higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

MARKING GUIDELINE

NATIONAL CERTIFICATE

MEDICAL PRACTICE N6
(First Paper)

14 JUNE 2018

This marking guideline consists of 6 pages.

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SECTION A

QUESTION 1

1.1
1.1.1 Cytology
1.1.2 Congenital
1.1.3 Chronic
1.1.4 Endocarditis
1.1.5 Angina pectoris
1.1.6 Tachycardia
1.1.7 Haematemesis
1.1.8 Encephalitis
1.1.9 Monoplegia
1.1.10 Referred pain

(10 × 2) (20)

1.2
1.2.1 Pain without a physiological origin
1.2.2 Reacts on no commands
1.2.3 Growths from the epithelium tissue of the nose
1.2.4 Infection of the middle ear
1.2.5 A wide range of sounds in the ear
1.2.6 The ball of the eye enlarges due to bad drainage
1.2.7 It effects the lenses of the eye, light cannot pass through it
1.2.8 Inflammation of the vocal cords
1.2.9 The alveoli enlarge and the walls break through
1.2.10 Varicose vain in the anal region

(10 × 2) (20)
[40]

TOTAL SECTION A: 40

SECTION B

QUESTION 2

2.1 This stage is reached when inflammation has stretched over a long period. Healing is very difficult and fails in some cases. It is characterised by …

- chronic secretion of pus.
- formation of connective tissue which results in a scar.
- the forming of granulation tissue which is also a type of connective tissue but contrary to the above, leaves no scar but forms a granuloma. This is a soft, round mass which can be felt with the fingers. (7)

2.2 Inflammation of the heart muscle is quite a common condition. People do not realise how serious it is and participate in strenuous exercise while they have a flu attack. Diphtheria, scarlet fever and typhoid or enteric fever may also cause myocarditis. (3)

2.3 This is when a thrombus or blood clot forms in a vein. If the thrombus comes loose and lodges in another place, it is called embolism. (4)

2.4 This is a hereditary disease and is limited exclusively to members of the male gender who are called bleeders or haemophiliacs. The cause is that there are no clotting factors present in the blood, like for instance calcium blood platelets, fibrinogen or factors VII and VIII. In the case of such a bleeder who enters the consulting room, the doctor gives a transfusion of fresh, normal plasm or concentrated fibrinogen. The disease comes to the fore after the first or second year when one observes that little wounds bleed excessively. The older the person becomes, the less he or she is inclined to bleed. (6)
[20]

QUESTION 3

3.1 Study of serum to detect what specific microbes and antigens or anti-bodies appear in the blood. (3)

3.2
- Staphylococcus
- Streptococcus
- Diplococcus (3)

3.3
- Coryza (common cold)
- Influenza or flu
- Herpes simplex (appears as either fever blisters or shingles)
- Measles
- Rubella or German measles
- Varicella or chicken pox
- Variola smallpox
- Parotitis or mumps
- Poliomyelitis
- Virus encephalitis
- Infective mononucleosis or glandular fever (Paul Bell serology test done for this condition)
- Infective hepatitis – jaundice (Any 4 × 1) (4)

3.4 Through:
- the air
- the mouth
- direct contact
- infected wounds
- inoculation (5)

3.5 Inhibition of:

- growth by the replacement of essential metabolites, e.g. sulphonamides
- cell wall synthesis, e.g. penicillin
- cell membrane function, e.g. polymyxin
- protein synthesis, e.g. chloramphenicol, tetracycline, eritromycires, etc.
- muscle acid synthesis, e.g. actinomycin (5)

[20]

QUESTION 4

4.1 4.1.1 It is the sudden absence of menstruation.

4.1.2 It is painful menstruation. It may be regarded as normal in some women, because menstruation is usually painful without any specific cause.

(2 × 2) (4)

4.2

- Amenorrhoea
- Morning sickness
- Frequent urination
- Enlarged and painful mamma (4)

4.3 FIRST STAGE

- It begins with rhythmical contractions which keep on till the cervix is fully dilated. It is fully dilated when the opening is 10 cm across, or five fingers may be placed in the opening during a vaginal examination. This stage lasts with a first baby on average 13,5 hours, with a second baby between 6 and 10 hours. The mother's pulse and blood pressure are taken every half hour. The baby's heart is monitored each half hour by means of a foetal stethoscope. In modern hospitals a cardiotocograph is used. It is a computer procedure.

SECOND STAGE

- This is the ejection of the baby by the fully dilated cervix – it is the actual birth. It lasts more or less 30 minutes. If it has not been completed after 30 minutes, instruments are used to complete the process. The umbilicus is cut off and the baby cries.

THIRD STAGE

- This is the ejection of the placenta and the amniotic sack and the umbilical cord. It must happen within 20 minutes. If it has not happened spontaneously by that time, the doctor has to remove it.

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FOURTH STAGE

- Every mother must stay in the labour room for 20 minutes after labour. It is a convalescent stage during which her pulse and blood pressure is taken every half hour.

Labour starts as soon as one or all three of the following signs are visible:

- Rhythmic, painful contractions
- The show is present
- The amniotic sack breaks and fluid comes out (12)

[20]

QUESTION 5

5.1 Clinics for babies with feeding problems
Subnutrition and malnutrition are handled and if necessary referred to a hospital.

Clinics for immunisation against contagious diseases
Immunisation against smallpox, diphtheria, tetanus and poliomyelitis is administered free of charge.

Clinics for family planning
Guidance and contraceptives are offered free of charge.

Tuberculosis clinics
TB patients who do not have to be hospitalised, are treated.

Clinics for venereal diseases
Venereal diseases are diagnosed and treated here. (5)

5.2 Building regulations: – Inspectors must ensure adherence to building regulations and compliance with requirements for space, air, light ventilation and drainage.

Sanitation – where sanitation is not regulated 100%, there is breeding ground for diseases. In bigger towns and in cities sewerage is controlled by municipalities. Many places make use of septic tanks which can be emptied by pumps. In smaller places, the night car and pail method is used. Many people use the nearest bush because they have no sanitation provision; luckily, sunlight destroys micro-organisms.

Water is a commodity which has to be controlled strictly. There must be enough water and the water must be clean. The most important disease which may be contracted through contaminated water – stagnant water – is typhoid fever. Water must be examined continuously for the presence of bacteria. Water is cleansed by the filtration process through sand and the addition of chemicals. Reservoirs have to be examined regularly for the presence of dead animals, birds, rodents and people.

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Food supplies must be controlled thoroughly, especially milk, meat, vegetables and fruit. Cows and the staff who handle the cows and their milk, must be examined regularly for diseases like tuberculosis, typhoid fever, syphilis and anthrax. The handling of milk must take place in the most hygienic circumstances. In cities only pasteurised milk is allowed. In cases where milk is not pasteurised, it should be boiled before use - especially before it is given to babies and children. The ingredients of milk which are destroyed in the boiling process have to be complemented synthetically. Tuberculosis is mostly spread by milk. Abattoirs and meat storage places have to be checked regularly. Tapeworms, especially, but also other diseases, are spread by rotten meat. The markets for fruit and vegetables must be monitored regularly; also cafe's and shops which handle perishable products.

Refuse removal deserves meticulous attention. Refuse products of hospitals must be burnt. Other refuse products are dumped into ditches or lower areas and then soil is strewn over it so that it can be left to rot.

Extermination of rodents and insects is a very important health regulation. Mice, rats, flies, mosquitoes, lice, bedbugs, fleas, cockroaches and ticks must be destroyed continuously. (6)

5.3
- Enteric fever
- Typhoid fever
- Dysentery
- Tuberculosis
- Venereal diseases
- Pest; plague
- Leprosy
- Diseases caused by meningococcus
- Brucellosis
- Anthrax
- Typhus
- Small pox: a certificate of vaccination is required legally
- Rabies: avoid wild rodents as pets
- Poliomyelitis
- Yellow fever: tropical areas
- Malaria
- Bilharzia: parasites occur in snails in fresh water (Any 5 × 1) (5)

5.4
- Very rare, thanks to immunisation being legally binding
- Blisters form over the whole body
- Permanent lesions
- All contacts must be immunised
- Vaccine must be kept in a refrigerator and it must be replaced every two months (Any 4 × 1) (4)

[20]

TOTAL SECTION B: 60
GRAND TOTAL: 100

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