother stitched/sewn
- may be an emergency or elective

All other valid answers will be credited

(1 × [3])

[3]

(ii) induction? (AO2)

Explanation should include any two points

- the artificial starting of labour usual if baby overdue or if risk to mother or baby's health, e.g. high blood pressure/takes place in hospital (not available at home birth)/sweep/rupturing membranes
- labour started by the insertion of a pessary/tablet in vagina and/or hormone drip with (oxytocin [3])

All other valid answers will be credited

(1 × [3])

[3]

12

4 (a) List **three** areas the APGAR test scores when assessing a newborn baby. (AO1)

- heartbeat
- breathing
- activity
- colour
- reflex response
- appearance/colour
- pulse/heartbeat
- grimace/reflexes/cries
- activity/muscle activity
- respiration/breathing

All other valid answers will be credited

(3 × [1])

[3]

(b) Explain **three** ways a pregnant woman can help prevent food poisoning when preparing and cooking her meals. (AO2, AO3)

- good personal hygiene, e.g. wash hands with soap and warm water after going to toilet, before starting to prepare food, after touching bins or pets to remove germs that could cause food poisoning/no coughing over food
- cook food thoroughly/make sure food is cooked through and is steaming hot in the middle, especially pork, chicken, burgers, sausages and kebabs, to kill harmful bacteria such as listeria and salmonella
- use food that has been stored correctly, e.g. in fridge at between 0–5 °C, do not put warm food in fridge as bacteria can continue to grow in warm conditions
- prevent cross contamination by storing raw and cooked food separately, by using separate chopping boards, by using separate knives to ensure bacteria from raw and cooked foods cannot transfer and cause food poisoning
- do not wash raw meat or poultry as harmful bacteria may splash onto other foods which pregnant woman may then eat/do not use fresh food which has had raw food stored above it in the fridge as blood and bacteria could have spilled onto fresh food – bacteria can cause listeriosis and salmonella food poisoning
- washing fruit and vegetables to remove soil which could lead to toxoplasmosis
- do not use food past its 'use by' date
- eggs need to be cooked thoroughly to prevent salmonella food poisoning which are harmful to unborn baby
- food should be covered – protect from flies
- cleaning work surfaces/anti bacterial spray/free from pets
- ensure food is properly defrosted + exp
- only reheat food once after cooking + exp

All other valid answers will be credited

(3 × [2])

[6]

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9

5 A healthy diet during pregnancy is essential.

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Discuss the dietary requirements and current dietary recommendations for pregnant women. (AO2, AO3)

Level 1 ([1]–[3])

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

Level 2 ([4]–[6])

- competent range of explained points (including both aspects of question for [6])
- shows competent knowledge and understanding related to pregnancy
- quality of written communication is competent
- maximum [5] if only discussed one aspect

Level 3 ([7]–[9])

- highly competent range of explained points including both aspects of question
- shows highly competent knowledge and understanding related to pregnancy
- quality of written communication is highly competent

Dietary Requirements

- Balanced diet + explanation
- Protein needed for growth and development of baby and mother's expanding body
- Calcium needed for teeth and bones. Baby's bones developing in womb need calcium. Mother needs calcium as baby uses mother's supply/ maintains woman's bone density
- Carbohydrates needed for energy. Mother needs extra energy to carry extra weight when pregnant. Starchy carbohydrates slowly release energy to make mother feel fuller longer, less likely to eat more and so keep weight controlled. Dietary fibre prevents constipation which is common in pregnancy
- Fats needed for energy, need to eat less fat to ensure does not gain weight which will be difficult to lose after birth. Extra weight can put strain on heart
- Iron needed in pregnancy to prevent anaemia which causes tiredness. Vitamin C needed to help absorption of iron/form healthy placenta
- Eat plenty of fruit and vegetables, gives mother vitamins and minerals to fight disease and improve overall health of mother. Contains dietary fibre to help prevent constipation which is common in pregnancy
- Include foods high in folic acid, e.g. green leafy vegetables, wholemeal cereals and bread, to help prevent spina bifida
- Foods high in NSP/high satiety value/feeling of fullness less likely to snack between meals. Helps to maintain a healthy weight
- Vitamin C: antioxidant – helps immune system
- Vitamin D: helps absorb calcium to form strong bones/skeleton in foetus
- Folic acid
- Vitamin A = necessary for eyesight

Current Dietary Recommendations

- **Eat less sugar**, if not used as energy converted to body fat which puts strain on heart. Too much sugar causes tooth decay
- **Eat less fat**, to ensure does not gain too much weight which will be difficult to lose after birth. Extra weight can put strain on heart and have long term health risks
- **Limit salt intake**, avoid foods high in salt, read food labels, use herbs instead of salt to flavour foods. Diet high in salt can increase blood pressure/hypertension
- **Ensure 5 a Day** fruit and vegetables/follow Eatwell Plate guidelines + provides mother with vitamins and minerals to fight disease and improve overall health. Fruit and vegetables contain **NSP/dietary fibre** to help prevent constipation which is common in pregnancy

Maximum 1 point

- avoiding foods, e.g. eggs/paté
- don't skip breakfast – fibre/less snacking
- drink more water
- caffeine = speeds up heart rate
energy drinks – high in sugar

All other valid answers will be credited

(1 × [9])

[9]

9

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- 6 Discuss the advantages of a pregnant woman attending antenatal appointments including the tests that may be carried out. (AO2, AO3)

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Level 1 ([1]–[3])

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

Level 2 ([4]–[6])

- competent range of explained points (including both advantages and tests for [6])
- shows competent knowledge and understanding related to advantages of antenatal appointments
- quality of written communication is competent
- maximum [5] if only discuss one section

Level 3 ([7]–[9])

- highly competent range of explained points including both advantages and tests
- shows highly competent knowledge and understanding related to advantages of antenatal appointments
- quality of written communication is highly competent

Advantages

- 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/family support, e.g. domestic violence, emotional well-being
- meet medical team/health professionals involved in birth – midwives, obstetrician – will inform mother, medical history
- 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 and on pain relief available – mother will feel prepared and know her options
- father can attend to show support and ensure he is 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 and see birth room options, e.g. family room

Tests/checks

(to reassure and inform mother, to help her make changes to diet or lifestyle to address problems)

- internal examination – check timing of pregnancy/cervical smear
- blood tests – check blood group in case transfusion needed during birth, check for anaemia, rhesus, hep B, HIV + explanation/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

- scan carried out on baby to check EDD, baby's development, number of babies, placenta function and position, heartbeat
- weight check: if increasing gradually sign foetus is growing normally, if no weight gain questions development of foetus. Excess weight gain – consider diet, fluid build-up around ankles/wrists – sign of pre-eclampsia
- if a problem is detected further testing may be carried out, e.g. amniocentesis/Down syndrome
- maximum 1 explained point on parent craft classes

All other valid answers will be credited

(1 × [9])

[9]

Total

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9

60