

MARK SCHEME for the May/June 2014 series

0637 CHILD DEVELOPMENT

0637/12

Paper 1 (Theory Paper), maximum raw mark 100

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Examiners were instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began, which would have considered the acceptability of alternative answers.

Mark schemes should be read in conjunction with the question paper and the Principal Examiner Report for Teachers.

Cambridge will not enter into discussions about these mark schemes.

Cambridge is publishing the mark schemes for the May/June 2014 series for most IGCSE, GCE Advanced Level and Advanced Subsidiary Level components and some Ordinary Level components.

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Section A

- 1 Premature or pre-term** [1]
- 2 Weight, Length, Head circumference** [1]
- 3 Sucking** – The baby will automatically suck anything that is placed inside the mouth. This is so that babies can feed straight after birth.
- Startle/Moro** – This is where the baby will flail their arms if they feel as though they are going to be dropped. This is a survival instinct to alert the carer that they are going to fall.
- Stepping/walking** – If you place the baby’s feet onto a flat surface, they will raise their legs as if stepping or walking.
- Grasping** – If you place a finger into babies’ hands they will grip it tightly.
- Rooting** – This is where babies will turn their head if you stroke their cheek. This is in order to help them find the nipple when feeding.

Responses must include reflex and explanation in order to achieve full marks. Variation of wording is acceptable if it conveys the same meaning. [6]

- 4 Lay babies on their backs as research suggest that this reduces the risk. This might be because it prevents the baby’s mouth and nose becoming buried in bedding. Place babies’ feet at the bottom of the cot. This is so that the baby does not wriggle down the bed and underneath the covers. Do not smoke around babies because this has been found to contribute to cot death. Possibly because it affects babies’ breathing. Keep the room the baby sleeps in cool. Overheating is thought to be a factor in increasing the risk of cot death. Breastfeeding babies could help to reduce the risk because it gives the baby antibodies that help to fight infection. Take the baby to the doctors if they appear unwell. Babies who are unwell could become overheated due to a high temperature and could have breathing difficulties if they have a chest infection. Do not cover babies’ heads with hats or hoods when they sleep as this contributes to over-heating.**

Variation of wording is acceptable. Logical and correct answers not listed above may be awarded a mark. Responses must describe the recommendation as the question asks. Responses that do not describe will not be awarded marks. [2]

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- 5 (a)
- hand washing after using the toilet before preparing a feed
 - careful disposal of used nappies
 - washing soiled bedding and clothing
 - cleaning babies' toys
 - sterilising bottles and eating utensils
 - discarding dummies that have been dropped onto the floor
 - throwing away food that has been dropped on the floor
 - keeping the area where the baby plays free from dust and dirt
 - bathing the baby regularly
 - preparing food correctly by washing fruit and vegetables

Responses must relate to cleanliness as the question asks. Any variation of wording and reasonable suggestion may be awarded a mark.

[4]

- (b)
- maintaining a balanced diet
 - keeping an appropriate body weight
 - regular exercise
 - avoiding stress
 - limiting alcohol
 - smoking
 - taking illegal drugs
 - getting adequate sleep

Answers may be in the positive or negative any reasonable response may be awarded a mark.

[3]

- 6
- to examine child's progress
 - keep a record of growth by measuring weight
 - gain advice upon feeding
 - to be informed about immunisation programme
 - for developmental checks
 - to get to know other parents who live locally
 - to purchase equipment
 - reassurance and support

Any logical correct answers not listed above may be awarded a mark.

[3]

- 7
- Play park – an outdoor area with equipment for children to develop their physical muscles.
 Toddler group – parents can meet other parents whilst their children play. These are usually in local centres. Parents stay with their children.
 Playgroups and nurseries – children stay here without their parents to help them to prepare for starting school and support their learning and development and to keep them safe whilst their parents work.
 Play centres – indoor play centres have equipment for children to play with to develop their large muscles. Parents stay with children and supervise them during this time.
 Groups and clubs – young children might attend classes such as ballet and gymnastics to keep fit and meet others.
 Family outings – children might meet others when going on family trips, such as to the zoo.
 Childminders – care for children in their own home in the absence of parents and carers. There might be children of different ages looked after together.
 Crèche – children attend a crèche for a short period of time whilst their parents are close by.
Any other reasonable response might be awarded a mark. In order to gain full marks learners will identify 2 places and describe each clearly.

[4]

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- 8 Solitary** – The child plays alone or by themselves within a group of children. (*Marks only awarded where stating within a group*)
- Parallel** – The child plays alongside others but does not join in or often communicate. (*Marks only awarded where stating ‘does not join in’.*)
- Looking-on** – Children do the same thing together but without involvement such as playing with two separate cars at the same play garage.
- Co-operative** – Where children play together, negotiate rules and share tasks. Such as being ‘mummy and daddy in role play’.

Answers must be fully explained and correct in order to achieve mark for each. [4]

Section B

- 9 (a)** Oestrogen – This is the female sex hormone, responsible for development and functioning of the female sex organs.
 Progesterone – Pregnancy hormone, helps uterus receive and maintain the fertilised egg, interacts with other hormones to control menstrual cycle.
 Oxytocin – makes uterus contract during labour.
 Prolactin – makes the breasts produce milk and controls production whilst breastfeeding. [4]

- (b) Answers *must* include** – This is when the egg is released from one or both ovaries each month *and one of the following*:
- happens around every 14th/15th day
 - the egg moves slowly down the fallopian tube
 - halfway through menstrual cycle

in order to be awarded 2 marks. [2]

- (c) Fertilisation** – *Answers must include a description of one the following*:

- sexual intercourse at the time an egg is released from the ovary
- egg and sperm meeting
- sperm penetrating egg
- egg and sperm fuse
- sperm enters egg

Implantation – *Answers must include a description of one of the following*:

- fertilised egg embeds in the uterus wall
- sperm and egg become attached to the uterus lining
- sperm and egg attaches to the uterus wall

Full marks are awarded where all information is correct for each and description offers details covering the above. [4]

(d)

Chemical	Implant, injection, combined pill, mini pill, IUD with hormones	<i>A reasonable explanation of what each is</i>
Natural	Abstinence, calendar method, withdrawal	<i>A reasonable explanation of what each is, for example This is where couples do not have sex until they wish to start a family.</i>
Surgical	Male sterilisation, female sterilisation	<i>A reasonable explanation of what each is, for example This is where the male has the tubes that deliver the sperm to the penis cut.</i>
Mechanical	Condoms, male and female, IUD, diaphragm, sponge	<i>A reasonable explanation of what each is, for example This is a sheath of rubber worn over the penis to prevent sperm entering the vagina</i>

[14]

10 (a) Gaining expert medical advice about the likelihood of a disease or condition being passed from parents to children. *Any variation acceptable providing it conveys 'expert or medical advice' and disease or condition being passed to children from parents. Both must be stated for full marks.* [2]

- (b)
- there is family history of inherited disease, previous abnormality within the family
 - mother and father closely related
 - making informed decision about becoming pregnant or continuing a pregnancy. [2]

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- (c) Cystic Fibrosis – this is an illness that affects the lungs, producing thick mucus that is difficult to cough up. Blocks the air passages and limits life expectancy.
 Haemophilia – blood does not clot properly, severe bleeding from minor wounds, only males are affected.
 Thalassaemia – red blood cells affected, type of anaemia, more commonly found in people from Mediterranean, Middle East, India and Asia.
 Sickle cell anaemia – more common in people from West Africa. The red blood cells change shape when short of oxygen. Type of anaemia.

Other correct answers may be awarded a mark.

Mark for correctly identified condition further marks for correctly identified description. [6]

- 11 (a)
- there are trained staff at hand
 - the baby can be monitored throughout labour
 - equipment is available if required to support delivery
 - mother does not need to wash bed linen
 - domestic duties
 - control of visitors
 - other mothers to share experiences with
 - opportunity to rest

Answers should be explained, not just stated. [5]

- (b) **Multiple births** – e.g. twins (or more) where delivery may be more difficult.
Caesarean section needed – because the baby is in breech position, previous c-section deliveries, low lying placenta, etc. meaning that the baby can only be delivered safely by a cut across the mother's stomach to open the uterus and remove the baby.
Medical problems – such as the mother being obese, having serious disability or health complaints that need monitoring throughout the labour.
Premature labour – if the mother goes into labour before the due date for the baby to be born the baby may need medical assistance when born.

Full marks only awarded where the risk is identified and explanation given for each. [4]

- (c)
- likely to have the same midwife throughout labour
 - stay in familiar surroundings
 - older children can be involved
 - better privacy
 - can choose conditions and location of birth
 - no imposed routines
 - can look after baby in whatever way suits mother and family
 - no need to travel
 - extended family can be involved

Answers should be explained, not just stated. [5]

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- (d)
- to help convey information
 - emotional support
 - physical support
 - practical support
 - follow birth plan
 - give advice

Any other reasonable suggestion may be awarded a mark.

[2]

Section C

12 *Answers must be in full, well written sentences.*

(a) Responses could include:

An only child:

Some parents choose to have just one child, or might have this imposed upon them because of population control. Only children grow up without having any siblings.

Positives

Have parents full attention – this can make child very confident

Do not have to share space, toys – allows child to have privacy and use imagination.

Parents may have more money to spend – material goods might make child have better opportunities and develop cognitively because of better resources.

Negatives

Do not have any one own age to play with – may feel lonely and isolated from peers.

May find it difficult sharing with others – could lead to child not wanting to share and causing conflict with others.

Might not relate to other children well – child might find it difficult to make friends.

The middle child of three or more:

The middle child may be the same or different sex to their siblings. There might be a close or large age gap between them and their older and younger sibling.

Positives

Have siblings to share and interact with – learn to be patient and wait their turn.

Opportunity to play with differing age ranges – ability to get along well with others.

Negatives

May feel uncertain of place – e.g. not baby or oldest – can lead to feeling detached or not important/special to parents.

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Being part of a large family:

Large families are less common now because of widely available birth control. Some families choose to have many children and this is becoming more common when parents divorce or remarry. Some religions do not allow artificial birth control so these families might have larger numbers of children.

Positives

Always someone to play with – children will get along very well with other children and might be confident and chatty when in a group

Experience of young children – know how to interact with younger children, might look after siblings so be responsible.

Learn to share – know how to take turns from an early age and avoid conflict with others.

Negatives

Little privacy – may lead to desire to be alone and do things by self.

Have to look after younger siblings – might resent having to be responsible for younger siblings.

Less money to buy things – might be unable to join in with activities friends enjoy because of cost, less opportunities.

Twins, Triplets and more:

These are children that are all born at the same time. They might be identical or not. They may be the same or different sex.

Positives

Likely to have a very close relationship with sibling/s – helps confidence.

Share birthdays – can make twins feel close bond.

Can share toys and clothes – siblings might be interested in similar things because at same stage and age.

Negatives

Lack of individual identity – can lead to feeling resentful and wanting to be individual.

Close bond – can cause speech delay, lead to social problems when mixing with others and anxiety when separated.

Reference to step and reconstructed families can be discussed where it relates specifically to position within the family.

Any other reasonable response may be awarded a mark.

0–6 marks	Low level response, not all areas attempted, incorrect or inaccurate information, no development of responses, question misunderstood.
7–12 marks	Medium level response, all parts attempted and some evidence of understanding positives and negatives and effects upon development and character. Examples might be included.
13–20 marks	High level response. All parts answered well and information correct and accurate. The responses are well written and logical and include development such as examples to further support answer.

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(b) It is important for adults to be a good role model because:

Children copy adults behaviour so it is important for adults to lead by good examples.
Examples might include:

- not using bad language in front of children who are likely to hear it and use the language themselves
- making sure they do not smoke
- children will think that it is ok to smoke themselves and may passively inhale adult smoke damaging their health
- if adults behave badly such as shouting, children will learn that this is how they deal with people and so shout themselves
- if adults smack or hit children, the children are more likely to become aggressive themselves children develop their eating habits from watching adults so will copy them and eat unhealthy things if adults show them this.

There are many more potential responses that might be awarded a mark.

The types of toys that support children's exploration or imitation are role play games and activities such as dolls, prams and pushchairs. Children will understand how parents interact with them by pretending to do it themselves such as telling off their dolls.

Play kitchen equipment will help children to practise the activities they see adults doing, but are not allowed to do themselves, such as using the kettle.

Children like to imitate activities beyond their capability that they have seen adults doing such as driving cars, so large boxes and chairs can help children to role play this.

Real life resources such as telephones and television remote controls are more appealing to children because they look like the ones that adults use, so this helps them to play more creatively.

Answers should include examples and reasons to gain maximum points.

[20]

0–6 marks	Low level response, not all areas attempted, incorrect or inaccurate information, no development of responses, question misunderstood.
7–12 marks	Medium level response, all parts attempted and some evidence of understanding. Role models discussed and toys suggested but not fully developed.
13–20 marks	High level response. All parts answered well and information correct and accurate. The responses are well written and logical and include development such as examples to further support answers.

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Question Number	Syllabus reference	Assessment Objective
1	2.9	AO1 (1)
2	2.9	AO1 (1)
3	2.9	AO1 (6)
4	2.10	AO1(4)
5 (a)	2.10	A01 (4)
5 (b)	1.4	AO1(3)
6	6.1	A01 (3)
7	3.7,6.5	AO1(4)
8	3.7	AO1(3)
9 (a)	1.2	AO2 (4)
(b)	1.2	AO2 (2)
(c)	2.1	AO2(4)
(d)	2.2	AO3(16)
10 (a)	2.3	A02(2)
(b)	2.3	AO2(2)
(c)	1.4, 2.3	AO2(6)
11 (a)	2.6	A03 (5)
(b)	2.6	AO3(4)
(c)	2.6	AO2(5)
12 (a)	4.2	AO4(20)
(b)	5.3	AO4(20)