

New
Specification



General Certificate of Secondary Education
2011

Home Economics: Child Development

Unit 1

assessing

Parenthood, Pregnancy and Childbirth

[GHC11]

FRIDAY 3 JUNE, MORNING

**MARK
SCHEME**

- 1 (a)** Label the diagram of the male reproductive system using the correct words from the box. (AO1)
- (i) testes
- (ii) penis
- (iii) urethra
- (iv) scrotum
(4 × [1]) [4]
- (b)** Answers may address the following. (AO1, AO2) (FUNCTION)
- (i) the cervix
- opens during labour/widens to 10cm during labour
 - strong ring of muscle which surrounds opening to uterus
 - allows menstrual flow to leave the body
 - allows sperm to enter the uterus/fallopian tubes
 - closes off uterus during pregnancy/protects uterus from infection/protects uterus
 - birth canal
 - keeps baby in place while woman is pregnant
 - opening of uterus = [0], where baby comes from = [0].
- All other valid points will be given credit
(1 × [1]) [1]
- (ii) the fallopian tube
- transports ova (egg) to meet sperm
 - conception takes place here
 - sperm swim up to meet ova/egg
 - transports egg to womb/uterus.
- All other valid points will be given credit
(1 × [1]) [1]
- (iii) the uterus
- has muscular walls/to allow it to enlarge
 - enlarges/gets bigger during pregnancy
 - holds the foetus/baby during pregnancy
 - where baby grows, develops
 - where baby comes from
 - becomes part of birth canal
 - role in menstrual cycle
 - implantation happens here.
- All other valid points will be given credit
(1 × [1]) [1]

(c) Write down two ways a father can help during pregnancy. (AO1)

- support/reassure mother
- take an interest/find out about pregnancy
- attend antenatal clinic/classes/appointments
- help around the house/does more housework/let her rest
- make mother feel good about herself/compliment her
- caring for other children/babysitting
- be involved in preparation, e.g. buying equipment, clothes
- help with birth plan or discuss choices for birth
- encourage good eating habits, eat same diet
- stop smoking/reduced alcohol consumption
- helps her relax, massage her.

All other valid points will be given credit

(2 × [1])

[2]

9

2 (a) Complete the sentences below: (AO1)

(i) pregnancy

(ii) gynaecologist

(iii) oestrogen

(iv) K

(iv) miscarriage

(5 × [1])

[5]

(b) Write down two possible reasons why a child may be fostered. (AO1)

Answers may address two of the following points:

- family problems
- housing difficulties/homeless
- young mother
- death of parents
- neglect of children/alcohol/drug abuse
- abuse of children
- unplanned pregnancy
- poor parenting skills
- special needs child or difficult child – respite for parents
- single parent unable to cope
- ill parent/post-natal depression/in hospital
- parent in prison
- can't cope = [0], can't look after them = [0], money/can't afford child = [0].

All other valid points will be given credit

(2 × [1])

[2]

7

3 (a) Abby and Liam are expecting their first baby.

Write down four possible changes to their **lifestyle** after the baby is born. (AO1, AO2)

Answers may address the following points:

- less money/income/loss of wages (maternity leave)/financial
- less sleep/disturbed sleep
- changes to social life
- less time as a couple/relationship suffer
- feel stressed, under pressure
- lifelong responsibility
- less freedom
- one partner takes career break/opportunities change
- more work to do around house/hard work
- will need support, babysitters, family
- may need to move house, bigger house/bigger car
- travel more difficult/fewer holidays
- stop smoking
- couple become closer, strengthens relationship
- no pet, newborn safety
- can't afford a childminder = [0].

All other valid points will be given credit

(4 × [1])

[4]

(b) Describe the development of the foetus in the uterus at week 14. (AO1, AO2)

Answers may address the following points:

14 weeks

- 6cm in length/weights 55g
- looks human/fully formed
- can swim and make a fist
- muscles and limbs developed – developing = [0], start to develop = [0]
- heartbeat can be detected
- hiccups and drinks amniotic fluid
- can move limbs/sucks thumb
- has fingerprint
- nerves and muscles developing rapidly/spine developed
- facial features developed, eyelids covered
- sensitive to heat, touch, light, sound/senses developing
- sex organs developed/organs developed
- fingers and toes separate, nails grow.

All other valid points will be given credit

(1 × [2])

[2]

- (c) At the antenatal clinic checks and tests are carried out on pregnant women. Explain why the following are carried out. (AO1, AO2)

Answers may address the following points:

(i) Urine test

- protein – check for bladder, kidney infection
- protein (albumin) present/risk pre-eclampsia – dangerous for mother and baby
- sugar (glucose) present/indicates (gestational) diabetes
- ketones present/indicates dehydration due to excessive morning sickness, vomiting
- confirm pregnancy = [0].

All other valid points will be given credit

(1 × [2])

[2]

(ii) Blood pressure check

- **high** indicates possibility of pre-eclampsia/dangerous to mother and baby, may cause premature birth
- mother may need rest to bring pressure down
- high may indicate mother is stressed
- low blood pressure indicated in check.

All other valid points will be given credit

(1 × [2])

[2]

- (d) Explain the following: (AO1, AO2)

Answers may address the following points:

(i) Induction

- **artificial starting of labour**, by breaking membranes (waters) or by drip of oxytocin (syntocin) or use of hormone gel or pessary inserted in vagina
- may be because (baby distressed or at risk, past due date, mother high blood pressure or pre-eclampsia, mother's life at risk if labour not started).

All other valid points will be given credit

(1 × [2])

[2]

(ii) Ventouse extraction

- used when baby is having difficulty in birth canal during labour (2nd stage) (max [1])
- small cap connected to vacuum pump and then onto baby's head to help pull baby out of birth canal, when contractions occur (must be included for full marks)
- may cause swelling, bruising or mis-shaping to baby's head
- mother exhausted/mother or baby showing signs of distress/mother had epidural and can't feel when to push (max [1])
- not suitable for breech, premature baby.

All other valid points will be given credit

(1 × [2])

[2]

4 (a) Write down two possible symptoms of post-natal depression. (AO1)

Answers may address two of the following points:

- constantly tearful
- not bonding with baby/rejecting baby
- angry and short-tempered towards baby
- withdrawn/lack of emotion
- fear of going out
- lack of interest in own appearance
- low self-esteem
- weight loss, poor appetite, no interest in eating
- unable to cope/unable to make decisions
- resentful towards baby
- **constantly** tired/lethargic
- unaware of track of time
- panic attacks
- unable to sleep/insomnia
- crying = [0], tired = [0], anxiety/stress = [0], depression = [0].

All other valid points will be given credit

(2 × [1])

[2]

(b) Explain what happens during the following stages of labour. (AO1, AO2)

Answers may address the following points:

(i) Stage 2

- cervix fully dilated to 10cm
- uterus, cervix and vagina become continuous birth canal
- contractions very strong pushing baby down birth canal
- baby's head emerges from vagina, crowning
- mucus is cleared from baby's nose and mouth to help breathing
- episiotomy (cut) may be needed to stop tearing
- shoulders come out of vagina, baby is born – include for full marks
- contractions = [0].

All other valid points will be given credit

(1 × [2])

[2]

(ii) Stage 3

- baby becomes separate person, breathing by themselves
- umbilical cord is clamped and cut
- contractions continue to push out placenta (afterbirth)
- midwife checks placenta to make sure nothing left behind
- injection of syntocin may be given to speed up delivery of afterbirth and prevent excessive bleeding
- episiotomy, if required, now stitched using local anaesthetic
- baby checked and given to mother to hold.

All other valid points will be given credit

(1 × [2])

[2]

- (c) Kerry is pregnant with her second baby. She is considering giving birth at home. **Evaluate** this option for Kerry. (AO1, AO2, AO3)

Answers may address three of the following points:

(at least one advantage and one disadvantage must be included for full marks)

Advantages

- comfort of own bed, feel more relaxed, familiar surroundings, more comfortable
- other family members, e.g. dad, siblings can be present, hold baby, enjoy the experience
- family members can be involved, do chores, look after baby, good for family relationships
- familiar midwife, reassuring for mother, can discuss her preferences, midwife prepared for birth
- visitors can come at any time, no restrictions, mother can decide when she wants to see them
- more privacy for mother, no other patients there, can set her own routines, meal times
- baby is in routine straight away at home, may be more settled, no other babies crying.

Disadvantages

- no specialist equipment if anything goes wrong, e.g. heart monitor, incubator, operating facility if caesarean needed
- no specialist staff, e.g. obstetrician if mother has problems, paediatrician if baby ill when born/only midwife there
- no access to **range** of pain relief, e.g. no epidural as anaesthetist required/only breathing techniques, aromatherapy and maybe water birth available
- if complication arise may be delay in getting help, e.g. ambulance may be called, adds to risk for mother and baby
- no set visiting hours so mother may get little rest, lots of visitors
- mother still has household chores to do, little rest, may feel under pressure, responsibility of other child
- hospital not close by, need to get ambulance, too far – endangers baby.

NB: can only refer to hospital with reference to **home** birth

All other valid points will be given credit

(3 × [2])

[6]

12

- 5 A healthy diet is important during pregnancy. **Discuss** how a pregnant woman can have a healthy diet. (AO1, AO2, AO3)

Answers may address the following points:

- include range of nutrients, balanced diet, follow guidelines from hospital, doctor, etc.
- follow dietary guidelines for healthy diet, the eatwell plate + explanation
- protein foods for growth of mum (expanding body) and baby's growth + food found in
- carbohydrate foods for energy – mum carrying extra weight so will need plenty of energy/fill mum up, less chance putting on excess weight + foods found in
- calcium foods to prevent calcium deficiency in mum, for the development of baby's bones and teeth
- iron foods for healthy blood, produces haemoglobin, prevents anaemia/mother supplies baby's blood so needs iron in diet
- vitamin C needed to heal wounds, for connective tissue, to aid absorption of iron + foods rich in vitamin C
- vitamin D needed to aid absorption of calcium, important for mum and baby growth
- NSP, dietary fibre – prevents constipation, common problem in pregnancy, helps mum feel full up so less chance putting on extra weight
- low fat diet + examples, to control weight gain – can be difficult to get off after birth plus risk obesity, heart disease/fried foods can cause indigestion – more prone during pregnancy
- low sugar diet + examples, to prevent damage to teeth which are already vulnerable during pregnancy
- low salt diet + examples, may raise blood pressure
- drink water, no added sugar drinks – low in sugar so less risk to teeth, keep mum hydrated
- choose healthier cooking methods, e.g. steam vegetables for less fat and retain nutrients, grill instead of frying for less fat/fried foods can cause indigestion, more prone during pregnancy
- folic acid foods, e.g. green leafy veg, broccoli, spinach, bran cereals, bread, Marmite needed during first three months pregnancy, prevents NTDs, e.g. spina bifida
- do not eat for two, check portion sizes, keep check on weight gain, follow guidelines from midwife, extra weight difficult to remove after birth, risk of obesity
- read labels on convenience foods to ensure healthier choices – low fat, salt, sugar and high NSP
- limit caffeine to no more than 200mg day – high levels can lead to low birth weight and cause miscarriage, found in tea, coffee, chocolate
- prevent toxoplasmosis by avoiding undercooked meats, and ensure fruit and vegetables are well washed, especially if to be eaten raw
- avoid liver and liver products as too much will have toxic effect on unborn baby, may cause birth defects.

- avoid foods – pate, soft cheeses, cook-chill meals, undercooked meat, (risk listeriosis), peanuts (allergic reaction), shellfish, uncooked eggs, mayonnaise (salmonella), unpasteurised milk
All other valid points will be given credit

Level 1 ([1]–[3])

Overall impression: basic

- limited range of points, not all explained
- shows some knowledge of healthy diet
- quality of written communication is basic.

Level 2 ([4]–[6])

Overall impression: competent

- good range of explained points
- shows good knowledge of healthy diet and relates some points directly to pregnant woman
- quality of written communication is competent.

Level 3 ([7]–[9])

Overall impression: highly competent

- excellent range of explained points
- shows excellent knowledge of healthy diet and relates most points directly to pregnant woman
- quality of written communication is highly competent. [9]

9

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

- 6 Discuss the **three** methods of pain relief which may be available during birth. (AO1, AO2, AO3)

Discuss can include information on how each method works.

Pethidine

Advantages

- quick working injection given into thigh/makes muscles relax
- helps with pain, making contractions more bearable
- can be given by midwife, no doctor required/can be used for home birth
- can help mum relax.

Disadvantages

- will cross placenta to baby
- can make baby sleepy/drowsy after birth, may affect breathing, may not be able to see if baby is unwell, any problems
- can make mum drowsy afterwards and may affect ability to feed, look after baby/may affect sucking reflexes
- can make mum feel sick or vomit
- cannot be given too close to birth, mother needs to be able to push/more useful during the early stages of labour.

Epidural

Advantages

- stops the pain by blocking nerves that carry pain sensations to brain/can't feel pain of labour, numbs from waist down
- top-ups can be given throughout labour to maintain pain relief
- does not affect your mind, you still know what is happening
- can lower blood pressure if this is a problem
- can be topped up with local anaesthetic if you need a caesarean section
- mum will be calmer, benefits baby
- mobile epidural uses local anaesthetic, enables mother to move about.

Disadvantages

- needs to be given by a doctor – anaesthetist/may not be available when in labour
- may not work at first/takes about 20 minutes to take effect
- mum has to stay in bed, unless hospital have mobile unit
- mum needs a catheter during and for short time afterwards/can be uncomfortable
- may need labour quickened by drip as it can also slow down labour
- may need to ease off epidural near birth or use forceps or suction if mum can't help push baby out/rely more on midwife
- small risk of nerve damage/back pain, headaches
- not always completely effective, disconcerting for mum
- mum may feel cheated, can't feel labour.

Gas and Air/Entonox

Advantages

- mixture nitrous oxide and oxygen taken through mask or mouth piece
- mother in control of how much she is taking, making own decisions
- calms mother, helps her breathing as she has to take deep breaths/concentrates mum on her breathing
- can be used throughout labour, at any stage
- does not cross placenta/does not affect baby
- can be organised easily by midwife, no doctor required
- no after effects for mum or baby.

Disadvantages

- does not stop, suppress pain fully, may only be useful in early stages of labour
- some mums do not like idea of mask over mouth and nose
- can make mum feel sick, light headed
- not as useful during the second stage of labour when mum has to push baby out.

TENS

Advantages

- small electrical impulses block pain messages to brain/releases endorphins
- no drugs involved/no risk, side effects to mum or baby, does not cross placenta
- mum in control, can increase or decrease
- can distract mum from pain in early stages of labour
- can be used at home, portable TENS available.

Disadvantages

- little effect in later stages of labour, when pain is intense
- pads stuck to mum's back may be uncomfortable
- cannot be used by women with pacemakers or heart conditions as interferes with heart rhythms
- mum is unable to take bath or shower to relax/cannot be used during a water birth.

Aromatherapy

Advantages

- no drugs, natural method
- relaxing for mum
- no medical staff needed, can be used for home birth.

Disadvantages

- not effective in later stages of labour, limited pain relief
- some oils not suitable for pregnancy, need to be sure what is being used
- not all hospitals have someone with experience of aromatherapy, not all approve of it.

Acupuncture

Advantages

- no drugs, natural method, suppresses energy flow
- fine sterilised needles placed at specific points to ease pain sensations
- relaxing for mum
- no medical staff needed, can be used for home birth
- encourages the production of endorphins, body's natural pain relieving chemicals.

Disadvantages

- needles in back may be uncomfortable, unable to lie down or sit comfortably
- need acupuncturist to put in needles
- not available in many hospitals
- may only help in early stages of labour.

All other valid points will be given credit

Level 1 ([1]–[3])

Overall impression: basic

- limited range of points, not all explained
- shows basic knowledge and understanding
- quality of written communication is basic.

Level 2 ([4]–[6])

Overall impression: competent

- valid explained points for two to three methods
- shows good knowledge and understanding of each method
- some discussion evident
- quality of written communication is competent.

Level 3 ([7]–[9])

Overall impression: highly competent

- wide range of valid well explained points for all three methods
- shows excellent knowledge and understanding of each method
- discusses all three methods competently
- quality of written communication is highly competent.

[9]

9

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

Total

60