BRITISH GYMNASTICS COACHING QUALIFICATIONS

LEVEL 4 COACH

WOMEN'S ARTISTIC GYMNASTICS SAMPLE PAPER WITH ANSWERS

Instructions to candidates:

- Questions will be under the headings shown. Each question will be worth 10 marks
- Available marks will be 60. Pass mark at 60% = 36 marks.

1. Age and stage of Maturation
Show your understanding of the 4 stages of child development from ages 6-8 yrs and how these will impact on the training of gymnastics.
2. Biomechanics
Explain in mechanical terms how rotation is created and how it is controlled in a forward somersault from a run.
3. Method
Describe or draw 5 exercises which may be used to develop awareness in preparation for the blind change on bars.
4. Specific Physical preparation
Describe or draw 5 exercises you would use to develop leg strength relative to the teaching of a double back somersault on the floor.
5. Technique
Describe the technique you would expect to see in the free walkover for beam. Use figurines if possible to aid your description
6. Judging

1. What is the deduction if the gymnast does not start her routine within 30 seconds of the green light being lit or the judge signalling?
2. How many run-up approaches is the gymnast allowed in Competition 1 providing she has not touched the springboard or vaulting table?
3. What is the deduction when an intermediate [extra] swing is performed between two bar elements?
4. A gymnast only has backward acrobatic elements in her beam exercise. What is the penalty?
5. What is the maximum deduction for lack of split in dance elements?

(10 questions will normally be asked in the judging section).

Guidance to candidate:

- **If it says technique, then give technique only and not method etc.**
- **Method means progressions; these should be done in a progressive order; if teaching a tuck back somersault you wouldn't do a supported somersault and then go back to learning the tuck shape.**
- **If it asks for 5 of something don't do 6 or 7. The extra list etc won't be considered and may even go against you as they may show a weakness in your knowledge.**
- **When doing drawings try and make as clear as possible.**
- **Always make you answer specific to the question. ie safety for trampoline. If talking about discipline then it should relate to the trampoline and not just the training of gymnasts generally.**
- **Time your self so you allow enough time for each question. The examiner expects some depth to each answer.**
- **Don't use colloquial names for apparatus or practises. Describe or draw.**

- **Remember you are meant to show the examiner your knowledge, to say 'good' is not sufficient; what is good in the case of a round or back flip? If the question is on technique then the examiner needs to know what good is.**

Answers

Q1. Age and stage of maturation. ***Show your understanding of the 4 stages of child development from ages 6 – 8 yrs***
and how these will impact on the training of gymnastics.

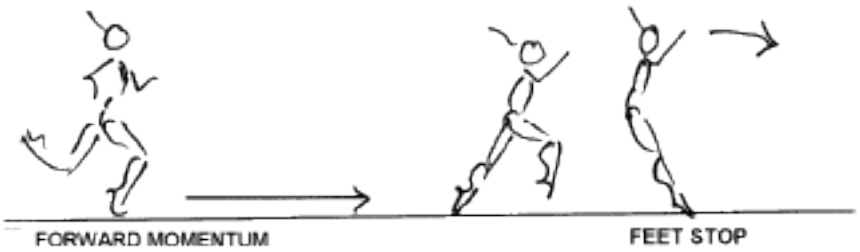
6 – 8 years
In this time the gymnast is learning coordination patterns . Core gymnastic skills should be taught along with simple stretching and strengthening skills

8 – 10 years.
Speed increases as well as strength and mobility. This is a great time for teaching and refining basic technical skills.

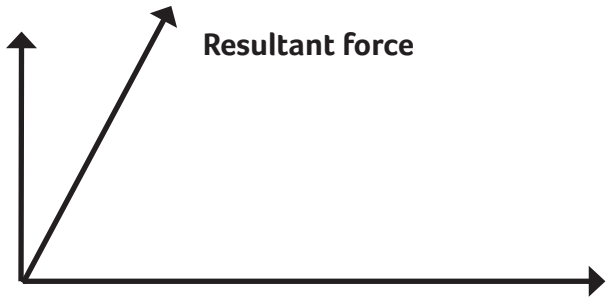
10 – 13years. Early puberty
Some gymnasts will experience accelerated growth. This will affect coordination skills as well as strength & flexibility. The coach should concentrate on adapting the training around these problems. This is a time to improve the aesthetic and kinaesthetic aspects of the work as well as refining skills.

13 years – 15years. Late puberty
With many gymnasts the rate of growth decreases. The work on strength training can then be stabilised as well as maintaining range of movement. More advanced skills and routines can be learned and perfected.

Q2. Biomechanics. ***Explain in mechanical terms how rotation is created and how it is controlled in a forward somersault from a run.***
Rotation for the forward somersault is set up in 2 ways, both acting together. Firstly it is set up about the pivot point.



The gymnast runs forwards, then joins the feet ready to jump into the somersault. As the feet stop moving so the momentum in the top half of the body continues moving forwards. As the feet are fixed, so the body will actually rotate forwards.



When this is coupled with an upward jump so the resultant force is so.

Secondly rotation is set up by eccentric thrust.

The gymnast places the feet in front of the body at take off, creating the type of shape as shown. The centre of mass is outside the body.
The upward force is then away from the centre of mass and this also creates rotation. Having set up rotation for the somersault, the gymnast can control it by firstly extending into the somersault, then by tucking or piking the rotation is speeded up. The gymnast slows down the rotation by extending the body before landing.

3. Method. ***Describe or draw 5 exercises which may be used to develop awareness in preparation for the blind change on bars.***
(i) Dish shape: important prior to the blind change

Gymnast holds dish shape rocking backwards & forwards in dish.

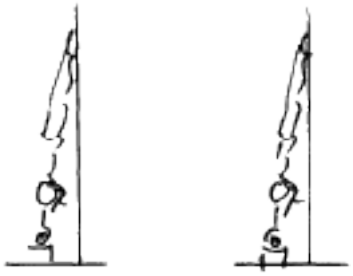
(ii) Dish shape, ½ turn feet leading to dish on forearms.

(iii) Opening the shoulder angle with elastic resistance.

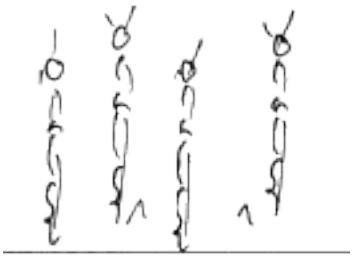
The opening of the last 10 – 14 degrees is crucial for the correct giant action and therefore the blind turn.

(iv) Backward roll to handstand with ½ turn on the floor.

(v) Floor bar or floor beam against wall. Handstand, hands in overgrasp and undergrasp. Change weight to balance on 1 arm then the other.

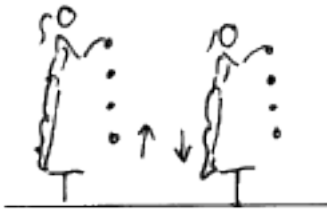


4. Conditioning. ***Describe or draw 5 exercises you would use to develop leg strength relative to the teaching of a double back somersault on the floor.***
(i) Bounces on the toes keeping body straight.



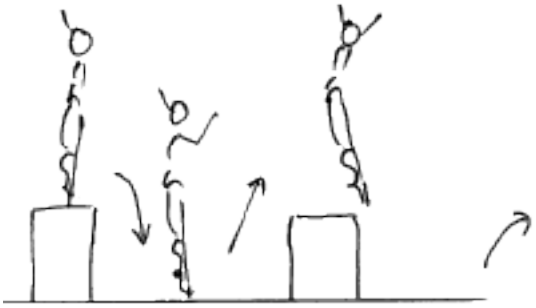
(ii) Rebound tuck jumps. As above keeping good body shape but tucking at top of jump.

(iii) Heel raises - gymnast stands on bench, holding wall bars or something similar.



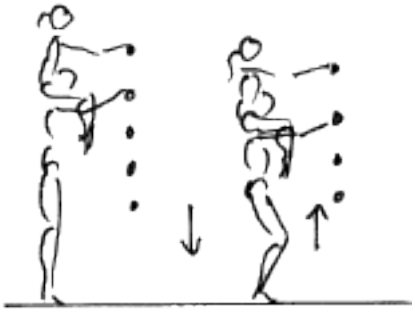
20 heel raises with both legs. 10 left leg, 10 right leg. Can also be done with gymnast using additional resistance weight around waist or ankles.

(iv) Plyometric training.



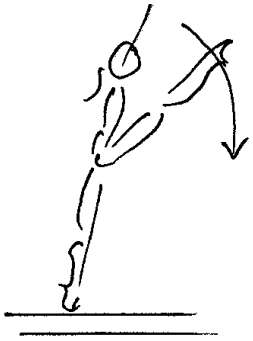
Can be done over blocks or box tops or to stand again on high platform.

(v) Partner sits on gymnast's shoulders. Bends knees slightly for landing preparation (eccentric muscle action).

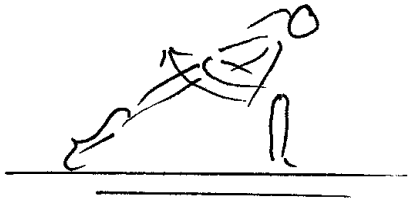


5. Technique. ***Describe the technique you would expect to see in the free walkover for beam. Use figurines if possible to aid your description.***

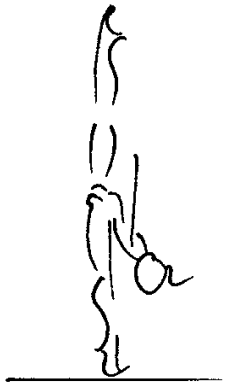
The gymnast begins facing down the beam and if possible should approach the skill from one step only. It helps if the gymnast rises up on the toes of support leg before stepping into the skill (with arms high as shown).



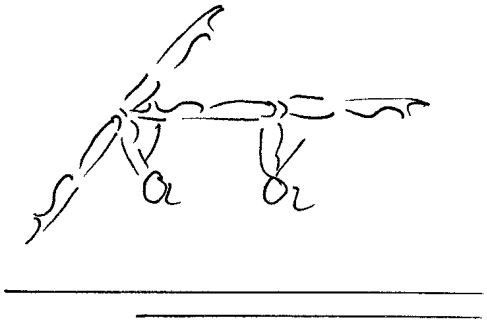
She should make a long step into the walkover with the shin vertical and a knee bend of approximately 100º. The chest moves down close to the thigh. At this stage the arms have swung forwards and downwards and beginning to move backwards behind the hips.



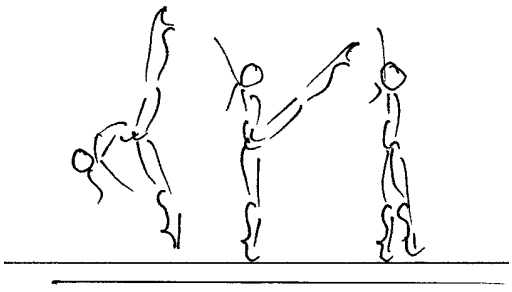
This is the trigger point to the free walkover. She must straighten the leg to make a jump and at the same time swing the back leg straight to a split position as well as continuing to circle the arms backwards and upwards. This action of the arms actually helps to lift the body as well as keep the shoulders low. The support leg must be straight before it leaves the floor making a final thrust into the beam by extending the ankle. These three actions must work together to obtain maximum lift and rotation, (rotation around the front foot).



The gymnast rotates forwards with the leg split as shown. The arms should be out to the side horizontal. The height of the gymnast from the beam should be 30 – 50 cms (distance between head & beam).



As the gymnast steps out of the walkover, first foot landing so the arms continue to circle backwards and above the head. The second leg should be high but then come down to join the first or step forwards depending upon the next skill.



Q6. Judging

1. 0.3
2. 2
3. 0.5
4. 0.5
5. 0.3