Rewarding Learning

General Certificate of Secondary Education
2018

Home Economics: Child Development

Unit 1

assessing

Parenthood, Pregnancy and Childbirth

[GHC11]

WEDNESDAY 30 MAY, MORNING

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.

AVAILABLE MARKS

1 **(a)** Label the diagram of the male reproductive system.

(i) testes/testicles

(ii) penis

(iii) urethra

(iv) scrotum

(4 × [1]) [4]

(b) Write down **three** possible causes for infertility.

- Polycystic ovary syndrome
- Thyroid problems
- Damaged reproductive system, e.g. following ectopic pregnancy/ blocked/fallopian tubes
- Cervical mucus too thick
- Fibroids
- Endometriosis
- Sterilisation/hysterectomy/vasectomy
- Chemotherapy/long term use of ibuprofen
- Age/menopause
- Low sperm count/not enough produced
- Testicular cancer
- STIs
- Stress
- Smoking/alcohol/drugs
- Genetics
- Failure to ovulate/low egg production/count
- Cervical/ovarian cancer
- PIV = pelvic inflammatory disease
- Obesity
- Sperm motility/slow sperm
- Blockage in sperm duct
- Mumps
- Childhood injury/sports/teenage injury
- Cancer = [0]

(3 × [1]) [3]

(c) What is an ectopic pregnancy?

- **When a fertilised egg/foetus/baby develops in the fallopian tube or outside the uterus, instead of in the uterus**
- Can be fatal to the baby and can be dangerous for the mother
- The foetus has to be removed surgically
- Medical emergency. First sign is normally severe abdominal pain with some spotting of blood

Basic statement [1]
Competent explanation [2]
All other valid responses will be given credit

(1 × [2]) [2] 9

AVAILABLE MARKS

2 **(a)** Complete the sentences:

(i) Gynaecologist

(ii) Obstetrician

(iii) Placenta

(iv) Oestrogen

(v) Fallopian tube

(vi) Urine

(6 × [1]) [6]

(b) Explain why the following tests/checks are carried out at the antenatal clinic.

Ultrasound scan:

- Confirm the date of pregnancy/calculate estimated date of delivery
- To check if the baby is developing normally, e.g. development of organs size/weight/number of limbs to reassure mother
- To check how many babies there are
- To check the position, size and function of the placenta
- To detect abnormalities, e.g. spina bifida, hydrocephalus, cleft lip or abnormalities of the palate
- To check the sex of the baby if family history/risk of hereditary problems, e.g. haemophilia
- To check the position of the baby – not breech. Mother may require a caesarean section
- Heartbeat – reassures mother

All other valid responses will be given credit

(1 × [2]) [2]

Blood pressure:

- To check the reading – if it is too high it could be a sign of hypertension or high blood pressure which can interfere with the blood supply to the placenta and may mean a risk of pre-eclampsia. This may cause oedema, swelling resulting from fluid retention, severe headaches and convulsions
- To check if it is reading low – the pregnant woman may experience dizziness or light headedness, unsteadiness, fainting, blurred vision, palpitations of the heart, confusion, feeling sick, nausea or general weakness

All other valid responses will be given credit

(1 × [2]) [2]

(c) Explain the benefits of a pregnant woman discussing a birth plan with a midwife at the antenatal clinic.

Answers may address the following points:

- Able to discuss where she would like to give birth, e.g. hospital, home – once decision has been made the pregnant mother can prepare her bag/home better
- Able to discuss delivery options, e.g. water birth, caesarean. Also can discuss what delivery options should be taken if complications occur, e.g. forceps

	AVAILABLE MARKS
• It gives the pregnant woman the chance to ask the midwife questions and find out more about what happens during labour • Give the opportunity to discuss routine care the baby will receive after birth, e.g. vitamin K injections, tests and feeding • Able to discuss special requirements, e.g. use of an interpreter, special dietary requirements, special needs of mother/birthing partner • Able to discuss chosen birthing partner – able to build a relationship/ familiarise themselves with process. Able to find out how involved the partner may wish to be, e.g. cutting the cord, where to stand • Able to discuss delivery positions – this helps the mother feel her wishes are being considered so she is most comfortable • Able to discuss pain relief options – can find out more about side effects of each and make an informed decision about which method she would prefer, e.g. natural/medical • Can prepare and organise home arrangements • Mother can inform midwife of any health issues that may affect unborn baby/inform midwife re previous pregnancies All other valid responses will be given credit Basic explanation [1] Competent explanation [2] Highly competent explanation [3] (1 × [3]) [3]	13

AVAILABLE MARKS

3 **(a)** Describe the menstrual cycle.

Answers may address the following points:

- A 28 day cycle
- Egg is released from ovary
- Uterus lining thickens, ready for egg
- If egg not fertilised lining of uterus comes away as period/bleeding which lasts 3–7 days
- Ovulation about day 14/15
- Four phases of the cycle: menstruation, repair, receptive, premenstrual

All other valid responses will be given credit
Basic description [1]
Competent description [2]
Highly competent and detailed description [3]
(1 × [3]) [3]

(b) Evaluate the following methods of contraception as part of family planning.

1. Male condom
   Advantages
   - No sperm can get into vagina
   - The male can take responsibility for contraception
   - Barrier method of contraception can protect against STIs
   - Widely available
   - 98% effective
   - Not permanent = [0]

   (1 × [1]) [1]

   Disadvantages
   - Expensive – can be costly
   - Putting on a condom may interrupt or impair sexual activity
   - The condom can only be used once
   - If it is not used correctly the condom may slip off or split and result in pregnancy/break/rip
   - Some people are sensitive to latex/may cause a reaction

   (1 × [1]) [1]

2. Combined pill
   Advantages
   - Prevents ovulation/egg being released
   - Received free from GP
   - It can relieve symptoms of premenstrual tension
   - If side effects experienced it can be easily stopped
   - Can protect against cancers of the ovary, womb and colon. May protect against pelvic infections
   - 99% effective

   (1 × [1]) [1]

   Disadvantages
   - Interferes with return of regular periods
   - Must be taken at the same time every day and on the correct days to be effective
   - Individual may forget to take the tablet which makes it ineffective
   - Antibiotics, vomiting and diarrhoea can make it unreliable
   - May cause side effects, e.g. mood swings, breast tenderness and headaches
   - Requires blood pressure to be monitored by GP to prevent thrombosis
   - Does not protect against STIs

	AVAILABLE MARKS
• Weight gain = [0] • May impact fertility = [0] (1 × [1]) [1]	7

AVAILABLE MARKS

4 **(a)** Explain why the following are important for pregnancy and state the foods they are found in.

Answers may address the following points:

(i) Dietary fibre (NSP):

- Found in wholegrain cereals, wholegrain bread, fruits and vegetables
- Fibre is needed to provide roughage to help keep the food moving through the gut and prevent constipation, which is common in pregnancy
- Fibre rich foods provide the body with a feeling of fullness which can help prevent snacking during meals avoiding excess weight gain during pregnancy

(1 × [3])

(ii) Folic acid:

- Found in green vegetables, yeast extract, fortified breakfast cereals and bread, citrus fruits, beans, peas, lentils, avocado, okra
- Folic acid helps to form the neural tube correctly, which itself forms the spine and brain
- It can prevent a condition known as spina bifida where the spine can split and cause various degrees of disability
- Should be taken 12 weeks prior to conception/pregnancy (and during the first 12 weeks of pregnancy)

(1 × [3])

(iii) Iron:

- Iron found in red meat, egg yolk, dried fruit, green leafy vegetables and cocoa
- Iron is essential for the production of haemoglobin, which produces red blood cells responsible for carrying oxygen to all cells in the body
- More iron is needed in pregnancy by the mother, baby and placenta
- A deficiency of iron can cause anaemia
- Vitamin C helps to absorb iron into the blood stream
- Provide 3 month supply in baby

All other valid responses will be given credit

(1 × [3])

Basic explanation [1]

Competent explanation [2]

Highly competent explanation including function and food sources [3] [9]

(b) Explain the following types of pain relief available during labour and birth.

(i) Gas and Air (Entonox)

- Entonox is a mixture of nitrous oxide (laughing gas) and oxygen inhaled through a mask or via a mouthpiece
- It is offered to the mother towards the end of the first stage of labour
- The mother is able to control her own intake/takes as much as she needs
- It works very quickly/short term
- It can be used during a home birth, water birth and throughout procedures during birth, e.g. administering an epidural and an episiotomy
- May make the mother feel sick
- No after-effects to baby

		AVAILABLE MARKS
• Effects wear off quickly • Calms the mother Basic explanation [1] Competent explanation [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 the spinal cord and brain • Electric currents can stimulate the production of endorphins which are the body's natural painkillers • Mother is in control of the machine • Cannot be used in a birthing pool Basic explanation [1] Competent explanation [2]	[2]	13

5 Karla is pregnant. Discuss foods she should avoid during pregnancy.

AVAILABLE MARKS

Level of response

Level 1 ([1]–[3])
Overall impression: basic
- Limited range of points, little or no discussion
- Demonstrates basic knowledge and understanding
- Quality of written communication is basic **or** in point form

Level 2 ([4]–[6])
Overall impression: competent
- Competent discussion of 3/4 foods to avoid
- Demonstrates competent knowledge of the consequences of eating foods Karla should avoid
- Quality of written communication is competent

Level 3 ([7]–[9])
Overall impression: highly competent
- Highly competent discussion of 4/5 foods Karla should avoid
- Demonstrates a highly competent level of knowledge and understanding
- Quality of written communication is highly competent.

Answer may address the following points:
- Soft cheeses, blue veined cheeses, paté, meat not cooked through, cook-chill foods not reheated properly, prepared salads, e.g. potato salad and coleslaw. Can result in listeriosis which can cause miscarriage, stillbirth or severe illness in the newborn baby
- Raw or lightly cooked eggs that do not display the British Lion mark and foods made with raw egg, e.g. mayonnaise, meringues, contain salmonella bacteria which can cause food poisoning in Karla and severe miscarriage or premature birth
- Foods high in vitamin A, e.g. liver and liver products, can cause congenital birth defects especially neural tube defects and defects to eyes, skull, lungs and heart
- Undercooked meat may contain a parasite called toxoplasmosis. This could severely damage the foetus, resulting in miscarriage, stillbirth, eye damage/ salmonella bacteria. Salmonella can be found in all meats. Chicken presents highest risk.
- Unwashed fruit, vegetables and salad ingredients as pregnant women may be infected with toxoplasmosis resulting in miscarriage, stillbirth, eye damage
- Nuts and nut products – allergic reaction in baby if Karla's close family members have asthma or nut allergy
- Prawns, unless fresh and thoroughly cooked, avoid in restaurants as they may contain toxins and chemicals which cause food poisoning
- Avoid too many processed foods – can be high in fat, sugar and/or salt, risk of high blood pressure and pre-eclampsia. Can contain food additives and tend to be low in NSP
- Avoid foods high in saturated fats – energy dense, could increase Karla's risk of excessive weight gain, gestational diabetes, difficult birth and weight could be hard to lose after birth
- No more than two portions of oily fish per week – can contain pollutants. Limit tuna/shark fish intake to avoid excess mercury which can harm baby's nervous system
- Avoid too much sugar – to help Karla reduce the risk of weight gain, gestational diabetes, difficult birth
- Caffeine/chocolate – speeds up heart beat of baby
- Spicy foods – heartburn/indigestion, common in pregnancy

All other valid responses will be given credit
No marks awarded for drinks or alcohol [9]

9

6 Discuss the following types of birth:

AVAILABLE MARKS

- Normal birth
- Breech birth
- Caesarean birth

Level of response

Level 1 ([1]–[3])
Overall impression: basic
- Limited range of points, little or no explanation
- Shows basic knowledge and understanding
- Quality of written communication is basic

Level 2 ([4]–[6])
Overall impression: competent
- Competent discussion of at least two types of birth. Maximum 5 marks if only 2 discussed.
- Quality of written communication is competent

Level 3 ([7]–[9])
Overall impression: highly competent
- Highly competent discussion of all three types of birth
- Demonstrates highly competent knowledge and understanding of the 3 types of birth
- Quality of written communication is highly competent

Answer may address the following points:

Normal birth
- Normal birth is a vaginal birth that takes place naturally, without help from the obstetrician. It is only suitable if the baby is positioned head down
- Pregnant mother is looked after by a midwife who monitors health and progress of the mother and baby
- A normal birth can take place at home or in hospital and may include a water birth delivery
- Pain relief is still available
- The baby is born during stage 2. The pregnant woman will be fully dilated to 10cm and her contractions are strong, regular and frequent. The mother will push under the guidance of her midwife. The baby's head will crown and the midwife will gently ease out the head and shoulders. The mother may require an episiotomy during stage 2 of labour to assist with delivering the head and shoulders
- The baby is usually delivered on to the mother's abdomen whilst the umbilical cord is cut and clamped
- After the baby is born the midwife will help with the delivery of the afterbirth (placenta) – stage 3 of labour. An injection of syntometrine may be given to speed this process up and prevent blood loss
- The mother may require stitches

Breech birth
- A baby is in breech position when it is "bottom down" rather than "head down" in the uterus before birth. This means that the baby's bottom or feet would be born first
- Pregnant women will be given the option of an obstetrician turning the baby by manipulating their abdomen to reposition the baby to "head down"
- The midwives will check throughout antenatal appointments if the baby is head down and if it is still in breech position a caesarean birth will be offered
- Dangerous for mother and baby

	AVAILABLE MARKS
Caesarean birth • There are many reasons why caesarean section is performed, but mainly it is recommended when there is a medical indication that a vaginal birth may not be safe either for the mother or her baby, e.g. breech, pre-eclampsia, multiple birth. A pregnant woman can elect to have a caesarean/may be planned • It is a surgical operation to remove the baby from the womb. The operation takes 30–40 minutes. The mother is given an epidural or spinal anaesthetic to numb her from the waist down. An anaesthetist and an obstetrician will carry out the operation • The cut is usually made just below the bikini line. An incision is made into the uterus and the baby is lifted out. The placenta is removed and the mother's uterus and abdomen is stitched back up again All other valid responses will be given credit [9]	9
Total	**60**