

**UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS**

International General Certificate of Secondary Education

**MARK SCHEME for the November 2004 question paper**

<b>0637 CHILD DEVELOPMENT</b>
<b>0637/01</b> <b>Paper 1 (Theory), maximum mark 100</b>

This mark scheme is published as an aid to teachers and students, to indicate the requirements of the examination. It shows the basis on which Examiners were initially instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began. Any substantial changes to the mark scheme that arose from these discussions will be recorded in the published *Report on the Examination*.

All Examiners are instructed that alternative correct answers and unexpected approaches in candidates' scripts must be given marks that fairly reflect the relevant knowledge and skills demonstrated.

Mark schemes must be read in conjunction with the question papers and the *Report on the Examination*.

- CIE will not enter into discussion or correspondence in connection with these mark schemes.

CIE is publishing the mark schemes for the November 2004 question papers for most IGCSE and GCE Advanced Level syllabuses.

**Grade thresholds** taken for Syllabus 0637 (Child Development) in the November 2004 examination.

	maximum mark available	minimum mark required for grade:			
		A	C	E	F
Component 1	100	76	55	52	49

The threshold (minimum mark) for B is set halfway between those for Grades A and C.  
The threshold (minimum mark) for D is set halfway between those for Grades C and E.  
The threshold (minimum mark) for G is set as many marks below the F threshold as the E threshold is above it.

Grade A\* does not exist at the level of an individual component.

November 2004

INTERNATIONAL GCSE

MARK SCHEME
MAXIMUM MARK: 100
SYLLABUS/COMPONENT: 0637/01 CHILD DEVELOPMENT (Theory)

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### Section A

Answer **all** questions

1. ONE mark for each correct answer. TWO required

Baby is 'wanted'  
 Financial support  
 Accommodation  
 Maturity  
 One partner may take a career break  
 Restricted social life  
 Long-lasting responsibility  
 Extra expenses  
 Loss of freedom  
 Children are hard work  
 A stable relationship

2 x 1

2. One mark for each correct answer. TWO required

Cystic fibrosis  
 Haemophilia  
 Thalassaemia  
 PKU  
 Muscular dystrophy

2 x 1

3. ONE mark for each correct answer. TWO required

Hormonal imbalance in woman  
 Low sperm count  
 Fibroids  
 Endometriosis  
 Failure to ovulate  
 Blocked Fallopian tubes  
 Cervical mucus too thick  
 Cancer treatment  
 Blocked tubes from testicles

2 x 1

4. ONE mark for the correct answer

Being born bottom or legs first

1 x 1

5. ONE mark for each correct answer. TWO required

Sucking/swallowing  
 Walking/stepping  
 Falling/Moro  
 Startle  
 Rooting  
 Grasping

2 x 1

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- 6.** ONE mark for the correct answer
- The muscles in the neck are weak and undeveloped.  
The head should always be supported to prevent the head falling backwards
- 1 x 1**
- 7.** ONE mark for the correct answer
- The precise use of the hands and the fingers.  
Use of hands, eyes and brain being trained to co-ordinate
- 1 x 1**
- 8.** ONE mark for each correct answer. FOUR required
- Nuclear  
Extended  
Foster  
Step  
One/single/lone parent  
Shared-care
- 4 x 1**
- 9. (a)** ONE mark for each correct answer. TWO required
- Constantly runny nose  
Fever/very hot  
Loss of appetite  
Rash  
Vomiting  
Diarrhoea  
Unusually pale  
Fretfulness/restless  
Unnaturally quiet/limp  
Dull eyes
- 2 x 1**
- (b)** ONE mark for each correct answer. THREE required
- Take some toys with them  
More toys to play with in hospital  
Take favourite nightwear in with them  
Doctors and nurses will look after them  
Other children to play with  
Parents can visit  
One parent may be allowed to stay with them  
Show them books about being in hospital
- 3 x 1**

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10. ONE mark for each of the following. FOUR required

Adoption

Permanent

Legal process- natural parents give up all responsibility

No financial support

Adoptive parents take on all responsibility for child

For lifetime

Fostering

Not permanent

Financial support provided

Short term

Child can return to own home at any time

No legal responsibility

DO NOT ACCEPT OPPOSITE ANSWERS

4 x 1

11. ONE mark for each correct answer. TWO required

Using hands

Tone of voice

Facial expression

Using the eyes

2 x 1

12. ONE mark for each correct answer. FOUR required

Positive

Happy

Excited

Love

Joy

Pleasure

Patience

Negative

Anger

Resentment

Guilt

Hate

Jealousy

Impatience

4 x 1

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## Section B

Answer **two** questions

13. (a) ONE mark for each correct answer. TWO required

Helps towards happiness  
 Reduces stress  
 Reduces boredom  
 Helps divert aggressive instincts  
 Enables children to find out about themselves and the world they live in e.g.  
 Discovery  
 P.I.E.S skills  
 Experimenting  
 Inventing  
 Speech skills

2 x 1

- (b) ONE mark for each correct answer. THREE required

Solitary play  
 Parallel play  
 Looking-on play  
 Joining-in play  
 Co-operative play

3 x 1

- (c) ONE mark for each correct type of play. THREE required  
 ONE mark for each correct example. THREE required  
 Any suitable activity can be accepted. NO REPEATS

**Discovery/exploratory** play e.g.  
 Involves the senses - taste, smell etc.  
 Listening to sounds - rattles, music etc.  
 Using different textures - water, sand, making cookies  
 Using different sized beakers to play with  
 Shapes, colours, size and weight can be learnt

**Imaginative** play e.g.  
 Role/pretend play-dressing up  
 Doctors and nurses

**Physical** play e.g.  
 Running  
 Kicking a ball  
 Climbing  
 Hop scotch  
 Skipping

**Manipulative** play e.g.  
 Sewing cards  
 Threading beads  
 Dot to dot  
 Drawing

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**Creative** play e.g.

Painting

Making models

Playing with dough

Building/construction

Making music

3 x 1

(d) (i) ONE mark for each correct answer. FOUR required

Check that fluffy toys are washable

No sharp edges

No loose parts

Paint to be lead free

Safety mark e.g. CE lion mark

Free from spikes and staples

Not to break easily

Look for manufacturer's instructions for use and care and age recommendations

4 x 1

(ii) ONE mark for each correct answer. THREE required

Suitable for age of child

Strong enough

Help to develop new skills

Be suitable for the ability of the child

Appealing/interesting to the child

Last a long time

3 x 1

(e) ONE mark for the correct answer

Any suitable toy appropriate for a six month old baby e.g.

Activity centres/mats

Building bricks

Musical toys

Soft toys

Rattles

Plastic keys

1 x 1

(f) ONE mark for each correct answer. SIX required

Stacking beakers encourage all areas of development (P.I.E.S)

Grasping/holding the beakers - physical

Recognition of colours - intellectual

Filling with sand/water - intellectual

Playing with others - social/emotional

Building in a tower - physical

Knocking down a tower - emotional

Counting - intellectual

Learning about size - intellectual

All these can be learnt from playing with the beakers as the child develops through the stages.

6 x 1

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14. (a) ONE mark for the correct answer
- Is one that contains the right amounts of all the necessary nutrients/food substances 1 x 1
- (b) ONE mark for each correct answer. THREE required
- Protein - growth and repair  
Secondary source of energy  
Carbohydrate - energy  
Fat - warmth and energy 3 x 1
- (c) ONE mark for each correct answer. EIGHT required
- Vitamin A e.g. milk, butter, carrots, margarine, fish liver oils, green vegetables, cheese, oily fish
- Vitamin C e.g. citrus fruits, blackcurrants, green vegetables 2 x 1
- Iron e.g. red meat, liver, eggs, green vegetables, dried fruit, Cocoa, plain chocolate 2 x 1
- Calcium e.g. milk, cheese, yogurt, green vegetables, white bread 2 x 1
- DO NOT ACCEPT REPEATS 2 x 1
- (d) TWO marks for the correct answer
- Helps to prevent defects in the foetus e.g. spina bifida 2 x 1
- (e) ONE mark for each correct answer. TWO required
- Give children diluted, unsweetened drinks  
Avoid fizzy/sugary drinks  
Avoid adding sugar to foods and drinks  
Limit the amount of sweet foods  
Provide pieces of fruit/vegetables for snacks 2 x 1
- (f) ONE mark for each correct advantage. TWO required  
ONE mark for each correct disadvantage. TWO required
- Advantages  
Quick to prepare  
Easy instructions to follow  
Variety of different flavours  
Useful for travelling/holidays 2 x 1

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Disadvantages

Expensive

May be high in sugar

May be high in fat

Baby will not be used to eating what the rest of the family eats **2 x 1****(g)** ONE mark for each correct answer. FIVE required

Include foods high in fibre

Ensure there is a balance of nutrients

Provide a variety of foods

Provide a variety of textures

Make the food colourful

Ensure food will look attractive

Small portions

Choose healthy methods of cooking e.g. grilling

Plenty of healthy drinks should be provided **5 x 1****15. (a)** ONE mark for the correct answer.A vaccine is given to make the body produce antibodies to fight infection. **1 x 1****(b)** ONE mark for each correct answer. TWO required

Droplet infection - sneezing, coughing, singing, talking

Contact - kissing, touching, sharing toys, sharing towels **2 x 1****(c)** ONE mark for each correct answer. THREE required

A fever

Taking medication

A bad reaction to a previous immunisation

A severe reaction after eating eggs

A convulsion/fit at any time **3 x 1****(d)** One mark for each correct answer. FOUR required

Chickenpox

Red rash with swollen glands

Polio

Painful swellings near the jaw on one or both sides **4 x 1****(e)** ONE mark for each correct answer. THREE required

Diphtheria

Tetanus

Pertussis **3 x 1**

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- (f) ONE mark for each correct answer. THREE required

Babies

High-pitched moaning cry  
 Difficult to wake  
 Bulging fontanelle  
 Blank expression  
 Arched back

Children

Severe headache  
 Stiff neck  
 Drowsiness  
 Painful joints  
 Dislike of bright lights  
 Fever (possible cold hands and feet)  
 Vomiting  
 Rash

3 x 1

- (g) TWO marks for the correct answer.

The time between the entry of the germs into the body and the appearance of the symptoms

2 x 1

- (h) ONE mark for each correct answer. TWO required

Severe bleeding  
 Severe burns  
 Severe pain  
 Severe vomiting or diarrhoea  
 Swallowing poison  
 Unconsciousness  
 Difficulty in breathing  
 Fit/convulsion  
 Swallowing a dangerous object e.g. safety pin

2 x 1

- (i) ONE mark for each correct answer. FIVE required

Wash face and hands regularly  
 Clean teeth  
 Warm room  
 Room well ventilated  
 Straighten bedclothes  
 Change bedclothes/nightwear as necessary  
 Tray of toys/games  
 Music  
 Books

5 x 1

16. (a) ONE mark for the correct answer.

The length of time changing from childhood to adulthood

1 x 1

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- (b) ONE mark for each correct answer. FOUR required

Girls

Pubic hair  
Menstruation begins  
Breasts develop  
Underarm hair  
Fat laid down in the hips

Boys

Pubic hair  
Body hair  
Genitals enlarge  
Voice deepens  
Muscles develop in shoulders and arms

4 x 1

- (c) ONE mark for each correct answer. SEVEN required

A = seminal vesicle  
B = penis  
C = scrotum  
D = foreskin  
E = testis  
F = urethra  
G = sperm tube (vas deferens)

7 x 1

- (d) ONE mark for the correct answer.

The release of the egg from an ovary

1 x 1

- (e) ONE mark for the correct answer.

The 14th day

1 x 1

- (f) ONE mark for each correct answer. TWO required

Female

Oestrogen  
Progesterone

Male

Testosterone

2 x 1

- (g) ONE mark for each correct answer. FOUR required

Nutritious diet  
Not to be overweight  
Stop smoking  
Stop drinking alcohol  
Stop taking drugs/medicines without doctor's permission  
To have genetic counselling  
Check with G.P. on immunity to Rubella  
To be as healthy as possible  
Folic acid supplements - 3 months before conception

4 x 1

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(h) ONE mark for each correct answer. FIVE required

- Stable relationship
- Maturity
- Financial situation
- Accommodation
- Career break for one partner
- Extra expenses for equipment
- Cost of child care
- Consider closeness of pre-schools/parks
- Garden to play in
- Accept the full time responsibility

5 x 1

### Section C

Answer **one** question

17. A high level response = 14-20

The candidate is likely to cover both parts of the question in depth and detail. Will provide a balanced answer on parents' encouragement and conditions that may hinder intellectual development.

The development of a child's mind will depend on the encouragement that parent's provide. Help can be provided in the following ways:

- Talking to the child
- Playing with the child
- Providing a variety of toys and objects to stimulate imagination
- Allowing to practise new skills e.g. dressing, drawing, feeding him/herself
- Playing with other children
- Being creative
- Listening to stories
- Looking at books
- Allowed to explore new places
- Being curious
- Asking questions and to have them answered

The following conditions can slow down the rate of development of a child's mind:

- Lack of opportunities for playing
  - Nothing of interest for the child to do
  - Constant nagging or bullying
  - Deafness
  - Poor eyesight
  - Poor concentration
  - Frequent illness
  - Frequent absence from school
  - Lack of opportunities for talking
  - Not taking child out to different places
- If the conditions last for too long they may prevent the full development of the child's intelligence.

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A mid range response = 7-13

A mid range candidate will cover many points but the response will lack depth and detail. Candidates in the lower mark range may only concentrate on one part of the question making brief comments about the second part.

A low level response = 0-6

The candidate is likely to mention some points on encouragement but only superficially. The candidates may only answer one part of the question.

**18.** A high level response = 14-20

The good candidate will cover the advantages and the disadvantages precisely and explain in detail the factors a couple may consider in choosing a method of contraception.

Combined pill

Advantages

- Protects against cancer of ovaries
- Suitable up to the age of the menopause
- Reduces period pain, bleeding and PMT
- Does not interrupt love-making

Disadvantages

- Some medicines stop the pill from working
- Is not effective if taken more than 12 hours late, after vomiting or severe diarrhoea
- Not suitable for all women
- Have to remember to take it
- Rare, but serious side effects e.g. blood clots

Progestogen only pill (mini-pill)

Advantages

- Suitable for older women who smoke
- Can be used when breastfeeding

Disadvantages

- Irregular periods
- Less effective in heavier women
- Must be taken at the same time each day
- Medicines may stop it from working
- Not effective if taken over 3 hours late, after vomiting or severe diarrhea

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### Contraceptive injection

#### Advantages

- Protects against pregnancy for 12 weeks
- Do not have to think about it
- May protect against cancer of the uterus

#### Disadvantages

- Irregular periods
- Possible side effects e.g. weight gain, headaches, acne
- Regular periods and fertility may take a year or two to return to normal after coming off the injection
- Hormone cannot be removed from body so any side effects will have to be put up with
- Medicines may affect injection

### Contraceptive implants

#### Advantages

- A single tube protects against pregnancy for up to 3 years/others up to 5 years
- Do not have to think about it
- Once implant has been removed fertility returns straight away

#### Disadvantages

- Irregular periods
- Removal of implant often difficult
- Possible side effects include headaches, mood changes and weight gain
- Some medicines may affect implant

### I.U.D. Intrauterine device

#### Advantages

- Works as soon as inserted
- Can stay in place for three to ten years
- Do not have to think about it

#### Disadvantages

- Periods may be heavier and longer
- Not suitable for women who already have heavier periods
- Not suitable for women at risk from sexual transmitted disease

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### I.U.S Intrauterine system

#### Advantages

- Prevents pregnancy for five years
- Periods will be lighter and shorter
- Works as soon as it is inserted
- Do not have to think about it

#### Disadvantages

- Irregular light bleeding for first three months
- Temporary side effects include acne and breast tenderness

### Female sterilisation

#### Advantages

- Permanent
- Do not need to think about it

#### Disadvantages

- Fallopian tubes may rejoin
- Contraception must be used until the first period after the operation

### Male sterilisation - vasectomy

#### Advantages

- Permanent
- Do not need to think about it

#### Disadvantages

- Vas deferens may rejoin
- Usually takes a few months for no sperm to be present
- Contraception must be used until there are two negative semen tests

Couples will need to consider carefully the various methods of contraception available if they do not want a baby. Using this knowledge they are able to plan their family and only have a baby when they want one.

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The following factors will affect the decision of which method to choose:

Individual preference - some methods of contraception may not appeal to the couple for a number of reasons i.e. the female may not want to use a method that involves putting hormones into her body as with the pill

Religious beliefs - a Roman Catholic may only want to use the natural method as any of the other methods are against their beliefs

Age - older women may not be able to use the combined pill or younger women may be advised not to have an I.U.D fitted as these are really only suitable for those who have already had a baby.

Whether short or long term method is required - depends on the time that the couple wish to use the method for e.g. using the contraceptive injection may affect the return of regular periods for up to one to two years.

Reliability of the method - some are more reliable than others and only work if they are used correctly.

A mid range response = 7-13

A mid range response will name method correctly and provide some advantages and disadvantages. The second part of the question will be answered briefly but will lack detail. Candidates in the lower mark range will only answer the first part of the question correctly.

A low level response = 0-6

A low level candidate may only answer the first part of the question and the answers given may only mention the names of the methods and advantages and disadvantages may be muddled.