**KENYA MEDICAL TRAINING COLLEGE – NYAMIRA**

**END OF YEAR TWO SEMESTER ONE EXAMINATION**

**SEPTEMBER 2014 KRCHN CLASS (PRE-SERVICE)**

**NEUROLOGY EXAMINATION**

DATE: …………………… TIME:…………………..

**INSTRUCTIONS**

1. Read the questions carefully and answer only what is asked.
2. Enter your examination number and question number on each page used.
3. ALL questions are compulsory.
4. For part 1 (MCQs), write the answer in the spaces provided on the answer booklet and each MCQ is one (1) mark.
5. For Part 2 (SHORT ANSWER QUESTIONS), answer the questions following each other.
6. For Part 3 (LONG ANSWER QUESTIONS), answer to each question MUST start on a separate page.
7. Omission of and or wrong numbering of a question or part of the question will result in 10% deduction of the marks scored from the relevant part.
8. Do NOT use a pencil.
9. Mobile phones are NOT allowed in the examination hall.

For Examiner:

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| --- | --- | --- | --- | --- |
| **MCQS** | **SAQS** | **LAQS 1** | **LAQS 2** | **TOTAL** |
|  |  |  |  |  |

**PART ONE: MCQS (MULTIPLE CHOICE QUESTIONS) NEUROLOGY– 10 MARKS**

Q.1. The autonomic nervous system:

1. Controls the parasympathetic functions of the body.
2. Causes a decrease in the heart rate.
3. Is the involuntary part of the nervous system.
4. Its functions are not initiated in the brain.

Q.2. Which of the following best describes depressed fracture of the skull:

1. Bone fragments are embedded into the tissue of the brain.
2. Are splintered or multiple fracture lines.
3. Is a break in the continuity of a bone.
4. Is a fracture of the base of the skull.

Q.3. In status epilepticus, anticonvulsant therapy is considered to prevent:

1. Vascular collapse and cerebral anoxia.
2. Hyperpyrexia and voluntary contractions.
3. Death and drug toxicity.
4. None of the above.

Q.4. One of the leading theory held by researchers is that over excitation of nerve cells by the neurotransmitter glutamate leads to all cell injury and neuronal degeneration. This could be a possible cause of which neurological problem?

1. Meningitis.
2. Brain tumours.
3. Peripheral neuritis.
4. Disseminated sclerosis.

Q.5. Glasgow coma scale is used to assess:

1. A patient’s response to motor.
2. A patient’s response to pain.
3. A patient’s response to stimuli.
4. A patient’s spontaneous response to eye opening.

Q.6. Which cranial nerve, when damaged by process of inflammation causes Bell’s palsy:

1. 8th cranial nerve.
2. 5th cranial nerve.
3. 6th cranial nerve.
4. 7th cranial nerve.

Q.7. Common causes of intercranial haemorrhage are:

1. Circular aneurysm and severe headache.
2. Diffused axomal injury and coagulopathies.
3. Trauma and rupture of aneurysm.
4. Complications of anticoagulant therapies and haematoma.

**PART ONE: MCQS (MULTIPLE CHOICE QUESTIONS) NEUROLOGY– 10 MARKS**

Q.8. In secondary head injury, any bleeding within the skull (which is a rigid closed compartment) increases the volume of contents within a container of fixed size and subsequent displacement of the brain. This may lead to restriction of blood flow to the brain, hence decreasing waste removal and oxygen delivery. What will be the resultant effect to the cells of the brain?

1. They may become anoxic and cannot metabolize property producing infarction, ischaemia.
2. Oxygen delivery is increased in response to the dying brain.
3. Brain cells dies leading to increased intercranial pressure.
4. Cells within the structures of the skull leads to chemical changes associated with direct trauma and hence cerebral oedema.

Q.9. Which of the following diagnostic procedures may show arterial fibrillation in a patient with cerebrovascular accident (CVA)?

1. Magnetic resonance imaging (MRI).
2. Computed tomography (CT) scanning.
3. Cardiac monitor.
4. Cerebral angiography.

Write true or false for Q.10.

Q.10. Vascular disorders of the brain, often called strokes, disrupts the flow of blood to the brain resulting in a lesion called an infarct.

**PART TWO: SHORT ANSWER QUESTIONS – NEUROLOGY – 20 MARKS**

Q.1. (a) Differentiate concussion from contusion. 2 marks

(b) Draw a well labelled diagram showing the flow of cerebrospinal fluid

(use arrows) 4 marks

(c) Define the following terms:

1. Hyper oxia.
2. Peripheral neuritis. 2 marks

Q.2. MaryAnne has been brought to your health facility unconscious (deep coma), by a good Samaritan. One of the aims of neurological assessment is to find out her response to stimuli, and you to use Glasgow coma scale (GCS) tool.

1. Define Glasgow coma scale. 1 mark
2. Explain all the three steps you will follow I order to give a score range

for MaryAnne. 10 marks

1. State the possible score range for MaryAnne after your assessment. 1 mark

**PART THREE: LONG ANSWER QUESTIONS – NEUROLOGY – 22 MARKS**

Q.1. Hesbon is 70 years old. He complains of headache although not always present, dizziness, ataxia and staggering gait. On neurological assessment, the manner in which symptoms evolve suggests a brain tumour.

1. Define brain tumor. 1 mark
2. Draw a well labelled diagram showing the meninges of brain. 4 marks
3. State five (5) types of brain tumours. 5 marks

Q.2. Cerebrovascular accident (CVA) is considered an emergency.

1. Name three other terms that refers to cerebrovascular accident (CVA). 1 mark
2. Explain the role of arterial fibrillation in cerebrovascular accident. 2 marks
3. State four (4) risk factors to cerebrovascular accident. 2 marks
4. Explain the specific role of a nurse in the management of patients with

cerebrovascular accident. 5 marks

1. Name one assessment data, its nursing diagnosis, nursing interventions and

possible evaluation as part of individualized care for patients with cerebrovascular accident. 2 marks