



KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2016/2017

**SECOND SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF
MEDICINE, PHARMACY / COMPLIMENTARY ALTERNATIVE MEDICINE
HSU 100: BASIC LIFE SUPPORT AND EMERGENCY CARE**

DATE: MONDAY 22ND MAY 2017

TIME: 11.00 A.M. - 1.00 P.M.

INSTRUCTIONS

1. Answer all questions in section A, B and C
2. Answer section A and B in this question sheet
3. Answer section C in the answer booklet provided

SECTION A

MULTIPLE CHOICE QUESTIONS - CIRCLE THE SINGLE BEST ANSWER

1. What is the recommended depth of compressions for an infant victim?
 - A. At least one fourth the depth of the chest, approximately 2.5 cm (1 inch)
 - B. At least one third the depth of the chest, approximately 4 cm (1.5 inches)
 - C. At least one half the depth of the chest, approximately 5 cm (2 inches)
 - D. At least two thirds the depth of the chest, approximately 8 cm (3 inches)
2. What should you observe when trying to determine if rescue breaths for an infant victim are? effective?
 - A. Visible rise of the stomach with each rescue breath
 - B. Visible rise of the chest with each rescue breath
 - C. Complete compression of the ventilation bag
 - D. Air leaking around the ventilation mask

3. What is the compression-ventilation ratio for 2-rescuer infant CPR?
- A. 5:1
 - B. 15:2
 - C. 20:2
 - D. 30:2
4. What is the preferred technique for providing chest compressions during 2-rescuer CPR for an infant?
- A. the 2 thumb—encircling hands technique
 - B. The 2-finger technique
 - C. The 1-hand technique
 - D. The 2-hand technique
5. What is the best action to relieve severe choking in a responsive infant?
- A. Kneel behind the infant and perform abdominal thrusts (perform the Heimlich maneuver).
 - B. Give 2 breaths, repositioning the airway after each breath.
 - C. Begin cycles of 5 back slaps, followed by 5 chest thrusts.
 - D. Start CPR immediately.
6. Which victim requires CPR?
- A. A victim who is unresponsive with no normal breathing and no pulse
 - B. A victim who is unresponsive but is breathing adequately
 - C. A victim with a pulse who is having trouble breathing
 - D. A victim with chest pain and indigestion
7. When is it appropriate to move an adult victim who needs CPR?
- A. When help is more than 15 minutes away from the scene
 - B. When an adult victim is in a dangerous environment
 - C. To locate the AED when one is not available
 - D. As soon as the adult is found to be in arrest
8. High-quality CPR includes starting chest compressions within how many seconds after recognition of cardiac arrest in victims of all ages?
- A. 10 seconds
 - B. 15 seconds
 - C. 20 seconds
 - D. 30 seconds

9. What is the BEST method of opening the airway of an unresponsive victim when you do not suspect cervical spine injury?

- A. Give abdominal thrusts and then sweep out the mouth.
- B. Use a mask while giving breaths to the victim.
- C. Use the tongue lift–finger sweep.
- D. Use the head tilt–chin lift.

10. Which technique is not recommended for a single rescuer to provide breaths during CPR?

- A. Bag-mask device
- B. Mouth-to-barrier device
- C. Mouth-to-mask technique
- D. Mouth-to-mouth technique

11. How does complete chest recoil contribute to effective CPR?

- A. Reduces rescuer fatigue
- B. Reduces the risk of rib fractures
- C. Increases the rate of chest compressions
- D. Allows the heart to refill with blood between compressions

12. To reduce fatigue during CPR, how often should compressors switch roles?

- A. After every cycle of compressions and breaths
- B. After every 3 cycles of compressions and breaths
- C. After every 5 cycles of compressions and breaths
- D. After every 8 cycles of compressions and breaths

13. What is the recommended compression rate for performing CPR on a victim of any age?

- A. About 60 per minute
- B. About 80 per minute
- C. At least 100 per minute
- D. At least 120 per minute

14. Why are chest compressions important?

- A. They pump blood to the rest of the body.
- B. They increase air flow into the lungs.
- C. They prolong asystole.
- D. They stimulate spontaneous ventilation.

15. When should you deliver a shock from the AED?

- A. After checking for a carotid pulse
- B. After the placement of an advanced airway
- C. After completing 2 cycles of compression and breaths
- D. After the AED advises a shock, charges, states a "clear the victim" message, and prompts me to push the SHOCK button

16. What is the best way to relieve severe choking in a responsive adult?

- A. Start CPR immediately.
- B. Perform abdominal thrusts.
- C. Give 5 back slaps, followed by 2 breaths.
- D. Give 2 breaths, repositioning the airway after each breath.

17. What is the recommended compression-ventilation ratio for 2-rescuer child CPR?

- A. 5:1
- B. 15:2
- C. 20:2
- D. 30:2

18. What size AED pads should be used for a child less than 8 years of age?

- A. Infant pads may be used if pediatric pads are not available.
- B. Adult pads may be used, but they should be cut in half before application.
- C. Only 1 adult pad should be used.
- D. Adult pads/dose may be used if pediatric pads/dose attenuator are not available.

19. A choking adult becomes unresponsive while you are doing abdominal thrusts for severe choking. What should you do next?

- A. Perform abdominal thrusts.
- B. Begin CPR.
- C. Activate the emergency response system.
- D. Administer back slaps.

20. Where is the brachial pulse located?

- A. On the side of the neck, near the trachea
- B. On the inside of the upper leg, near the groin
- C. On the outside of the lower arm, near the wrist
- D. On the inside of the upper arm, between the elbow and the shoulder

SECTION B – SHORT ANSWER QUESTIONS

Answers all 8 questions in this question paper in the space provided. (5 marks each).

1. You are in a team that is drafting policies for your county government. List various types of burns and their causes.
2. The factories act in Kenya requires mitigation against fires. List the different types of fire extinguishers and specific preferred use.

3. You are interning with the NTSA KENYA at a road block and as a healthcare worker you are asked to check on the first aid box.
 - a. What is a first aid box and where is it found in a vehicle.
 - b. List 10 universally accepted contents of the first aid kit.

4. You have just witnessed a person fall off from a "Boda boda" at the Thika super highway, he brushes himself off the dust and twigs, tells you he is okay and wants to go home. You suspect he has internal bleeding.
 - a. State any 5 symptoms of suspected internal bleeding.
 - b. State any 5 signs of internal bleeding

5. Describe any five ethical principles that guide a healthcare professional's actions when in a resuscitation situation.

6. Outline how a healthcare professional would assess the level of consciousness in a two year old child.

7. You are having lunch at the cafeteria and you notice a fellow student holding his neck with both hands and unable to cough. Indicate the appropriate rescue response you would use to help the victim.

8. JKIA Nairobi Kenya has just been upgraded to category one status by the federal aviation authority. You are a healthcare worker within its premises, please expound on the following:
- a. Describe the AED (Automated Electrical Defibrillator) machine
 - b. List any five locations that are recommended to have a AED machine

SECTION C – LONG ANSWER QUESTIONS.

Answer all questions on the answer booklet provided (10 marks each)

1. (A) Differentiate between disaster, emergency and catastrophe (4 MARKS)
(B) Explain the phases of disaster management. (6 MARKS)
2. Explain the five links in the adult chain of survival and the significance and justification of each stage. (10 marks)
3. You are in hurry rushing to meet a friend and find a person lying under a tree at 1700 hrs around KU Campanile after being stung by bees. Describe your **approach and sequence of events** you would undertake to help this particular person.
4. You have gone home to attend to an uncle suspected to have suffered a stroke.
 - a. State 5 symptoms of stroke (2.5 MARKS)
 - b. State 5 signs of stroke (2,5 MARKS)
 - c. Describe the process you would use to take the person to hospital. (5 MARKS)