# FMST STUDY GUIDE



# **INTRODUCTION**

The purpose of this guide is to provide a structured way to study the material presented in class. Research shows that students remember better when they take effective notes, and when they are able to critically reflect on the material outside of class. The homework questions in this guide are meant to help you focus on key concepts in the course, and will help you prepare for both written and performance exams.

This guide should not be your only tool from which to study. There are many different types of learners, so consider what you find to be your own best method for learning. You can make flash cards, design your own test questions, or quiz a classmate to help you identify areas where you may need to focus and spend extra time.

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# **Homework Questions: Marine Corps History**

- 1. What was the significance of the Belleau Wood?
- 2. When and where was the Marine Corps founded?
- 3. Who is the "Grand Old Man of the Marine Corps"?
- 4. What was the significance of the battle of Nasiriyah?
- 5. Who was the Marine Corps' first enlisted woman?
- 6. In which battle were Marines immortalized from the now famous photograph taken of the second flag raising incident on Mount Suribachi?

#### Homework Questions: USMC Organizational Structure and Chain of Command

- 1. How many standing Marine Expeditionary Forces are there? Where are they located?
- 2. Explain the difference between the Service and Operational chains of command?
- 3. Explain the four broad categories of the Marine Corps?
- 4. What are the four core elements of the Marine Air Ground Task Force (MAGTF)? Explain the roles of each element?
- 5. What are the four types of MAGTF's? Explain the differences between them?

# **Homework: Traits and Principles of Marine Corps Leadership**

- 1. Define the Marine Corps 14 Leadership Traits? Remember the acronym JDIDTIEBUCKLE:
- 2. What are the Marine Corps 11 Leadership Principles?

#### **Homework Questions: Individual Combat Equipment**

- 1. When considering shelter site selection, we use the acronym BLISS as a guide. What does this acronym mean?
- 2. Describe the purpose of the Load Bearing Vest?
- 3. Explain the process of cleaning and caring for combat equipment?
- 4. What are the different types of field expedient shelters?

# **Homework Questions: Code of Conduct and the Rights of POW's**

- 1. Define the purpose of the Code of Conduct.
- 2. What are the six articles of the code of conduct?
- 3. Explain the origin and purpose of POW rights.
- 4. What are the responsibilities of a POW?
- 5. Are medical personnel considered POW's or retained personnel under the Articles of the Code of Conduct?

# **Homework Questions: Recognize Combat Stress Disorders**

- 1. Define operational and combat stress?
- 2. What are the "functions" of the OSCAR team members?
- 3. What are the five COSC core leadership functions?

- 4. What are the four zones within the Operational Stress Continuum?
- 5. What are the seven C's of stress first aid?

#### **Homework Questions: M16/M4**

- 1. What are the characteristics of the M16/M4 Service Rifle?
- 2. Describe the difference between weapons condition 3 and condition 1
- 3. What product is used to clean the service rifle?

# **Block One Introduction to the USMC Exam Review**

**NOTE:** The following questions are offered for review purposes. This is **NOT** intended as a sole source of test preparation. Remember all test questions are based on an ELO and any ELO can be used to create a test question.

- 1. A MEF is commanded by what ranking officer?
- 2. What year was the Marine Corps founded?
- 3. What are the characteristics of weapon condition four of the M16/M4 service rifle?
- 4. What is combat stress?
- 5. When was the Code of Conduct promulgated?
- 6. On which side of the collar, right or left, is the rank insignia worn for Navy personnel?
- 7. Who is the most highly decorated Marine in history?
- 8. What is the maximum effective range of fire for a M4 semiautomatic service rifle?
- 9. If a person has more than one warfare device, how far apart are they worn on the MCCUU?
- 10. Commanders of combatant commands come under which chain of command?
- 11. What are the four core elements of a MAGTF?
- 12. When was the battle of Guadalcanal?
- 13. What is the maximum effective range of individual/point targets of the M4 service rifle?
- 14. Who was in the battle of Nawa?
- 15. What is the maximum effective range of individual/point targets of the M16 service rifle?
- 16. Where is 2nd Marine Aircraft Wing (2nd MAW) geographically located?
- 17. What is the approximate size of a MEF?
- 18. What are the four items of information a POW is bound to give if captured?
- 19. A leader who avoids profane and vulgar language displays what leadership trait?
- 20. How far from the edge of the collar is the collar device worn?
- 21. An E-8 in the Marine Corps who is a technical expert is a \_\_\_\_\_.
- 22. Who is the most senior officer of the Marine Corps?
- 23. When was the Marine Corps Women's Reserve established?
- 24. What are the four broad categories of the Marine Corps?
- 25. The certainty of proper performance of duty is the definition of which Marine Corps leadership trait?
- 26. What are the characteristics of the M16/M4 service rifle?
- 27. What is the Marine Corps equivalent to a Navy Commander?

# **Homework Questions: Dehydration**

- 1. List predisposing factors for dehydration.
- 2. List signs and symptoms of dehydration.
- 3. Describe how to rehydrate an individual.
- 4. Describe preventive measures for dehydration casualties.
- 5. Define hyponatremia.

#### **Homework Questions: Heat Injuries**

- 1. List two chronic and two transient predisposing factors associated with heat injuries.
- 2. List five signs or symptoms of heat exhaustion.
- 3. Name 3 ways to prevent heat injuries.
- 4. List and the three methods of cooling a patient suffering from a heat injury.

# **Homework Questions: Cold Injuries**

- 1. Explain the effect that age and rank have on an individual's chance for developing hypothermia.
- 2. List the symptoms for Chilblains.
- 3. List three signs or symptoms of Moderate Hypothermia.
- 4. Define the acronym C.O.L.D.

# **Homework Questions: Care of the Feet**

- 1. Describe the appropriate treatment for large blisters.
- 2. Describe the difference between a corn and a callus.
- 3. List the signs and symptoms of plantar fasciitis.
- 4. "March Fracture" generally involves which two bones?

# **Homework Questions: Water Purification**

- 1. List the three factors associated with selecting a water source.
- 2. Of the four sources of water, which is best suited for individual use?
- 3. What are the drawbacks to using boiling as a method of decontamination?
- 4. What is the total time needed to disinfect one standard canteen of water using iodine tablets?

#### **Homework Questions: Field Waste**

- 1. List the four types of waste.
- 2. How far should latrines be place away from...?
- 3. Describe a burn-barrel latrine.
- 4. What are the two devices used for liquid waste disposal?
- 5. Describe a garbage pit.
- 6. Give three requirements when using incinerators.

# **Homework Questions: Envenomation**

- 1. Describe the difference between a hemotoxin and a neurotoxin
- 2. Identify three characteristics of Pit Vipers.
- 3. Name four signs or symptoms of an Elapinae bite.
- 4. What is the most definitive care for a venomous snake bite?
- 5. Describe the treatment for a bee/wasp sting.
- 6. List three signs or symptoms of scorpion envenomation.
- 7. What are the two medications used to treat anaphylaxis? Which is the most valuable for severe reactions?

# **Block Two Preventative Medicine Review Questions**

**NOTE:** The following questions are offered for review purposes. This is **NOT** intended as a sole source of test preparation. Remember all test questions are based on an ELO and any ELO can be used to create a test question.

- 1. A chronic fungal infection of the feet would be known as what?
- 2. What are the most common causes of ingrown toenails?
- 3. What are the characteristics and examples of the Elapinae family of snakes?
- 4. What are the four types of waste?
- 5. What are the causes of blisters?
- 6. What causes exertional hyponatremia?
- 7. What are the stages of hypothermia?
- 8. What are the predisposing factors of dehydration?
- 9. What are the physiological (host) predisposing factors associated with heat injuries?
- 10. What is the normal range of the body's temperature?
- 11. What are the predisposing factors of cold injuries?
- 12. What is the total time needed to disinfect a canteen using iodine tablets?
- 13. What are the characteristics and examples of the Colubrinae family of snakes?
- 14. What is the primary device for human waste disposal when troops are on the march?
- 15. What are the four sources of water?
- 16. Muscle cramps and tenderness in the extremities and abdomen, moist, pale, and warm skin, and a normal or slightly elevated core temperature are signs and symptoms of what?
- 17. What is the maximum amount of fluids you should drink per day?
- 18. What is plantar fasciitis?
- 19. Which heat injury is a severe, life-threatening condition; a true medical emergency?
- 20. What are the environmental factors that contribute to cold injuries?
- 21. What are the two methods of water disinfection?
- 22. What are the characteristics of the Hydrophinnae family of snakes?
- 23. What are the signs and symptoms of Black Widow spider bites?
- 24. Why are cat holes immediately covered after use?
- 25. What are the three classification levels of dehydration?
- 26. What are the causes of heat exhaustion?
- 27. What is the most important prevention measure for managing heat injuries?
- 28. Where does Chilblains (Pernio) usually occur?

- 29. What does the acronym COLD stand for?
- 30. What is the cause of Immersion foot (Trench foot)?
- 31. What are the five colored flags of the heat condition flag warning system?
- 32. What are the characteristics and examples of the Crotalinae family of snakes?
- 33. When treating snake bites, what are the common DON'Ts?
- 34. What causes anaphylactic shock?
- 35. What type of bee/wasp can only sting once and why?

# **Homework Questions: Field Communication**

- 1. List the nine positions of the Function Switch, and their purpose.
- 2. How many single channel frequencies can be selected in the Single Channel mode?
- 3. What does it mean when the squelch is switched to the "on" position?
- 4. What happens to the memory in a SINCGARS if it is turned off for more than 5 seconds?
- 5. Define the term "over" as it relates to Field Communication.
- 6. Provide the phonetic term for the following letters:

# **Homework Questions: 5 Paragraph Order**

- 1. A warning order must consist of how many paragraphs? What are they?
- 2. Define the acronym SMEAC?
- 3. What questions should be answered in the "M" portion of SMEAC?
- 4. Under which paragraph would you find information about medical support?
- 5. What are the minimum required paragraphs for a Fragmentation Order?

# **Homework Questions: Individual Movement Techniques**

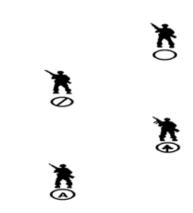
- 1. List the different types of low silhouette movement?
- 2. List the different types of rushes?
- 3. Explain the difference between Fire and Movement and Fire and Maneuver?
- 4. Explain the difference between cover, concealment and camouflage?

# **Homework Questions: Patrolling**

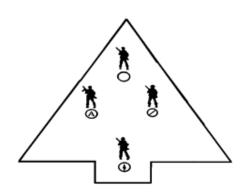
- 1. The acronym R.A.C.E.S. is used when defining the different mission of a Combat Patrol. Explain the acronym R.A.C.E.S.
- 2. List the different types of Reconnaissance Patrols?
- 3. Describe the different organizational elements of Combat and Reconnaissance Patrols?
- 4. Describe the advantages and disadvantages of fire team column?
- 5. Describe the advantages and disadvantages of squad column?

6. Identify the following types of Fire Team Formations:





B. \_\_\_\_



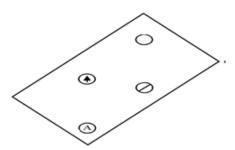
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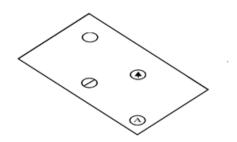
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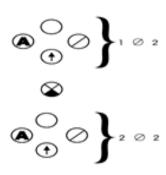


F.



7. Identify the following types of Squad Formations:

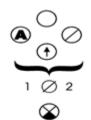
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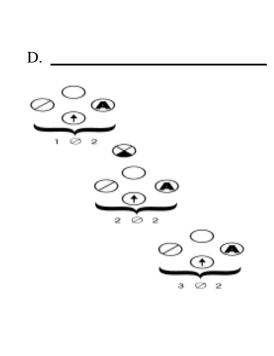




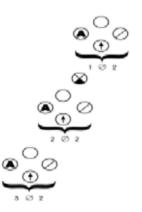




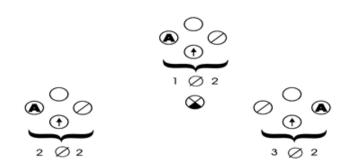




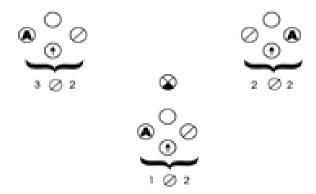
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G.



# **Homework Questions: Land Navigation**

- 1. List the three different types of north?
- 2. A six digit grid coordinate gets you to within how many meters of your intended target?
- 3. Identify the two methods for holding a compass?
- 4. Describe the purpose of a contour line?
- 5. List the different methods of measuring distance on a map?

# **Homework Questions: Improvised Explosive Device**

- 1. List the major components common to the different types IED's?
- 2. List the different types of IED's found on the battlefield?
- 3. Explain the different indicators one should be aware of to aid in the detection of IED's?
- 4. Explain the indicators and design of a PBIED?

# **Homework Questions: M-50 Field Protective Mask**

- 1. List the steps for assembling the M-50 Field Protective Mask.
- 2. List the main parts of the mask.
- 3. Identify the first step in donning your gas mask once you have received word of possible contamination?
- 4. Once the order is given to don mask, how long do you have to don your gas mask without a hood.

# **Homework Questions: MOPP**

- 1. List the five limitations of MOPP?
- 2. Are gloves worn or carried in MOPP Level 3?
- 3. Which types of agents can be detected by the M256A1 Kit?

4. Describe the relationship of the M256A1 kit and direct sunlight.

# **Homework Questions: Chemical Agent**

- 1. List four Nerve agents.
- 2. Describe how Blood agents affect the body.
- 3. List three Vomiting agents.
- 4. Describe the signs and symptoms associated with a lacrimator agent.

# **Homework Questions: Biological Agents**

- 1. List the signs and symptoms of inhalation anthrax.
- 2. When and where does the smallpox rash develop?
- 3. Identify three facts about Botulism.
- 4. List three actions to avoid during the "Post-Attack" phase of biological warfare.

# **Homework Questions: Radiological Agents**

- 1. What type of burst is most likely to be used against ground forces? What types of injuries would it likely cause?
- 2. Describe "flash blindness".
- 3. Describe the signs and symptoms of mild, severe, and deadly levels of radiation exposure.
- 4. Describe the recommended antibiotic therapy to be administered following radiation exposure.

# **Block Three Marine Corps Fundamentals Review Questions**

**NOTE:** The following questions are offered for review purposes. This is **NOT** intended as a sole source of test preparation. Remember all test questions are based on an ELO and any ELO can be used to create a test question.

- 1. What is the definition of a patrol?
- 2. What are the two types of patrols? Combat Patrols and Reconnaissance Patrols.
- 3. What are the components of the M-50 Field Protective Mask?
- 4. What are the four types of nuclear blasts?
- 6. What are the components of the manpack configuration (AN/PRC-119A)?
- 7. What are the parts of the compass?
- 8. What are the four safety rules of any weapon?
- 9. What are the characteristics of weapon condition one for the M16/M4 service rifle?
- 10. What is the purpose of a warning order?
- 11. What are the components of an IED?
- 12. What is the definition of Mission-Oriented Protective Posture (MOPP)?
- 13. What are the general groups of biological agents?
- 14. What are the limitations of MOPP?
- 15. What are the organizational elements of a patrol?
- 16. What are the missions of a combat patrol

- 17. What are the two settings of the COMSEC switch of the receiver-transmitter?
- 18. What information is contained in an warning order?
- 19. What information is contained in a fragmentation order?
- 20. What are the appropriate actions at halts to check for IEDs?
- 21. What are the missions of a reconnaissance patrol?
- 22. What is the purpose of a fragmentation order?
- 24. What is the purpose of a map?
- 25. What is the purpose of the 5 paragraph order?
- 26. What do you NOT want to do with suspected IEDs?
- 27. What are the colors used on a map?
- 28. What is the purpose of contour lines on a map
- 29. What is the acronym used for the five-paragraph order format?
- 30. In the phonetic alphabet, how is the letter W expressed?
- 31. What is the definition of an IED?
- 32. What are the four types of fire team formations?
- 33. What are the five types of combat squad formations?
- 34. What are the three types of special patrolling signals?
- 35. What is the treatment of blood agents?
- 36. What is the purpose of the M291 Skin Decontaminating kit?
- 37. What is Botulism and what causes it?
- 38. How is Ricin treated?

# **Homework Questions: Intro to TCCC**

- 1. What are the three goals of TCCC?
- 2. What is the first phase of TCCC?
- 3. What is the only life-saving intervention done during Care Under Fire?
- 4. Which phase of TCCC is Tactical Field Care?
- 5. List four priorities of Tactical Field Care.
- 6. What does TACEVAC encompass?
- 7. Which phase of TCCC has the most readily available medical equipment?

# **Homework Questions: Shock**

- 1. List the three major types of shock.
- 2. Describe the signs or symptoms associated with Class III Shock.
- 3. List the two medications administered to prevent a casualty from developing septic shock.
- 4. Which is more important for a casualty in shock, IV fluid or rapid transport? Why?

# **Homework Questions: Hemorrhage**

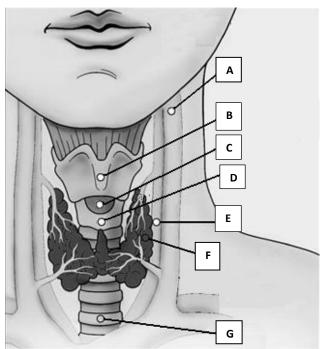
- 1. List four signs or symptoms of internal hemorrhage.
- 2. Identify the appropriate treatment for life threatening hemorrhage during "Care Under Fire".
- 3. Where on the extremities should a tourniquet NOT be placed?
- 4. During which phase of TCCC is the use of hemostatic agents authorized?

# **Homework Questions: Maintain Airway**

- 1. Identify the three sections of the pharynx.
- 2. Identify four types of mechanical airway obstructions.
- 3. Identify the two manual airway maneuvers.
- 4. Identify the contraindication for using a King LT airway.

# **Homework Questions: Cricothyroidotomy**

- 1. List the four indications for an emergency cricothyroidotomy.
- 2. List the ten steps in performing an emergency cricothyroidotomy.
- 3. Identify the three common complications from performing an emergency cricothyroidotomy.
- 4. What equipment is necessary to perform an emergency cricothyroidotomy?
- 5. Identify the anatomical landmarks below:



# **Homework Questions: Respiratory Trauma**

- 1. Identify five structures found in the mediastinum.
- 2. Identify the appropriate treatment for a simple rib fracture.
- 3. Identify the two serious consequences of a tension pneumothorax.
- 4. Identify the treatment for a sucking chest wound.
- 5. Identify the major landmarks used in performing a needle thoracentesis.
- 6. What are the indications for a needle thoracentesis? Contraindications?
- 7. List the equipment needed to perform a needle thoracentesis.
- 8. Explain the acronym IAP and what you are specifically looking for before making the decision to perform a needle thoracentesis.

- 9. Explain how and where to insert the needle/catheter.
- 10. Identify the possible complications of performing a needle thoracentesis.

# **Homework Questions: Abdominal Injuries**

- 1. Which quadrant contains the appendix?
- 2. Identify the solid organs and explain their significance.
- 3. Describe the appropriate treatment for an impaled object.
- 4. Describe the appropriate treatment for an abdominal evisceration.

#### **Homework Questions: Musculoskeletal Injuries**

- 1. List four examples of long bones.
- 2. What is the treatment for an avulsion injury?
- 3. Explain the definition of a sprain.
- 4. List four signs/symptoms of a fracture.
- 5. Describe a formable splint and an example.
- 6. What are the steps for splinting a fractured tibia or fibula?

# **Homework Questions: Head, Neck, and Face**

- 1. Identify the function of the Cerebellum.
- 2. List the six key points for treatment of a neck wound.
- 3. List the appropriate treatment for a single eye injury in a combat situation.

# **Homework Questions: Tactical Fluid Resuscitation**

- 1. What is the definition of an isotonic solution?
- 2. What is the preferred fluid resuscitation route for a patient with a normal level of consciousness and the ability to swallow?
- 3. What is the indication for using the intraosseous route?
- 4. What are the two most common crystalloids used in the treatment of shock?
- 5. What is the fluid of choice for a trauma patient in a tactical situation?
- 6. What gauge needle/catheter is used for IVs in the field setting?
- 7. Name three potential complications of IV therapy.
- 8. What is used as a reference point (landmark) for intraosseous placement?

#### **Homework Questions: Casualty Assessment**

- 1. List and briefly describe the three phases of Tactical Combat Casualty Care (TCCC).
- 2. Management of a compromised airway would be taken care of during what phase of TCCC?
- 3. Briefly describe why prevention of hypothermia is so important for the casualty.

# **Block Four Combat Medicine Review Questions**

NOTE: The following questions are offered for review purposes. This is NOT intended as a sole source of test preparation. Remember all test questions are based on an ELO and any ELO can be used to create a test question.

- 1. What are the anatomical landmarks for a cricothyroidotomy?
- 2. What are the components of the cardiovascular system?
- 3. What are the three basic groups that IV solutions fall into?
- 4. What causes a Flail Chest?
- 5. What are the three types of muscles in the body?
- 6. What major abdominal organs are in the Right Upper Quadrant?
- 7. What is the initial treatment of a life threatening extremity wound?
- 8. The skeletal portion of the thorax is formed by what?
- 9. What are the three types of head injuries?
- 10. What are the 10 procedural steps of performing an emergency cricothyroidotomy?
- 11. What are two serious consequences of Tension Pneumothroax?
- 12. What plasma substitute is the IV fluid of choice for volume replacement due to trauma in a tactical situation?
- 13. What is the Hemostatic agent used on the battlefield?
- 14. Which lung is larger than the other and is divided into three lobes?
- 15. What are the major types of facial injuries?
- 16. Treatment for strains and sprains includes R.I.C.E. What does R.I.C.E stand for?
- 17. What is the second leading cause of preventable death on the battlefield?
- 18. What is homeostasis?
- 19. Where should a tourniquet NEVER be placed?
- 20. What major abdominal organs are in the Right Lower Quadrant?
- 21. For which type of injury is a Modified Barton bandage used?
- 22. How much blood is in the average adult?
- 23. What is the difference between a strain, sprain, and dislocation?
- 24. What are the four classifications of hemorrhagic shock?
- 25. What major abdominal organs are in the Left Upper Quadrant?
- 26. What is the most common complication associated with emergency cricothyroidotomy?
- 27. What are the two types of bruising associated with closed skull injuries?
- 28. What anatomical landmarks are necessary in order to perform needle thoracentesis?
- 29. What are the classifications of abdominal organs?
- 30. What are the causes of cervical spine neck injuries?
- 31. What is Phlebitis?
- 32. What are the three phases of Tactical Combat Casualty Care?
- 33. What are the four types of bones in the body?
- 34. What is the definitive management of hemorrhagic shock?
- 35. What are the three types of distributive shock?
- 36. What are signs and symptoms of intrinsic cardiogenic shock?
- 37. What major abdominal organs are in the Left Lower Quadrant?
- 38. What are signs and symptoms of vasculature neck injuries?
- 39. What are the procedural steps for needle thoracentesis?

- 40. What is subcutaneous emphysema?
- 41. What causes an Open Pneumothorax (Sucking Chest Wound)?
- 42. What are the three types of hemorrhage and what are their distinguishing traits?

# **Homework Questions: Blast-Related Injuries**

- 1. Identify the five categories of blast effects on the human body?
- 2. Explain the pattern of injury consistent with a blast victim?
- 3. Identify the wounding effects fragmentation has on different parts of the body?
- 4. Describe the wounding effects of blast overpressure?

# **Homework Questions: Evaluate Traumatic Brain Injury**

- 1. What are the mandatory events requiring TBI evaluation?
- 2. What are the 2 categories of TBI?
- 3. What are the symptoms of mild TBI?
- 4. What does "IED" stand for?
- 5. What is the total score for a MACE exam?
- 6. What is the final data needed for the SIGACT report?

# **Homework Questions: Manage Burn Casualties**

- 1. Identify three characteristics of a second degree burn.
- 2. Using the Rule of Nines, estimate the body surface area affected for a patient with burns to the upper and lower back.
- 3. Using the Rule of Nines estimate the body surface area affected for a patient with burns to the chest, abdomen and right front arm.
- 4. Describe the appropriate treatment for burns, assuming no delay in casualty evacuation.

#### **Homework Questions: Triage**

- 1. What is the purpose of tactical triage?
- 2. List the three principle of triage.
- 3. Which category would each of the following injuries be triaged in:
  - 1) Airway Obstruction?
  - 2) Penetrating head trauma?
  - 3) Burns less than 20%?
  - 4) Small fractures?
- 4. Identify three priorities for mass casualty triage.
- 5. Using the triage algorithm, a patient with controlled hemorrhage that can obey simple commands, has a normal radial pulse, and is not in respiratory distress would be placed in which category?

# **Homework Questions: CASEVAC/TACEVAC**

1. Identify three different facilities that fall under the Forward Resuscitative Capability.

- 2. How many litter patients can be carried in an M-997 vehicle?
- 3. Describe the difference between the Urgent and Urgent Surgical categories.
- 4. In relation to the Nine Line evacuation request, what are "authorized brevity codes"?

# **Homework Questions: Aid Station**

- 1. Describe the Disease Non Battle Injury Report (DNBI).
- 2. List five requirements of the BAS in combat.
- 3. What types of items are found on a Table of Equipment (T/E)?
- 4. Which AMAL contains consumable supplies? List three.

# **Homework Questions: MOUT**

- 1. Describe the characteristics of the terrain associated with MOUT.
- 2. Identify the predominant factors that lead to combat stress casualties in a MOUT environment.
- 3. List three sources of infectious disease that are found in a MOUT environment.
- 4. Identify some events that may lead to complicated CASEVAC efforts in a MOUT environment.

# **Block Five Components of Field Medicine Review Questions**

**NOTE:** The following questions are offered for review purposes. This is **NOT** intended as a sole source of test preparation. Remember all test questions are based on an ELO and any ELO can be used to create a test question.

- 1. What is the mission of the aid station?
- 2. What are the six most commonly used methods of evacuation?
- 3. What are the four categories of tactical triage?
- 4. What are the degrees of burns?
- 5. What does the acronym "HEADS" stand for?
- 1. On the nine-line CASEVAC request, what information is on line six?
- 2. What is the definition of urban warfare (MOUT)?
- 3. Who are the two medical officers in an aid station group?
- 4. What are some of the potential health threats of MOUT?
- 5. What are the two methods used to estimate burn size?
- 6. First aid and emergency care is the primary objective of which taxonomy of care level?
- 7. Restorative and rehabilitative care is the primary objective of which taxonomy of care level?
- 8. Why are military blast casualties less likely to suffer injuries to the upper torso and head?
- 9. What are the responsibilities of the aid station while in garrison?
- 10. What is the most common form of injury in a terrorist bombing?
- 11. When dealing with blast injuries, how can the absence of ruptured tympanic membranes help rule out other injuries?
- 12. What are the 2 categories of TBI?
- 13. What burn injuries are considered critical regardless of depth or TBSA affected?
- 14. What are the six commonly used litters within the FMF?

- 15. What are the five CASEVAC priority levels?
- 16. What are the five basic sections of the BAS?
- 17. What are the two types of blast waves?
- 18. Why might an electrical burn be underappreciated?
- 19. What are the special requirements of casualty evacuation in MOUT?
- 20. What are the routine patient assessment procedures (sick call)?
- 21. What the symptoms of severe TBI?
- 22. When dealing with blast injuries, what is the most commonly affected body area?
- 23. What is the most common type of burn on the modern battlefield?

# **ANSWERS**

# **Block One**

# **Homework Questions: Marine Corps History**

- 1. What was the significance of the Belleau Wood? Marines fought one of their greatest battles in history at Belleau Wood, France during World War I. Marines helped crush a German offensive at Belleau Wood which threatened Paris. In honor of the Marines who fought there, the French renamed the area "the Wood of the Brigade of Marines." German intelligence evaluated the Marines as "storm troops"—the highest rating on the enemy fighting scale. In reference to the Marine's ferocious fighting ability, German troops called their new enemy "Teufelhunden" or "Devildogs," a nickname in which Marines share pride in to this day.
- 2. When and where was the Marine Corps founded? The Marine Corps was created on 10 November 1775 in Philadelphia, Pennsylvania at Tun Tavern by a resolution of the Continental Congress, which "raised two battalions of Marines." Captain Samuel Nicholas became the commander of these two battalions and is traditionally considered the first Commandant of the Marine Corps.
- 3. Who is the "Grand Old Man of the Marine Corps"? Archibald Henderson
- 4. What was the significance of the battle of Nasiriyah? The city of Nasiriyah was home to key bridges needed to cross the Euphrates River for the advancement of Coalition Forces throughout Iraq. In March 2003 RCT-1 with elements from the United Kingdom assaulted and seized control of the bridges. Once gained, Coalition Forces started a neighborhood sweep clearing Ba'athist fighters from the area.
- 5. Who was the Marine Corps' first enlisted woman? Private Johnson became the Marine Corps' first enlisted woman on 13 August 1918. Her enlistment was a reflection of the dramatic changes in the status of women brought about by the entry of the United States into World War I. Marine Reserve (F) was the official title by which the Marine Corps' first enlisted women were known. They were better known as "skirt Marines" and "Marinettes."
- 6. In which battle were Marines immortalized from the now famous photograph taken of the second flag raising incident on Mount Suribachi? The Battle of Iwo Jima

#### Homework Questions: USMC Organizational Structure and Chain of Command

- 1. How many standing Marine Expeditionary Forces are there? Where are they located? There are Three Standing MEFs Each MEF is comprised of a Command Element, Marine Division, Marine Aircraft Wing and Marine Logistics Group. They are Located as follows:
  - (1) I Marine Expeditionary Force (I MEF)
    - (a) 1st Marine Division (1st MARDIV) Camp Pendleton, CA

- (b) 3rd Marine Aircraft Wing (3rd MAW) Miramar, CA
- (c) 1st Marine Logistics Group (1st MLG) Camp Pendleton, CA

# (2) II Marine Expeditionary Force (II MEF)

- (a) 2nd Marine Division (2nd MARDIV) Camp Lejeune, NC.
- (b) 2nd Marine Airwing (2nd MAW) Cherry Point, NC.
- (c) 2nd Marine Logistics Group (2nd MLG) Camp Lejeune, NC.

# (3) III Marine Expeditionary Force (III MEF)

- (a) 3rd Marine Division (3rd MARDIV) Camp Butler, Okinawa, Japan.
- (b) 1st Marine Aircraft Wing (1st MAW) Futenma, Okinawa, Japan.
- (c) 3rd Marine Logistics Group (3rd MLG) Camp Butler, Okinawa, Japan.
- 2. Explain the difference between the Service and Operational chains of command? Service Chain of Command is used for things that are specifically inherent to the Marine Corps. Examples would include anything from purchasing new tanks to establishing rules for the use of tuition assistance. These topics, whether large or small, only affect the Marine Corps. The top portion of the service chain is listed below:
  - (1) President
  - (2) Secretary of Defense
  - (3) Secretary of the Navy
  - (4) Commandant of the Marine Corps

Operational Chain of Command is used to direct forces in conjunction with operational or functional missions. Often times this involves other services outside the Marine Corps. The Operational Chain of command break down is listed below:

- (1) President
- (2) Secretary of Defense
- (3) Commanders of Combatant Commands
- 3. Explain the four broad categories of the Marine Corps? The four broad categories of the Marine Corps are listed below:
- (1) Headquarters, U.S. Marine Corps Headquarters, US Marine Corps (HQMC) consists of the Commandant of the Marine Corps and those staff agencies that advise and assist him in discharging his responsibilities prescribed by law and higher authority. The Commandant is directly responsible to the Secretary of the Navy for the total performance of the Marine Corps. This includes the administration, discipline, internal organization, training requirements, efficiency, and readiness of the service.
- (2) Operating Forces "The heart of the Marine Corps." It comprises the forward presence, crisis response, and fighting power that the Corps makes available to US unified combatant

commanders. The Marine Corps has permanently established two combatant command-level service components in support of unified commands with significant Marine forces assigned: US Marine Corps Forces Atlantic (MARFORLANT) and US Marine Corps Forces Pacific (MARFORPAC).

- (3) Marine Corps Reserve (MARFORRES) The United States Marine Corps Reserve (MARFORRES) is responsible for providing trained units and qualified individuals to be mobilized for active duty in time of war, national emergency, or contingency operations, and provide personnel and operational tempo relief for active component forces in peacetime. MARFORRES, like active forces, consists of a combined arms force with balanced ground, aviation, and combat service support units. MARFORRES is organized under the Commander, MARFORRES. Their headquarters is located in New Orleans, LA.
- (4) Supporting Establishments The Marine Corps supporting establishments consist of those personnel, bases, and activities that support the Marine Corps Operating Forces.
  - (1) Marine Corps Recruiting Command
  - (2) Marine Corps Combat Development Command
  - (3) Marine Corps Systems Command
  - (4) Training Activities and Formal Schools
- 4. What are the four core elements of the Marine Air Ground Task Force (MAGTF)? Explain the roles of each element?
- (1) Command Element (CE). It is task organized to provide command and control capabilities (including intelligence and communications) necessary for effective planning, direction, and execution of all operations.
- (2) Ground Combat Element (GCE). Its mission is to execute amphibious assault operations and such operations as may be directed.
- (3) Aviation Combat Element (ACE). Its mission is task organized to provide a flexible and balanced aviation organization that is capable of providing the full range of aviation operations, without the requirement for pre-positioned support control, and logistical facilities.
- (4) Logistics Combat Element (LCE). It is a composite grouping of functional components that provides Logistics Combat Support above the organic capability of supported units to all elements of the MEF
- 5. What are the four types of MAGTF's? Explain the differences between them?
- (1) Marine Expeditionary Force (MEF)

Definition of Capabilities - The largest standing (Exists in peacetime and wartime) MAGTF, approximately 20,000 to 90,000 personnel. The MEF is the principal Marine Corps war fighting organization. It is capable of missions across the range of military operations, through

amphibious assault and sustained operations ashore in any environment. Commanded by a Lieutenant General or Major General

# (2) Marine Expeditionary Brigade (MEB)

Definition of Capabilities - This is a medium sized, approximately 3,000 to 20,000 personnel, Infantry reinforced, non-standing MAGTF that is task organized to respond to a full range of crisis, from forcible entry to humanitarian assistance. MEB's are not a standing force and formed only in times of need. An example is post 9/11; the 4th MEB and 2nd MEB were formed to respond to combat and peacekeeping contingencies in Afghanistan and Iraq. The MEB is commanded by a Brigadier General.

# (3) Marine Expeditionary Unit, Special Operations Capable (MEU/SOC)

Definition of Capabilities - The standard forward deployed Marine expeditionary organization. MEU (SOC) is task organized to be a forward deployed presence and designed to be the "First on the scene" force. MEU (SOC) is capable of a wide range of small scale contingencies to include non-combatant evacuation, clandestine recovery, maritime interdictions, specialized demolitions, tactical recovery of aircraft and/or personnel, gas/oil platform seizure, humanitarian/civic actions, and other military operations other than war. Approximately 1,500 to 3,000 personnel and commanded by a Colonel.

# (4) Special Purpose Marine Air-Ground Task Force (SPMAGTF)

Definition of Capabilities - The SPMAGTF is a non-standing MAGTF temporarily formed to conduct a specific mission. It is normally formed when a standing MAGTF is unavailable or inappropriate. Their designation derives from the mission they are assigned, the location in which they will operate, or the name of the operation in which they will participate. (i.e. SPMAGTF Somalia, Hurricane Katrina etc...)

# **Homework: Traits and Principles of Marine Corps Leadership**

# 1. Define the Marine Corps 14 Leadership Traits? Remember the acronym JDIDTIEBUCKLE:

Justice - Giving reward and punishment according to the merits of the case in question. The ability to administer a system of rewards and punishments impartially and consistently.

Judgment - The ability to weigh facts and possible courses of action in order to make sound decisions.

Dependability - The certainty of proper performance of duty.

Initiative - Taking action in the absence of orders.

Decisiveness - Ability to make decisions promptly and to announce them in a clear, forceful manner.

Tact - The ability to deal with others in a manner that will maintain good relations and avoid offense. More simply stated, tact is the ability to say and do the right thing at the right time.

Integrity - Uprightness of character and soundness of moral principles. The quality of truthfulness and honesty

Enthusiasm - The display of sincere interest and exuberance in the performance of duty.

Bearing - Creating a favorable impression in carriage, appearance, and personal conduct at all times.

Unselfishness - Avoidance of providing for one's own comfort and personal advancement at the expense of others.

Courage - Courage is a mental quality that recognizes fear of danger or criticism, but enables a Marine to proceed in the face of danger with calmness and firmness.

Knowledge - Understanding of a science or an art. The range of one's information, including professional knowledge and understanding of your Marines.

Loyalty - The quality of faithfulness to country, Corps, unit, seniors, subordinates and peers.

Endurance - The mental and physical stamina measured by the ability to withstand pain, fatigue, stress, and hardship.

#### 2. What are the Marine Corps 11 Leadership Principles?

- 1. Know Yourself and Seek Self Improvement
- 2. Be Technically And Tactically Proficient
- 3. Know Your People And Look Out For Their Welfare
- 4. Keep Your Personnel Informed
- 5. Set The Example
- 6. Ensure That The Task Is Understood, Supervised, and Accomplished
- 7. Train Your Marines And Sailors As A Team
- 8. Make Sound And Timely Decisions
- 9. Develop A Sense Of Responsibility Among Your Subordinates
- 10. Employ Your Command within its Capabilities
- 11. Seek Responsibilities and Take Responsibility

# **Homework Questions: Individual Combat Equipment**

- 1. When considering shelter site selection, we use the acronym BLISS as a guide. What does this acronym mean?
  - B Blend in with the surroundings.
  - L Low silhouette.
  - I Irregular shape.
  - S Small.
  - S Secluded location
- 2. Describe the purpose of the Load Bearing Vest? Sizeable Vest with MOLLE webbing used to configure ammunition pouches, grenade pouches, IFAK, and other items so that the individual may design load out for specific purposes. Can be adjusted to fit all sizes of Marines and Sailors.
- 3. Explain the process of cleaning and caring for combat equipment?
  - 1. Scrape dirt and dust from the item using a brush that will not cut the fabric.
  - 2. Hose or wash the item in a pail of water. Rinse thoroughly with clean water.
- 3. Do not use chlorine bleach, yellow soap, cleaning fluids, or solvents that will discolor or deteriorate the item.
- 4. Dry the item in the shade or indoors. Do not dry in direct sunlight, direct heat or open flame.
- 5. Do not launder or dry item in home or commercial washers and dryers. Do not attempt to dye or repair. Turn in for repair or replacement.
- 6. Remember, extremely dirty or damaged equipment can eventually fail to perform its intended function.
- 4. What are the different types of field expedient shelters?
  - 1. Tarp Lean-to
  - 2. Tarp Tent
  - 3. Two Man Tent

# Homework Questions: Code of Conduct and the Rights of POW's

1. Define the purpose of the Code of Conduct. As a member of the armed forces of the United States, you are protecting your nation. It is your duty to oppose all enemies of the United States in combat or, if a captive, in a prisoner of war compound. Your behavior is guided by the Code of Conduct, which has evolved from the heroic lives, experiences and deeds of Americans from the Revolutionary War to the Southeast Asian Conflict. Your obligations as a U.S. citizen and a member of the armed forces result from the traditional values that underlie the American experience as a nation. These values are best expressed in the U.S. Constitution and Bill of Rights, which you have sworn to uphold and defend. You would have these obligations-to your country, your service and unit and your fellow Americans-even if the Code of Conduct had never been formulated as a high standard of general behavior. The Code is not intended to provide guidance on every aspect of military life. For that purpose there are military regulations, rules of military courtesy, and established customs and traditions. The Code of Conduct is in no way

connected with the Uniform Code of Military Justice (UCMJ). The UCMJ has punitive powers; the Code of Conduct does not.

#### 2. What are the six articles of the code of conduct?

Article I - I am an American, fighting in the forces which guard my country and our way of life. I am prepared to give my life in their defense.

Article II - I will never surrender of my own free will. If in command, I will never surrender the members of my command while they still have the means to resist.

Article III - If I am captured I will continue to resist by all means available. I will make every effort to escape and to aid others to escape. I will accept neither parole nor special favors from the enemy.

Article IV - If I become a prisoner of war, I will keep faith with my fellow prisoners. I will give no information or take part in any action which might be harmful to my comrades. If I am senior, I will take command. If not, I will obey the lawful orders of those appointed over me and will back them up in every way.

Article V - When questioned, should I become a prisoner of war, I am required to give name, rank, service number, and date of birth. I will evade answering further questions to the utmost of my ability. I will make no oral or written statements disloyal to my country and its allies or harmful to their cause.

Article VI - I will never forget that I am an American, fighting for freedom, responsible for my actions, and dedicated to the principles which made my country free. I will trust in my God and in the United States of America.

3. Explain the origin and purpose of POW rights. The 1949 Geneva Conventions for the Protection of War Victims have been ratified by the United States and came into force for this country on 2 February 1956. Respectively, each of the Hague Conventions of 1899 and 1907 and each of the Geneva Conventions of 1864, 1906, and 1929 will, of course, continue in force as between the United States and such of the other parties to the respective conventions as have not yet ratified or adhered to the later, superseding convention(s) governing the same subject matter. Moreover, even though States may not be parties to, or strictly bound by, the 1907 Hague Conventions and the 1929 Geneva Convention relative to the Treatment of Prisoners of War, the general principles of these conventions have been held declaratory of the customary law of war to which all States are subject. For this reason, the United States has adopted the policy of observing and enforcing the terms of these conventions.

# 4. What are the responsibilities of a POW?

- 1. Every prisoner of war, when questioned on the subject, is bound to give only four items of information. Name, Rank, Service number (social security number), Date of birth Lawful obedience to rules and regulations
- 2. Responsibility to perform paid labor (As required). Must be: Labor that is not military in nature, not degrading, not dangerous, and not unhealthy

- 3. Responsibility to maintain military discipline, courtesy, and render honors.
- 5. Are medical personnel considered POW's or retained personnel under the Articles of the Code of Conduct? Retained personnel

# **Homework Questions: Recognize Combat Stress Disorders**

- 1. Define operational and combat stress? Changes in physical or mental functioning or behavior resulting from the experience of lethal force or its aftermath. These changes can be positive and adaptive or they can be negative, including distress or loss of normal functioning.
- 2. What are the "functions" of the OSCAR team members? Mentors, Extenders, and Mental Health Personnel
- 3. What are the five COSC core leadership functions? Strengthen, Mitigate, Identify, Treat, and Reintegrate
- 4. What are the four zones within the Operational Stress continuum? Green (READY), Yellow (REACTING), Orange (INJURED), Red (ILL)
- 5. What are the seven C's of stress first aid? Check, Cover, Calm, Connect, Competence, Confidence, and Continue

#### **Homework Questions: M16/M4**

- 1. What are the characteristics of the M16/M4 Service Rifle? The M16A4 Service rifle/M4 Service Carbine (M4 Service Carbine is the TO issue weapon for Corpsman),(see figures 1-3) They are a caliber 5.56mm, magazine-fed, gas-operated, air-cooled, shoulder-fired weapons that can be fired either in automatic three-round bursts or semiautomatic single shots as determined by the position of the selector lever.
- 2. Describe the difference between weapons condition 3 and condition 1. In weapon condition 1 there is a round in the chamber and in weapon condition 3 there is no round in chamber. Both conditions have magazine inserted and bolt forward with the weapon on safe.
- 3. What product is used to clean the service rifle? Cleaner Lubricant and Preservative (CLP) is the only authorized lubricant for the M16/M4 Carbine rifle.

#### **Block One Introduction to the USMC Exam Review**

- 1. A MEF is commanded by what ranking officer? Lieutenant General or Major General
- 2. What year was the Marine Corps founded? 1775

- 3. What are the characteristics of weapon condition four of the M16/ M4 service rifle?

  Magazine removed, Bolt forward, Chamber empty, Ejection port cover closed, weapon on safe
- 4. What is combat stress? Changes in physical or mental functioning or behavior resulting from the experience of lethal force or its aftermath. These changes can be positive and adaptive or they can be negative, including distress or loss of normal functioning.
- 5. When was the Code of Conduct promulgated? Aug 17, 1955
- 6. On which side of the collar, right or left, is the rank insignia worn for Navy personnel? Right side
- 7. Who is the most highly decorated Marine in history? Lewis B. "Chesty" Puller
- 8. What is the maximum effective range of fire for a M4 semiautomatic service rifle? 3600 meters
- 9. If a person has more than one warfare device, how far apart are they worn on the MCCUU? 1/8<sup>th</sup> inch above the 1<sup>st</sup> device
- 10. Commanders of combatant commands come under which chain of command? Operational Chain of Command
- 11. What are the four core elements of a MAGTF? Command Element (CE), Ground Combat Element (GCE), Aviation Combat Element (ACE), Logistics Combat Element (LCE)
- 12. When was the battle of Guadalcanal?7 August 1942
- 13. What is the maximum effective range of individual/point targets of the M4 service rifle? 500 meters
- 14. Who was in the battle of Nawa? 1st BN, 5th Marines
- 15. What is the maximum effective range of individual/point targets of the M16 service rifle? 550 Meters
- 16. Where is 2nd Marine Aircraft Wing (2nd MAW) geographically located? Cherry Point, NC
- 17. What is the approximate size of a MEF? 20,000 to 90,000 personnel
- 18. What are the four items of information a POW is bound to give if captured? Name, Rank, Service number (social security number), and Date of birth
- 19. A leader who avoids profane and vulgar language displays what leadership trait? Bearing

- 20. How far from the edge of the collar is the collar device worn? ½ inch
- 21. An E-8 in the Marine Corps who is a technical expert is a \_\_\_\_\_. Master Sergeant
- 22. Who is the most senior officer of the Marine Corps? Commandant of the Marine Corps
- 23. When was the Marine Corps Women's Reserve established? February 1943
- 24. What are the four broad categories of the Marine Corps? Headquarters, U.S. Marine Corps, Operating Forces, Marine Corps Reserve, Supporting Establishments.
- 25. The certainty of proper performance of duty is the definition of which Marine Corps leadership trait? Dependability
- 26. What are the characteristics of the M16/M4 service rifle? The M16A4 Service rifle/M4 Service Carbine (M4 Service Carbine is the TO issue weapon for Corpsman),(see figures 1-3) They are a caliber 5.56mm, magazine-fed, gas-operated, air-cooled, shoulder-fired weapons that can be fired either in automatic three-round bursts or semiautomatic single shots as determined by the position of the selector lever.
- 27. What is the Marine Corps equivalent to a Navy Commander? Lieutenant Colonel

#### **Block Two**

# **Homework Questions: Dehydration**

1. List predisposing factors for dehydration.

Alcohol consumption

Medications (especially for high blood pressure, colds or diarrhea)

Higher Body Mass Index/ Low level of physical fitness

Inadequate diet

Improper clothing

Medical Conditions (fevers, vomiting, diarrhea, heat rash or sunburn)

Age (Thermoregulatory capacity decreases with age)

Fatigue/lack of sleep

Lack of recent experience in a hot environment or improper acclimatization

2. List signs and symptoms of dehydration.

Less frequent urination and dark color urine

**Thirst** 

Fatigue

Light-headedness

Headaches

Dizziness

Dry skin, decreased turgor (see figure 1)

Confusion

Dry mouth and mucous membranes
Increased heart rate and breathing

- 3. Describe how to rehydrate an individual. Oral re-hydration drinking fluids usually relieves mild dehydration. IV fluids used for moderate to severe dehydration.
- 4. Describe preventive measures for dehydration casualties. Drink extra fluid before activity, take several fluid breaks per hour during activity, maintain a balanced diet, avoid diuretic beverages, and education of troops.
- 5. Define hyponatremia.

Exertional hyponatremia and water intoxication can occur when sodium and water loss in sweat results in dehydration and sodium depletion

# **Homework Questions: Heat Injuries**

- 1. List two chronic and two transient predisposing factors associated with heat injuries. Chronic: Fitness and Body Mass Index, Age, Medical Conditions, Previous History of Heat injury, Skin Trauma, Medications. Transient: Common Illness, Fever, Vomiting, Diarrhea, Poor Dietary and Fluid Intake
- 2. List five signs or symptoms of heat exhaustion. Frontal headache, Decreased urine output, Drowsiness, Nausea, Vomiting, Light-headedness, Anxiety, Fatigue, Irritability, Decreased coordination, Orthostatic hypotension, Moist, pale, clammy skin, Rectal temp usually below  $104 \square F$  (temp not always a reliable finding)
- 3. Name 3 ways to prevent heat injuries. Education of Personnel, Physical Conditioning and Health, Proper Water Intake, Proper Acclimatization, Proper Clothing, and Work Schedules
- 4. List and the three methods of cooling a patient suffering from a heat injury. Immersion, Direct Cooling, and Room Temperature Water Misting

#### **Homework Questions: Cold Injuries**

- 1. Explain the effect that age and rank have on an individual's chance for developing hypothermia. Most cold injuries are suffered by military personnel from 17-25 years of age. The exact reason is unknown although these troops are generally "front line" troops who experience more exposure and are generally less experienced dealing with the cold. Decreased incidence of cold injury among higher ranks is a reflection of a combination of experience, less exposure and receptivity to training.
- 2. List the symptoms for Chilblains. Usually occur several hours after exposure to cold, Appear as nodular plaques (patches on the skin), Intense pruritus (itching), Burning paresthesia (numbness)

- 3. List three signs or symptoms of Moderate Hypothermia. The patient will probably not complain of feeling cold, shivering will be absent and the LOC will be greatly decreased. Paradoxical undressing may be observed before the patient loses consciousness. The patient in this stage is at risk for lethal cardiac dysrhythmias.
- 4. Define the acronym C.O.L.D.
  - C Clean and free of oil and dirt
  - O Overheating, avoid
  - L Layer correctly
  - D Dry

# **Homework Questions: Care of the Feet**

- 1. Describe the appropriate treatment for large blisters. Wash the area around the blister with Betadine solution or alcohol pad. Drain as close to the edge of the blister as possible to allow for drainage, and then apply gentle pressure to the blister dome expelling the clear fluid. Apply moleskin (donut) to skin surrounding the blister, using tincture of benzoin as an adhesive. DO NOT PUT ANY ADHESIVE DIRECTLY ON THE BLISTER. Dust entire foot with foot powder to lessen friction and prevent adhesive from adhering to the socks. Monitor for signs and symptoms of infection
- 2. Describe the difference between a corn and a callus. A callus a thickening of the outer layer of skin, in response to pressure or friction that serves as a protective mechanism to prevent skin breakdown. A corn is similar to a callus except it involves a discrete pressure spot, typically over a bone, whereas a callus can form anywhere
- 3. List the signs and symptoms of plantar fasciitis. Tenderness along the medial fascia, Constant pain that is worse in the morning upon rising or after physical activity, Tearing and pulling sensation, and an altered gait
- 4. "March Fracture" generally involves which two bones? The second and third metatarsals.

#### **Homework Questions: Water Purification**

- 1. List the three factors associated with selecting a water source. Water Quantity, Water Quality, and Accessibility.
- 2. Of the four sources of water, which is best suited for individual use? Surface water
- 3. What are the drawbacks to using boiling as a method of decontamination? It does not provide for individual for residual disinfectant capabilities and should not be used to store large quantities of water.
- 4. What is the total time needed to disinfect one standard canteen of water using iodine tablets? 30 minutes

# **Homework Questions: Field Waste**

- 1. List the four types of waste. Human waste (black water), Liquid waste (grey water), Garbage and Rubbish
- 2. How far should latrines be place away from... the nearest water source? 100 feet food service areas? 100 yards berthing areas? 50 feet
- 3. Describe a burn-barrel latrine. The burn-barrel is a commonly used device for human waste disposal in the field. Best employed in areas where the water table is high or the ground does not permit digging. 8 seats required for 100 people.
- 4. What are the two devices used for liquid waste disposal? Soakage Pit and Evaporation beds
- 5. Describe a garbage pit. The preferred method of garbage disposal for short overnight stops. A standard four feet by four feet pit will service 100 people per day.
- 6. Give three requirements when using incinerators. Length of stay is expected to be over a week, rubbish is burned and buried. Barrel incinerators are commonly used and must be at least 50 yards and downwind from the camp.

# **Homework Questions: Envenomation**

1. Describe the difference between a hemotoxin and a neurotoxin.

Hemotoxin - toxin that destroys red blood cells, disrupts blood clotting, can severely damage internal organs and causes tissue degeneration.

Neurotoxin - toxin that damages, destroys or impairs nerve tissue and disrupts the brain function.

- 2. Identify three characteristics of Pit Vipers. Retractable fangs, heat sensing pit located below the nostril, large triangular shaped head, and slit-like pupils.
- 3. Name four signs or symptoms of an Elapinae bite. Stiffness, muscle aches, and spasms, Severe headache, blurred vision, and drowsiness, Moderate to severe pain to the affected limb, Nausea, vomiting, and diarrhea, Chills with rapid onset of fever, Respiratory paralysis and death
- 4. What is the most definitive care for a venomous snake bite? Anti-venom
- 5. Describe the treatment for a bee/wasp sting. Stingers should be removed immediately to prevent more venom from entering the victim. Remove the stinger by scraping across the skin with a knife blade or similar object. Do NOT use tweezers to grasp stinger, this only injects the remaining venom into the victim. Apply ice to the affected area, Apply Hydrocortisone Cream 1% to affected area BID (twice a day). Monitor for Anaphylaxis

- 6. List three signs or symptoms of scorpion envenomation. Erythema and edema, local pain and/or paresthesia (an abnormal touch sensation such as burning or prickling often in the absence of external stimulus) at site of sting. Cranial nerve dysfunction, blurred vision, wandering eye movements, hypersalivation, trouble swallowing, tongue twitching/spasms, problems with upper airway, and slurred speech. Somatic skeletal neuromuscular dysfunction jerking of extremity(ies), restlessness, and severe involuntary shaking that may be mistaken for a seizure.
- 7. What are the two medications used to treat anaphylaxis? Which is the most valuable for severe reactions?

Diphenhydramine Hydrochloride (Benadryl), a single injection of 25-50mg IM, used for skin allergies, urticaria and other mild anaphylactic reactions to allergens.

Epinephrine Injection - the most valuable drug for the emergency treatment of severe allergic reactions such as asthma attacks characterized by wheezing, dyspnea and inability to breathe. Other symptoms may include bronchoconstriction, sneezing, hoarseness, urticaria, erythema and pruritis.

# **Block Two Preventative Medicine Review Questions**

- 1. A chronic fungal infection of the feet would be known as what? Athletes Foot (Tinea Pedis)
- 2. What are the most common causes of ingrown toenails? Improper trimming of toenails and poor hygiene.
- 3. What are the characteristics and examples of the Elapinae family of snakes? Front, fixed, hollow fangs, and round pupils. Head width is proportionate to body size. Coral Snakes, Cobras, and Kraits.
- 4. What are the four types of waste? Human waste (black water), Liquid waste (grey water), Garbage, and Rubbish
- 5. What are the causes of blisters? Improperly conditioned feet, heat and moisture, improperly fitting boots and/or socks, friction and pressure.
- 6. What causes exertional hyponatremia? Sodium and water loss in sweat results in dehydration and sodium depletion.
- 7. What are the stages of hypothermia? Mild, moderate, and severe
- 8. What are the predisposing factors of dehydration? Alcohol consumption, medications (especially for high blood pressure, colds or diarrhea), higher body mass index, low level of physical fitness, inadequate diet, improper clothing, medical conditions (fevers, vomiting, diarrhea, heat rash or sunburn), age (thermoregulatory capacity decreases with age), fatigue/lack of sleep, lack of recent experience in a hot environment or improper acclimatization.

- 9. What are the physiological (host) predisposing factors associated with heat injuries? Fitness and body mass index, age, medical conditions, previous history of heat injury, skin trauma, and medications
- 10. What is the normal range of the body's temperature? 97.6 99.6 Degrees Fahrenheit
- 11. What are the predisposing factors of cold injuries? Fatigue, Age/Rank, Nutrition, Discipline, Training, Experience, Race/Geographic Origin, Dehydration, Medication, Tobacco/Caffeine/Alcohol, Environmental Factors, Activity.
- 12. What is the total time needed to disinfect a canteen using iodine tablets? 30 minutes
- 13. What are the characteristics and examples of the Colubrinae family of snakes? Fixed fangs in rear of mouth, egg-shaped head, and large eyes. Boomslang
- 14. What is the primary device for human waste disposal when troops are on the march? Cat hole
- 15. What are the four sources of water? Salt water, rain water, Surface water, and ground water
- 16. Muscle cramps and tenderness in the extremities and abdomen, moist, pale, and warm skin, and a normal or slightly elevated core temperature are signs and symptoms of what? Heat Cramps
- 17. What is the maximum amount of fluids you should drink per day? 12 canteens per day
- 18. What is plantar fasciitis? Plantar fasciitis is one of the most common foot problems. The plantar fascia's main function is to anchor the plantar skin to the bone, thus protecting the longitudinal arch of the foot. The plantar fascia is strained from overuse, causing pain along the sole of the foot, particularly where the fascia connects to the heel.
- 19. Which heat injury is a severe, life-threatening condition; a true medical emergency? Heat stroke
- 20. What are the environmental factors that contribute to cold injuries? Weather and temperature are predominant factors that will modify the rate of body heat loss. Freezing temperatures are not necessary for cold injury. Humidity affects the rate of freezing and nonfreezing injuries. Precipitation and wind also greatly accelerate body heat loss.
- 21. What are the two methods of water disinfection? Iodine tablets, chlorine bleach, micropur, and boiling
- 22. What are the characteristics of the Hydrophinnae family of snakes? Fixed fangs, flat paddle-like tail, most are brightly colored. Sea Snakes

- 23. What are the signs and symptoms of Black Widow spider bites? Initial pain is not severe, but severe local pain rapidly develops, Pain gradually spreads over the entire body and settles in the abdomen and legs, Weakness, Sweating, Excessive salivation. Rash may occur, Tremors, Nausea/vomiting, Respiratory muscle weakness combined with pain may lead to respiratory arrest. Anaphylactic reactions can occur but are rare, Symptoms usually regress after several hours and are usually gone in a few days.
- 24. Why are cat holes immediately covered after use? Single use hole, prevents exposure to other personnel.
- 25. What are the three classification levels of dehydration? Mild, moderate, and severe
- 26. What are the causes of heat exhaustion? Results from cardiac output that is insufficient to support the increased circulatory load caused by competing blood flow, reduced plasma volume and sweat induced depletion of salt and water.
- 27. What is the most important prevention measure for managing heat injuries? Education of personnel
- 28. Where does Chilblains (Pernio) usually occur? The extensor skin surface of the finger or any exposed skin surface
- 29. What does the acronym COLD stand for? Clean, overheating (avoid), layer, and dry
- 30. What is the cause of Immersion foot (Trench foot)? Prolonged exposure to wet and cold conditions or outright immersion of feet in water at 32-50° F. Condition can occur on hands due to damp or cold gloves.
- 31. What are the five colored flags of the heat condition flag warning system? White (78 F to 81.9 F), Green Flag (82 F to 84.9 F), Green Flag (82 F to 84.9 F), Red Flag (88 F to 89.9 F), Black Flag (90 F and above)
- 32. What are the characteristics and examples of the Crotalinae family of snakes? Retractable fangs, heat sensing pit located below the nostril, large triangular shaped head, and slit-like pupils. Rattlesnake, saw-scaled viper, water moccasin, copperhead, and habu.
- 33. When treating snake bites, what are the common DON'Ts?
  - DO NOT cut or incise the bite site.
  - DO NOT apply ice or heat to the bite site.
  - DO NOT apply oral (mouth) suction.
  - DO NOT remove dressings/elastic wraps.
  - DO NOT try to kill snake for identification as this may lead to others being bitten.
  - DO NOT have the victim eat or drink anything.

34. What causes anaphylactic shock?

Exposure to an allergen that causes hypersensitivity reaction. Such exposure can be introduced to the body by the following:

Injections (tetanus antitoxin, penicillin)

Stings (honeybee, wasp, yellow jacket, hornet)

Ingestion (medications and foods such as shellfish, chocolate, peanuts, etc....)

Inhalation (dusts, pollen)

Absorption (certain chemicals)

35. What type of bee/wasp can only sting once and why? Honey bees only sting once and leave the stingers and venom sac embedded in the skin.

#### **Block Three**

## **Homework Questions: Field Communication**

- 1. List the nine positions of the Function Switch, and their purpose. SQ ON, SQ OFF, REM, RXMT, STBY, TST, LF, Z-FH, and OFF
- 2. How many single channel frequencies can be selected in the Single Channel mode? Eight individual single channel frequencies
- 3. What does it mean when the squelch is switched to the "on" position? This feature will prevent the rushing noise from being heard in the handset/helmet.
- 4. What happens to the memory in a SINCGARS if it is turned off for more than 5 seconds? The memory is completely cleared
- 5. Define the term "over" as it relates to Field Communication. This is the end of my transmission to you, and a response is necessary. Go ahead and transmit.
- 6. Provide the phonetic term for the following letters:

G-Golf

O-Oscar

R-Romeo

E-Echo

D-Delta

S-Sierra

O-Oscar

X-X ray

#### **Homework Questions: 5 Paragraph Order**

1. A warning order must consist of how many paragraphs? What are they? Situation and Mission

- 2. Define the acronym SMEAC? Situation, Mission, Execution, Administration and Logistics, Command and Signal
- 3. What questions should be answered in the "M" portion of SMEAC? Who, What, When, Where, and Why
- 4. Under which paragraph would you find information about medical support? Administration and Logistics
- 5. What are the minimum required paragraphs for a Fragmentation Order? Mission Statement and Execution Statement.

#### **Homework Questions: Individual Movement Techniques**

- 1. List the different types of low silhouette movement? High Crawl, Low Crawl, and Back Crawl
- 2. List the different types of rushes? Individual Rush and Team Rush
- 3. Explain the difference between Fire and Movement and Fire and Maneuver? Fire and Movement is individuals, fire teams and squads providing cover fire while other Individuals, fire teams or squads advance toward the enemy or assault the enemy position. Fire and Maneuver is the process whereby elements of a unit establish a support by fire position to engage the enemy, while another element maneuvers to an advantageous position from which to close with and destroy, or capture the enemy.
- 4. Explain the difference between cover, concealment and camouflage? Cover is protection from the fire of enemy weapons. It may be natural or man-made. Concealment is anything that can hide a person from the enemy. Concealment does not protect you from enemy fire, i.e. brush. Camouflage is anything that keeps yourself, equipment, and position from looking like what they really are.

# **Homework Questions: Patrolling**

- 1. The acronym R.A.C.E.S. is used when defining the different mission of a Combat Patrol. Explain the acronym R.A.C.E.S. Raid, Ambush, Contact, Economy of Forces, and Security
- 2. List the different types of Reconnaissance Patrols? Area Reconnaissance, Zone Reconnaissance and Route Reconnaissance
- 3. Describe the different organizational elements of Combat and Reconnaissance Patrols? Elements of a Combat Patrol are: Patrol Headquarters, Assault Elements, Security Elements, and Support Elements. Elements of a Reconnaissance Patrol are: Patrol Headquarters, Recon Element, and Security Element

- 4. Describe the advantages and disadvantages of fire team column? Advantages: Permits fire and maneuver to the flanks and permits rapid controlled movement. Disadvantages: Vulnerable to fire from the front and the ability to move is limited.
- 5. Describe the advantages and disadvantages of squad column? Advantages: Permits rapid and easily controlled movement and permits fire and maneuver to the flanks as a fire team. Disadvantages: Vulnerable to fire from the front and the ability to fire to the front is limited
- 6. Identify the following types of Fire Team Formations:
- A. Fire Team Column
- B. Fire Team Wedge
- C. Skirmishers Left
- D. Skirmishers Right
- E. Echelon Left
- F. Echelon Right
- 7. Identify the following types of Squad Formations:
- A. Wedge
- B. Column
- C. Squad Line
- D. Echelon Left
- E. Echelon Right
- F. Squad Wedge
- G. Squad Vee

#### **Homework Questions: Land Navigation**

- 1. List the three different types of north? True North, Magnetic North, and Grid North
- 2. A six digit grid coordinate gets you to within how many meters of your intended target?
- 3. Identify the two methods for holding a compass? Compass-to-Cheek Method and Center-Hold Position
- 4. Describe the purpose of a contour line? Indicate the elevation and relief on maps
- 5. List the different methods of measuring distance on a map? Straight Line Distance, Curved or Irregular Distance and Pace Count

# **Homework Questions: Improvised Explosive Device**

1. List the major components common to the different types IED's? Casings, Initiating Systems, and Main Charge

- 2. List the different types of IED's found on the battlefield? High explosive, chemical, booby traps, and mines
- 3. Explain the different indicators one should be aware of to aid in the detection of IED's? Unusual behavior, vehicles following a convoy for long distances, personnel on overpasses, signals from vehicles or bystanders, people videotaping ordinary activities or military actions, suspicious objects, metallic objects, markers by the road, new or out of place objects in an environment, graffiti symbols, signs that are new or erected or seem out of place, exposed antennas, and wires laid in plain sight
- 4. Explain the indicators and design of a PBIED? PBIED Design: If the charges used by bombers are effectively packaged and concealed, a suicide bomber can carry up to 45 pounds of explosives; however, most suicide belts are designed to hold smaller amounts, up to 12 pounds. It should be noted that fragment producing materials are often incorporated into the design of these belts/vests. PBIED Indicators: Include individuals who deliberately ignore orders to stop or attempt to circumvent a security checkpoint, those wearing too much clothing for the prevailing weather conditions, one with suspicious bulges in his/her clothing, carrying packages/bags or wearing satchels/backpacks, and an individual handling wires, switches, an actuator, or a "dead man's" switch.

## **Homework Questions: M-50 Field Protective Mask**

- 1. List the steps for assembling the M-50 Field Protective Mask. Install head harness, install inlet disk valves, install air deflectors, install internal drink tube, install drink coupler, install self-sealing disk valves, install M61 filters, install outlet disk valve, install outlet valve cover, and install clear/sunlight/laser outserts.
- 2. List the main parts of the mask. Faceblank, nosecup, head harness, front module, outlet valve cover assembly, inlet/outlet disk valve, self-sealing disk valve, drinking system, internal drink tube, filter mounts (left and right), and air deflectors.
- 3. Identify the first step in donning your gas mask once you have received word of possible contamination? Stop breathing and close your eyes. **Do not take another breath or open your eyes until the mask has been donned and cleared**
- 4. Once the order is given to don mask, how long do you have to don your gas mask without a hood. 9 seconds

#### **Homework Questions: MOPP**

- 1. List the five limitations of MOPP? Heat exhaustion, work rate, five senses, personal needs and eating
- 2. Are gloves worn or carried in MOPP Level 3? Gloves are carried
- 3. Which types of agents can be detected by the M256A1 Kit? Chemical agents present, either as a liquid or as a vapor

4. Describe the relationship of the M256A1 kit and direct sunlight. During testing it is important to keep the ticket out of direct sunlight. Sunlight speeds up the evaporation of the reagents. The ticket, when testing, must be kept stationary during all parts of the test.

# **Homework Questions: Chemical Agent**

- 1. List four Nerve agents. GA-Tabun, GB-Sarin, GD-Soman, and VX
- 2. Describe how Blood agents affect the body. They react with metal complexes of body to prevent intracellular oxygen utilization
- 3. List three Vomiting agents. DA-Diphenychlorarsine, DC-Diphenycyanarsine, and DM-adamsite
- 4. Describe the signs and symptoms associated with a lacrimator agent. Pain and burning to the eyes, profuse tearing and photophobia, rhinorrhea, epistaxis, chest tightness, coughing and dyspnea, and blepharospasm

## **Homework Questions: Biological Agents**

- 1. List the signs and symptoms of inhalation anthrax. Gradual and nonspecific onset of fever, malaise, fatigue, nonproductive cough and mild chest discomfort. Initial symptoms are followed by a short period of improvement (hours to 2-3 days). Abrupt onset of severe respiratory distress with dyspnea, diaphoresis, stridor and cyanosis. Septicemia, shock and death usually follow within 24-36 hours after onset of respiratory distress
- 2. When and where does the smallpox rash develop? Two to three days after intial onset a rash appears. It starts with face, hands and forearms, moves to the lower extremities and then to the trunk. Lesions will appear as minute macules, then papules, vesicles, pustules and finally scabs. Scabs form at 8 14 days and slough off at 14 28
- 3. Identify three facts about Botulism. Botulism is a biological toxin caused by the bacterium *Clostridium botulinum*. It is the most toxic substance to man. Due to its incredible potency and relative ease of manufacture, botulism toxin is considered a likely threat. Botulism acts as a neurotoxin
- 4. List three actions to avoid during the "Post-Attack" phase of biological warfare. Continue to practice an increased level of good health, field sanitation and hygiene discipline. Keep wounds, cuts, and scratches clean by using soap, water and utilize available first aid. Don't consume local foods. Eat and drink only approved food and water. Do not bathe in lakes, ponds and streams. Do not touch animals, especially dead ones. Observe BW contamination markers.

# **Homework Questions: Radiological Agents**

- 1. What type of burst is most likely to be used against ground forces? What types of injuries would it likely cause? Air burst
- 2. Describe "flash blindness". Flash blindness results from looking in the general direction but not directly at a brilliant flash of intense light energy. It is a condition in which a flash of light swamps the eyes and depletes the pigmentation from the retinal receptors. Flash blindness is a temporary condition that usually last for several seconds but not more than two minutes when exposure occurs during daylight. The blindness will be followed by a darkened after image that lasts for several minutes. If exposure occurs at nighttime, blindness can last from 15 to 30 minutes before full nighttime adaptation occurs.
- 3. Describe the signs and symptoms of mild, severe, and deadly levels of radiation exposure. Mild vomiting **does not occur by the end of the fourth** hour after exposure. Severe vomiting **within two** hours.

  Deadly vomiting **within the first** hour accompanied by **explosive diarrhea.**
- 4. Describe the recommended antibiotic therapy to be administered following radiation exposure. Administer antibiotics to manage any infection after radiation exposure, such as penicillin and ampicillin. You will need to use 3 times the normal dosage of the antibiotics.

# **Block Three Marine Corps Fundamentals Review Questions**

- 1. What is the definition of a patrol? A patrol is a detachment of ground forces sent out by a larger unit for the purpose of gathering information or carrying out a destructive, harassing, or security mission.
- 2. What are the two types of patrols? Combat Patrols and Reconnaissance Patrols.
- 3. What are the components of the M-50 Field Protective Mask?

Faceblank

Nosecup

**Head Harness** 

Front Module.

**Outlet Valve Cover Assembly** 

Inlet/Outlet Disk Valve

Self-sealing Disk valve.

Drinking System

Internal Drink Tube.

Filter Mounts, Left and Right.

Air Deflectors.

Mask Carrier.

Individual Equipment Carrier Bag.

Clear Outsert Assembly.
Waterproofing Bag.
Water Canteen Cap.
M61 filters.
Faceform
Mask Carrier Extension Strap.
Vision Correction Assembly.

4. What are the four types of nuclear blasts?

High Altitude Burst Air Burst Surface Burst

Subsurface Burst

6. What are the components of the manpack configuration (AN/PRC-119A)?

Receiver-Transmitter (RT)

Handset

Manpack Antenna

**Battery Box** 

**Battery** 

Field Pack

- 7. What are the parts of the compass? Thumb loop, short luminous line, luminous sighting dots, sighting slot, sighting wire, floating dial, graduated straight edge, lens, fixed index line, bezel ring, cover, rear sight, and base.
- 8. What are the four safety rules of any weapon?

SAFETY RULE #1 Treat every weapon

SAFETY RULE #2 Never point a weapon

SAFETY RULE #3 Keep your finger straight

SAFETY RULE #4 Keep the weapon on safe

- 9. What are the characteristics of weapon condition one for the M16/ M4 service rifle? Caliber 5.56mm, magazine-fed, gas-operated, air-cooled, shoulder-fired weapons that can be fired either in automatic three-round bursts or semiautomatic single shots.
- 10. What is the purpose of a warning order? To provide subordinates with maximum time available to prepare for an operation or action.
- 11. What are the components of an IED? Casings, Intimating Systems and Main Charge.
- 12. What is the definition of Mission-Oriented Protective Posture (MOPP)? MOPP is a flexible system of protection against chemical agents, which is used to facilitate mission accomplishment.

- 13. What are the general groups of biological agents?
- -Bacteria
- -Virus
- -Biological Toxins
- 14. What are the limitations of MOPP?
- -Heat Exhaustion
- -Work Rate
- -Five Senses
- -Personal Needs
- -Eating
- 15. What are the organizational elements of a patrol? The Platoon Commander, Patrol Units and Special Organization
- 16. What are the missions of a combat patrol? Raid, Ambush, Contact, Economy of Forces, and Security
- 17. What are the two settings of the COMSEC switch of the receiver-transmitter? CT (cipher text) & RV (receive variable)
- 18. What information is contained in an warning order?
- (a) Situation A brief statement of the situation.
- (b) Mission Mission of the patrol.
- (c) General Instructions
- 19. What information is contained in a fragmentation order?
- (1) Mission Statement the second paragraph of the five paragraph order format. This will include the same kind of information as if you were preparing the whole order.
- (2) Execution Statement This is the HOW of the operation and should be as descriptive as possible given time constraints.
- 20. What are the appropriate actions at halts to check for IEDs?

5 to 25 meter checks and 25 meter checks.

21. What are the missions of a reconnaissance patrol?

Area reconnaissance, zone reconnaissance, and route reconnaissance.

22. What is the purpose of a fragmentation order?

To ensure continuous action as a situation develops or as decisions are made.

24. What is the purpose of a map? The purpose of a map is to provide information on the existence, the location, and the distance between ground features.

25. What is the purpose of the 5 paragraph order?

The purpose of the five-paragraph order is to issue an order in a clear and concise manner by a thorough orientation of the area of operations.

- 26. What do you NOT want to do with suspected IEDs?
- (1) Never approach a suspected IED. Establish standoff by using binoculars and spotting scopes from multiple angles to confirm the presence of an IED. When in doubt, back off and call EOD.
- (2) Do not pick up det cord. Det cord is an explosive and the presence of it alone is enough to call EOD. Do not trace or pull on det cord.

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- (3) Do not directly trace command wire (CW). The enemy has placed trip wires and other IEDs under/in the vicinity of command wires. When a command wire is located, rather than walking parallel to or over the wire to locate the initiation point, work in an "S" pattern, crossing the CW until the initiation point is located.
- (4) Do not focus on the "found" IED. An IED, once found, is not going to move. Conduct secondary sweeps (5 to 25) and set in cordons. Always think a couple steps ahead and have a plan for any possible encounters that may arise. Again, once positive IED indicators are found move to safe distances and call EOD.
- 27. What are the colors used on a map?

*Black* - used to identify the majority of cultural or man-made features, such as buildings, bridges, and roads not shown in red

*Red* - main roads, built up areas, and special features such as dangerous or restricted areas *Blue* - is for water features: lakes, rivers, swamps, and streams

Green - identifies vegetation such as woods and orchards

Red Brown - all landforms such as contours, fills, and cuts

- 28. What is the purpose of contour lines on a map? Contour lines indicate elevation and relief on maps.
- 29. What is the acronym used for the five-paragraph order format? **SMEAC**
- 30. In the phonetic alphabet, how is the letter W expressed? Whiskey
- 31. What is the definition of an IED? Those devices placed or fabricated in an improvised manner incorporating destructive, lethal, noxious, pyrotechnic, or incendiary chemicals and designed to destroy, incapacitate, harass, or distract. They may incorporate military weapons, but are normally devised from non-military components.
- 32. What are the four types of fire team formations? Column, Wedge, Skirmishers(left and right), a Echelon(left and right).
- 33. What are the five types of combat squad formations? Column, Line, Echelon(left and right), Wedge, and Squad Vee.

- 34. What are the three types of special patrolling signals? Whistle, Pyrotechnics, and Hand and Arm.
- 35. What is the treatment of blood agents?
- Don protective mask
- Decontaminate exposed skin. Move to fresh air
- Vigorously treat symptomatically
- Administer IV Sodium Nitrite (10ml) followed by IV Sodium Thiosulfate (50ml)
- Second treatment with each of the two antidotes may be given at up to half the original dose, if needed
- 36. What is the purpose of the M291 Skin Decontaminating kit? to absorb and then neutralize liquid chemical agents present on the skin.
- 37. What is Botulism and what causes it? A biological toxin caused by the bacterium Clostridium botulinum.
- 38. How is Ricin treated?
- An antitoxin is NOT available.
- Give supportive care
- Isolation is not required

## **Block Four**

## **Homework Questions: Intro to TCCC**

- 1. What are the three goals of TCCC?
- Treat the casualty
- -Prevent additional casualties
- -Complete the mission
- 2. What is the first phase of TCCC?

Care Under Fire

- 3. What is the only life-saving intervention done during Care Under Fire? Immediate control of extremity hemorrhage with a tourniquet
- 4. Which phase of TCCC is Tactical Field Care? SECOND PHASE
- 5. List four priorities of Tactical Field Care.
- Disarm all casualties with an altered mental status
- Obtain airway
- Assess and treat external hemorrhaging
- Manage shock/fluid resuscitation
- Hypothermia prevention
- Pain relief/antibiotics

6. What does TACEVAC encompass? CASEVAC & MEDEVAC

7. Which phase of TCCC has the most readily available medical equipment? THIRD PHASE OF TCCC/Tactical Evacuation (TACEVAC)

## **Homework Questions: Shock**

1. List the three major types of shock. Hypovolemic, Distributive, and Cardiogenic

2. Describe the signs or symptoms associated with Class III Shock. The body's compensatory systems can no longer maintain adequate perfusion. The classic signs of shock (tachycardia, tachypnea, and confusion) become obvious.

- 3. List the two medications administered to prevent a casualty from developing septic shock. Oral antibiotic moxifloxacin and the parental (injectable) antibiotic ertapenum
- 4. Which is more important for a casualty in shock, IV fluid or rapid transport? Why? Transport of the trauma casualty should never be delayed to start an IV.

#### **Homework Questions: Hemorrhage**

- 1. List four signs or symptoms of internal hemorrhage.
- Hematemesis (vomiting of bright red blood)
- Hemoptysis (coughing up of bright red blood)
- Melena (black tarry stools)
- Hematochezia (bright red blood from the rectum)
- Hematuria (blood in the urine)
- Ecchymosis (bruising)
- Rapidly forming hematoma and edema
- Rigidity with or without rebound tenderness upon palpation in abdomen
- Signs of shock
- 2. Identify the appropriate treatment for life threatening hemorrhage during "Care Under Fire". Tourniquet application
- 3. Where on the extremities should a tourniquet NOT be placed? Below the knee or elbow or over a joint due to there being two bones, i.e., Tibia/Fibula below the knee, and Radius/Ulna below the elbow
- 4. During which phase of TCCC is the use of hemostatic agents authorized? Tactical Field Care

## **Homework Questions: Maintain Airway**

- 1. Identify the three sections of the pharynx.
- -Nasopharynx
- -Oropharynx
- -Hypopharynx
- 2. Identify four types of mechanical airway obstructions.
- Teeth
- Gum
- Tobacco
- Bone
- Blood
- Vomit
- Glass
- Rocks
- Debris
- 3. Identify the two manual airway maneuvers.
- Trauma Jaw Thrust
- Trauma Chin Lift
- 4. Identify the contraindication for using a King LT airway.

A conscious patient

#### **Homework Questions: Cricothyroidotomy**

- 1. List the four indications for an emergency cricothyroidotomy.
- Obstructed airway, Congenital deformities, Trauma to the head and neck, Cervical spine fractures
- 2. List the ten steps in performing an emergency cricothyroidotomy.
- Step 1 Assess patient
- Step 2 Gather equipment
- Step 3 Prepare and position patient
- Step 4 Locate the cricothyroid membrane
- Step 5 Make incision
- Step 6 Open Incision
- Step 7 Insert Tube
- Step 8 Check for proper placement
- Step 9 Secure Dressing
- Step 10 Monitor Patient
- 3. Identify the three common complications from performing an emergency cricothyroidotomy. Hemorrhage, Esophageal perforation, Subcutaneous emphysema

- 4. What equipment is necessary to perform an emergency cricothyroidotomy?
- Scalpel: # 10 blade
- Antiseptic (Alcohol or Povidone-Iodine)
- 6 7 mm endotracheal tube with 10cc syringe for balloon cuff
- Means to secure tube (securing ribbon, tape or sutures)
- Instrument to expose and define the opening (Trach Hook or Curved Kelly hemostats)
- Gauze (Petroleum and sterile)
- Bag-valve-mask (BVM) and oxygen source, if available
- 5. Identify the anatomical landmarks below A) Jugular Vein B) Thyroid Cartilage C) Cricothyroid Membrane D) Cricoid Cartilage E) Carotid Artery F) Thyroid Gland G) Trachea

#### **Homework Questions: Respiratory Trauma**

- 1. Identify five structures found in the mediastinum.
- Heart
- Great vessels (aorta, superior/inferior vena cava)
- Trachea (windpipe)
- Mainstem bronchi (there are two bronchi- a right and left)
- Esophagus (lies directly behind the trachea)
- 2. Identify the appropriate treatment for a simple rib fracture. Simple rib fractures usually require no treatment other than analgesics.
- 3. Identify the two serious consequences of a tension pneumothorax.
- (1) breathing becomes increasingly difficult
- (2) cardiac blood flow is severely decreased.
- 4. Identify the treatment for a sucking chest wound.
- The immediate treatment is to seal the wound with an occlusive dressing. This intervention helps to restore air flow into the lung during inspiration, but could lead to the development of a tension pneumothorax. If an exit wound is present tape it on all four sides.
- Assess both anterior and posterior torso for penetrating trauma.
- Monitor for signs and symptoms of tension pneumothorax. If signs of increasing respiratory distress develop, the dressing over the wound should be removed to allow for decompression of any accumulating tension. If this is ineffective, needle decompression and positive pressure ventilation (if available) should be considered if not already employed.
- Administer oxygen if available
- Place patient on affected side
- Pain management
- Monitor and TACEVAC
- 5. Identify the major landmarks used in performing a needle thoracentesis. Mid-Clavicular Line (MCL), 2nd Intercostal Space

#### 6. What are the indications for a needle thoracentesis? Contraindications?

**Tension Pneumothorax** 

- Any casualty with thoracic injury is at risk for developing a tension pneumothorax.
- Casualties at particular risk are those who have a penetrating wound to the chest and those with signs of rib fracture.
- There are no significant contraindications for needle thoracentesis with penetrating chest trauma.

## 7. List the equipment needed to perform a needle thoracentesis.

- 14-gauge, 3.25-inch needle/catheter
- Antiseptic solution (if available)
- Gloves

# 8. Explain the acronym IAP and what you are specifically looking for before making the decision to perform a needle thoracentesis.

- Inspect look for bilateral rise and fall of the chest during respirations.
- Auscultate listen to the lung fields at the mid-clavicular and mid-axillary lines bilaterally if tactical situation allows (it may be hard to hear in a combat setting).
- Palpate feel for flail segments or crepitus.

#### 9. Explain how and where to insert the needle/catheter.

- Cleanse the area
- Insert catheter Firmly insert the needle into the skin over the top of the third rib in to the second intercostal space at a 90 degree angle.
- Puncture the parietal pleura Ensure the chest cavity has been penetrated, as evidenced by feeling a "pop" as the needle enters the chest cavity. The pressure may be so great that a rush of air may be encountered.
- Remove needle secure catheter to chest wall. Identify Landmarks \*\*ON THE AFFECTED SIDE\*\*
- Midclavicular line
- 2nd Intercostal space

#### 10. Identify the possible complications of performing a needle thoracentesis.

- -Hemothorax blood within the pleural space. May be caused when the needle punctures any vessels within the chest wall.
- -Cardiac Tamponade pressure on the heart that occurs when blood or fluid builds up in the space between the heart muscle and the pericardium. Ensuring that the insertion site for the needle is at or lateral to the nipple line will help avoid this complication.
- -Subcutaneous emphysema released air becomes trapped within the subcutaneous tissue. Feels like "Rice Krispies" underneath the skin.
- -Misdiagnosis performing a needle thoracentesis on a casualty with non-penetrating torso trauma could result in a pneumothorax if not already present.

## **Homework Questions: Abdominal Injuries**

- 1. Which quadrant contains the appendix? Right Lower Quadrant (RLQ)
- 2. Identify the solid organs and explain their significance. Solid Organs - solid masses of tissue (liver, spleen, pancreas and kidneys) Significance - highly vascular organs where injury may cause severe bleeding.
- 3. Describe the appropriate treatment for an impaled object.

The impaled object should neither move nor be removed. If bleeding occurs around it, direct pressure should be applied around the object to the wound with a bulky dressing that stabilizes the object and prevents movement.

4. Describe the appropriate treatment for an abdominal evisceration.

Abdominal contents should be covered with a sterile dressing that has been moistened with saline. These dressings should be periodically remoistened with saline to prevent them from drying out. Wet dressings may be covered with a large, dry dressing to keep the casualty warm.

#### **Homework Questions: Musculoskeletal Injuries**

- 1. List four examples of long bones. femur, humerus, ulna, radius, tibia and fibula
- 2. What is the treatment for an avulsion injury?
- Control bleeding
- Apply field dressing to avulsed area.
- Prevent further contamination
- Ensure avulsed flap is lying flat and that it is aligned in its normal position.
- Make every effort to preserve the avulsed part (wrapthe part in a saline or water soaked field dressing, pack wrapped part in ice, whenever possible. Be careful to avoid direct contact between the tissue and ice.)
- Transport the avulsed part with the patient, but keep it well protected from further damage and out of view of the patient.
- Immobilize extremity or body part as indicated by the severity of the avulsion.
- 3. Explain the definition of a sprain.

A joint injury resulting in partial tearing or stretching of supporting ligaments.

- 4. List four signs/symptoms of a fracture.
- -Inability to move the extremity
- -Discoloration
- -Deformity
- -Edema
- -Pain with or without movement
- -Protruding bone
- -Crepitus (crunching, grating sound/feeling)
- -Any injury that may indicate fracture (i.e. gunshot wound)

5. Describe a formable splint and an example.

Formable splints can be molded into various shapes and combinations to accommodate the shape of the injured extremity. Examples include vacuum splints, pillows, blankets, cardboard splints, SAM splints and wire ladder splints.

- 6. What are the steps for splinting a fractured tibia or fibula?
- Check distal pulses
- If only one bone is broken, the other can act as a splint
- Utilize the stirrup method with the SAMS splint
- Apply splint on both sides of tibia and fibula
- Use kerlex bandage to secure splint
- Immobilize from knee to ankle
- Re-check distal pulse

#### Homework Questions: Head, Neck, and Face

1. Identify the function of the Cerebellum.

It coordinates the various activities of the brain, particularly movement, coordination and balance.

- 2. List the six key points for treatment of a neck wound.
- Consider C-spine
- Control hemorrhage with occlusive dressing. Apply pressure only to the affected vessels
- Consider cricothyroidotomy if airway iscompromised
- Administer fluids (see Combat Fluid Resucitationlesson)
- NO PAIN MEDICATIONS!
- TACEVAC
- 3. List the appropriate treatment for a single eye injury in a combat situation. In combat, only patch the affected eye. Member can function effectively with one eye.

#### **Homework Questions: Tactical Fluid Resuscitation**

- 1. What is the definition of an isotonic solution? Volume replacement for a short period of time
- 2. What is the preferred fluid resuscitation route for a patient with a normal level of consciousness and the ability to swallow? Oral Hydration
- 3. What is the indication for using the intraosseous route? Unable to obtain IV access
- 4. What are the two most common crystalloids used in the treatment of shock? LR & NS
- 5. What is the fluid of choice for a trauma patient in a tactical situation? Hextend is the fluid of choice for volume replacement due to trauma in a tactical situation.

- 6. What gauge needle/catheter is used for IVs in the field setting? 18
- 7. Name three potential complications of IV therapy. Infiltration, Phlebitis, air embolism, circulatory overload, systemic infection
- 8. What is used as a reference point (landmark) for intraossesous placement? Jugular notch

#### **Homework Questions: Casualty Assessment**

- 1. List and briefly describe the three phases of Tactical Combat Casualty Care (TCCC).
- -Care under fire-During this phase, the Corpsman and casualty are still under hostile fire.
- -Tactical field care-During this phase, the Corpsman and casualty are no longer under hostile fire. This also applies to situations in which an injury has occurred on a mission, but hostile fire has not been encountered.
- -Tactical evacuation care (tacevac)- During this phase, casualties should be ready for transport to a higher level of care.
- 2. Management of a compromised airway would be taken care of during what phase of TCCC? Tactical Field Care
- 3. Briefly describe why prevention of hypothermia is so important for the casualty. Hypothermia interferes with the body's blood clotting mechanism and increases mortality.

#### **Block Four Combat Medicine Review Questions**

- 1. What are the anatomical landmarks for a cricothyroidotomy? Trachea, thyroid cartilage, cricoid cartilage, cricothyroid membrane, carotid arteries, jugular veins, esophagus & thyroid gland.
- 2. What are the components of the cardiovascular system? The cardiovascular system consists of the heart (a pump), the blood (circulating fluid), and the vascular system (the container that holds the blood).
- 3. What are the three basic groups that IV solutions fall into? Crystalloids, Colloids, Whole Blood
- 4. What causes a Flail Chest? Blunt trauma to the chest wall, especially an impact into the sternum or the lateral side of the thoracic wall.
- 5. What are the three types of muscles in the body? Skeletal, smooth, cardiac
- 6. What major abdominal organs are in the Right Upper Quadrant? Colon, right kidney, pancreas, liver, gallbladder
- 7. What is the initial treatment of a life threatening extremity wound? If the casualty has a life-threatening hemorrhage, apply a tourniquet.

- 8. The skeletal portion of the thorax is formed by what? The skeletal portion of the thorax is a bony cage formed by the sternum, costal cartilages, ribs and the bodies of the thoracic vertebrae.
- 9. What are the three types of head injuries? Soft Tissue Injuries, (Skull Injuries) Open Skull Injuries & Closed Skull Injuries
- -10. What are the 10 procedural steps of performing an emergency cricothyroidotomy? Step 1 Assess patient, Step 2 Gather equipment, Step 3 Prepare and position patient, Step 4 Locate the cricothyroid membrane, Step 5 Make incision, Step 6 Open Incision, Step 7 Insert Tube, Step 8 Check for proper placement, Step 9 Secure Dressing, Step 10 Monitor Patient
- 11. What are two serious consequences of Tension Pneumothroax? (1) breathing becomes increasingly difficult and (2) cardiac blood flow is severely decreased.
- 12. What plasma substitute is the IV fluid of choice for volume replacement due to trauma in a tactical situation? Hextend is the fluid of choice for volume replacement due to trauma in a tactical situation.
- 13. What is the Hemostatic agent used on the battlefield? QuikClot Combat Gauze
- 14. Which lung is larger than the other and is divided into three lobes? The right lung is larger than the left lung and is divided into three lobes.
- 15. What are the major types of facial injuries? Soft tissue, bone, eye, fractured nose
- 16. Treatment for strains and sprains includes R.I.C.E. What does R.I.C.E stand for? R.I.C.E. (Rest, Ice, Compression, Elevation)
- 17. What is the second leading cause of preventable death on the battlefield? Tension Pneumothorax
- 18. What is homeostasis? A state of physiological equilibrium produced by a balance of functions and chemical composition within the body.
- 19. Where should a tourniquet NEVER be placed? Do NOT place a tourniquet below the knee or elbow or over a joint due to there being two bones, i.e., Tibia/Fibula below the knee, and Radius/Ulna below the elbow, which can splint the hemorrhaging vessel and make it impossible to control the bleed.
- 20. What major abdominal organs are in the Right Lower Quadrant? Ascending colon, small intestine, Major artery and vein for right leg, appendix
- 21. For which type of injury is a Modified Barton bandage used? Mandibular fracture
- 22. How much blood is in the average adult? 5 to 6 liters

- 23. What is the difference between a strain, sprain, and dislocation? Strain - Injury to a muscle or tendon resulting from over stretching or over exertion. Sprain - A joint injury resulting in partial tearing or stretching of supporting ligaments. Dislocation - When a bone is forcibly displaced from its joint.
- 24. What are the four classifications of hemorrhagic shock? Class I Shock this stage has few clinical manifestations, Class II Shock although the circulating blood volume is reduced, compensatory mechanisms such as the sympathetic nervous system are able to maintain blood pressure and tissue perfusion at a level sufficient to prevent cellular damage, Class III Shock at this point, unfavorable signs begin to appear, Class IV Shock this is a severe stage of shock!
- 25. What major abdominal organs are in the Left Upper Quadrant? Colon, Left kidney, Pancreas, Spleen and Stomach
- 26. What is the most common complication associated with emergency cricothyroidotomy? Hemorrhage
- 27. What are the two types of bruising associated with closed skull injuries? Raccoon eyes & Battle Sign
- 28. What anatomical landmarks are necessary in order to perform needle thoracentesis? Mid-Clavicular Line & 2nd Intercostal Space
- 29. What are the classifications of abdominal organs? Solid &Hollow
- 30. What are the causes of cervical spine neck injuries? Compression injury, Flexion (hyperextension and hyperrotation), Lateral bending
- 31. What is Phlebitis? Inflammation of a vein due to bacterial, chemical, or mechanical irritation.
- 32. What are the three phases of Tactical Combat Casualty Care? Care under fire, tactical field care, and tactical evacuation
- 33. What are the four types of bones in the body? Long, short, flat, irregular (sutural & sesamoid)
- 34. What is the definitive management of hemorrhagic shock? You must stop the bleeding.
- 35. What are the three types of distributive shock? Septic Shock, Neurogenic Shock, Psychogenic (Vasovagal) Shock
- 36. What are signs and symptoms of intrinsic cardiogenic shock? Abnormal pulse (irregular rate and rhythm), Chest pain, Shortness of breath, Nausea and vomiting
- 37. What major abdominal organs are in the Left Lower Quadrant? Descending Colon, Descending, Small Intestine, Major artery and vein for left leg

- 38. What are signs and symptoms of vasculature neck injuries? Hemorrhage, Hemoptysis, Hematemesis
- 39. What are the procedural steps for needle thoracentesis?

Assess Casualty and Make Decision - based on mechanism of injury (MOI) and a noted increase in difficulty breathing.

- Inspect look for bilateral rise and fall of the chest during respirations.
- Auscultate listen to the lung fields at the mid-clavicular and mid-axillary lines bilaterally if tactical situation allows (it may be hard to hear in a combat setting).
- Palpate feel for flail segments or crepitus.

Assemble and Check Equipment - Gather 14-gauge, 3.25-inch needle/catheter, alcohol swab and gloves.

**Prepare Patient** 

- Position the patient in upright position (if possible)
- Explain the procedure to the patient, if conscious
- Expose the anterior chest

Identify Landmarks \*\*ON THE AFFECTED SIDE\*\*

- Midclavicular line
- 2nd Intercostal space

Perform the Procedure

- Cleanse the area
- Insert catheter Firmly insert the needle into the skin over the top of the third rib into the second intercostal space at a 90 degree angle.
- Puncture the parietal pleura Ensure the chest cavity has been penetrated, as evidenced by feeling a "pop" as the needle enters the chest cavity. The pressure may be so great that a rush of air may be encountered.
- Remove needle secure catheter to chest wall.
- 40. What is subcutaneous emphysema? The presence of free air or gas in the subcutaneous tissues.
- 41. What causes an Open Pneumothorax (Sucking Chest Wound)? Most often the result of gunshot wounds, but they can also occur from impaled objects, stabbings, and occasional blunt trauma.
- 42. What are the three types of hemorrhage and what are their distinguishing traits? Arterial (bright red blood), Venous (dark red blood, Capillary (brick red blood)

#### **Block Five**

#### **Homework Questions: Blast-Related Injuries**

1. Identify the five categories of blast effects on the human body? Primary (Direct blast effects), Secondary (Projectiles propelled by explosions), Tertiary (Body propelled onto hard surface), Quaternary (Heat and Combustion Flames), and Quinary (Additives, i.e. chemicals, radiation, etc)

- 2. Explain the pattern of injury consistent with a blast victim? There are two categories, military and civilian. Military likely to be young and healthy, while civilian may be very young or very old, and in poor health. Military casualties are likely to be wearing protective gear, and therefore less likely to have injury to upper torso or head. Most wounds non-critical, soft tissue injuries. Up to 70% of all mortalities involve head injuries.
- 3. Identify the wounding effects fragmentation has on different parts of the body? Limbs are the most commonly affected, accounting for 70% of all injuries. Primary and secondary effects of the blast may require emergency treatment to prevent exsanguination. Extremity wounds need antibiotics to prevent systemic infection. Eyes are susceptible to secondary and tertiary effects and can cause penetrating eye injuries.
- 4. Describe the wounding effects of blast overpressure? Lung Injuries are the most common cause of death related to the primary blast effect, so all blast injury casualties be examined for possible tympanic membrane rupture. Blast induced deafness may occur, and could heighten the patient's anxiety. Gastrointestinal Injuries are more likely from blasts detonated inside a building, and of these, intestinal perforation is the most common. Symptoms include pain in the abdomen, rectum and testes. Solid Organ injuries are rare in open air blasts but have been reported in underwater blasts. Central Nervous System injuries to include Traumatic Brain Injuries (TBI) are a significant issue associated with blast injuries. Moderate to severe TBI accounts for 71% of the early deaths associated with explosions and 52% of later deaths. Mild TBI is associated with long term issues such as memory loss, irritability and decreased cognitive functions. ALL PERSONEL INVOLVED IN AN EXPLOSIVE ATTACK SHOULD BE REFERRED TO THE MEDICAL OFFICER FOR DOCUMENTATION AND EVALUATION

#### **Homework Questions: Evaluate Traumatic Brain Injury**

- 1. What are the mandatory events requiring TBI evaluation? Involvement in a vehicle blast event/collision/rollover, Presence within 50 meters of a blast event (inside or outside), Direct blow to the head or witnessed loss of consciousness, Exposure to more than one blasé event
- 2. What are the 2 categories of TBI? Primary Brain Injury, Secondary Brain Injury
- 3. What are the symptoms of mild TBI? Loss of consciousness brief, usually a few seconds/minutes (and may not occur), Testing and scans of brain may appear normal, 90% of individuals recover within 6-8 weeks.
- 4. What does "IED" stand for? Injury, Evaluation, Distance
- 5. What is the total score for a MACE exam? 30
- 6. What is the final data needed for the SIGACT report? Date of potentially concussive event, Type of potentially concussive event triggering evaluation, SIGACT number (if applicable), Personal identifier, Service member's name, Unit name/Unit identification code/home duty station, Combatant Command in which event occurred, Service member's distance from blast, Disposition following the medical evaluation.

# **Homework Questions: Manage Burn Casualties**

- 1. Identify three characteristics of a second degree burn. 1) Skin is moist, with reddened areas, 2) Blisters or open weeping wounds, 3) Deep, intense pain, 4) Edema will be moderate, 5) Fluid loss may be significant depending on the extent of the burn.
- 2. Using the Rule of Nines, estimate the body surface area affected for a patient with burns to the upper and lower back. 18%
- 3. Using the Rule of Nines estimate the body surface area affected for a patient with burns to the chest, abdomen and right front arm. 22.5%
- 4. Describe the appropriate treatment for burns, assuming no delay in casualty evacuation. Stop the burning process, irrigation with large volumes of room-temperature water. Manage airway, breathing and circulation, using two large-caliber IV catheters for burns that cover more than 20% of the TBSA. Perform detailed assessment, manage hypothermia, estimate depth and extent of burn, and dress the burn, with water-jel dressings if available. (Otherwise use dry, sterile dressings) give IV fluids with LR solution, using Parkland formula.

# **Homework Questions: Triage**

- 1. What is the purpose of tactical triage? Sort casualties into groups based on immediate medical needs, thereby helping combat medics segregate, treat, and prioritize evacuation in the shortest time possible.
- 2. List the three principle of triage. Accomplish the greatest good for the greatest number of casualties, employ themost efficient use of available resources, and return personnel to duty as soon as possible.
- 3. Which category would each of the following injuries be triaged in?

1) Airway Obstruction	<u>Immediate</u>
2) Penetrating head trauma	<u>Expectant</u>
3) Burns less than 20%	<u>Delayed</u>
4) Small fractures	_Minimal_

- 4. Identify three priorities for mass casualty triage. Secure the area and ensure scene safety, establish Command Post/Casualty Collection Point and routes of access, Estimate initial number, severity and additional hazards, Assign initial triage categories, Perform life-saving interventions, Re-triage with an extended secondary survey as time permits.
- 5. Using the triage algorithm, a patient with controlled hemorrhage that can obey simple commands, has a normal radial pulse, and is not in respiratory distress would be placed in which category? Delayed

# **Homework Questions: CASEVAC/TACEVAC**

- 1. Identify three different facilities that fall under the Forward Resuscitative Capability. Medical Battalion, Casualty Receiving and Treatment Ships (CRTS), Shock Trauma Platoon (STP), and Forward Resuscitation Surgical Suite (FRSS)
- 2. How many litter patients can be carried in an M-997 vehicle? Four
- 3. Describe the difference between the Urgent and Urgent Surgical categories. <u>Urgent Evacuation</u>: Evacuation to next higher capability of medical care is needed to save life or limb; evacuation must occur within two hours.

<u>Urgent Surgical Evacuation:</u> Same criteria as Urgent. The difference is that these patients need to be taken to a facility with surgical capabilities.

- 4. In relation to the Nine Line evacuation request, what are "authorized brevity codes"?

  <u>Line 1 Location</u> location of the Landing Zone (LZ) where the casualties are to be picked up. This information will be transmitted in the form of an eight digit grid coordinate.
- <u>Line 2 Radio Frequency, Call Sign</u> radio frequency and call sign that will be used by the ground unit at the LZ. You should know this information before every operation.
- <u>Line 3 Precedence (Urgent, Urgent Surgical, Priority, and Routine)</u> number of casualties by precedence. Use the following codes:

Alpha - Urgent Bravo - Urgent Surgical Charlie - Priority Delta - Routine Echo - Convenience

<u>Line 4 - Special Equipment</u> - identifies any special equipment that will be needed, such as a hoist in the case where a helo cannot land. Use the following codes:

Alpha - none Bravo - hoist Charlie - extraction equipment Delta - ventilator

<u>Line 5 - Number of Patients by Type</u> - number of patients who are ambulatory and the number of litter patients. This determines whether or not the helo should be configured to carry litters. Use the following codes:

Lima - litter patients Alpha - ambulatory patients <u>Line 6 - Security of Pickup Site</u> - whether or not the enemy is near the LZ. If all of your casualties are routine and the LZ is not secured, then you may not get your requested CASEVAC approved. Use the following codes:

November - no enemy troops in area

Papa - possible enemy troops (approach with caution)

Echo - enemy troops in area (approach with caution)

X-Ray - enemy troops in area (armed escort required)

<u>Line 7 - Method of Marking Pickup Site</u> - methods that you will use to mark your LZ and then ask the pilot to identify. Use the following codes:

Alpha - panels

Bravo - pyrotechnic signal

Charlie - smoke signal

Delta - none

Echo - other

<u>Line 8 - Patient's Nationality and Status</u> - patients' nationality and status. Use the following codes:

Alpha - US military

Bravo - US civilian

Charlie - non US military

Delta - non US civilian

Echo - enemy prisoner of war

<u>Line 9 - NBC Contamination</u> - whether the LZ has been contaminated with NBC agents. Use the following codes:

November - nuclear

Bravo - biological

Charlie - chemical

#### **Homework Questions: Aid Station**

- 1. Describe the Disease Non Battle Injury Report (DNBI). Information from the Sick Call log, broken down by the categories of injuries and illness for the unit. It is forwarded up the chain and collected for the major unit. This information can be used to track the spread of disease or identify injury trends.
- 2. List five requirements of the BAS in combat.

Conduct sick call

**Conduct Triage** 

Treat casualties to minimize mortality, prevent further injury, and stabilize for further evacuation.

Record all casualties received and treated, and report them to the appropriate unit section for preparation of casualty reports.

Provide temporary shelter in conjunction with emergency treatment.

Return patients to duty when possible.

Transfer evacuees from the BAS to ambulance, helicopter, or other evacuation transportation. Initiate treatment of combat stress casualties.

Maintain deployment health records (DHR) of battalion personnel.

Provide personnel replacement and medical re-supply for company level Hospital Corpsmen.

3. What types of items are found on a Table of Equipment (T/E)?

Items necessary for basic support of the organization and include:

Tentage

Vehicles

**Tools** 

Communication equipment

Nuclear, biological and chemical (NBC) gear

Office equipment and supplies

4. Which AMAL contains consumable supplies? List three. AMAL 636: IV solutions, Bandages, Medications

## **Homework Questions: MOUT**

- 1. Describe the characteristics of the terrain associated with MOUT. Military actions planned and conducted on a terrain where man-made structures impact the tactical options available to the commander. This terrain is a four-dimensional (air, buildings, streets, and subways) battlefield with considerable rubble, ready-made fortified fighting positions, and an isolating effect on all combatants.
- 2. Identify the predominant factors that lead to combat stress casualties in a MOUT environment.

Prolonged fear of sniper fire and hidden IEDs along with the repeated sight of the dead and dying

- 3. List three sources of infectious disease that are found in a MOUT environment. Animals, People, Water
- 4. Identify some events that may lead to complicated CASEVAC efforts in a MOUT environment.

Tight operating environments, explosions that trap patients inside buildings, vehicular crashes due to explosions, hostile fire or operator error.

# **Block Five Components of Field Medicine Review Questions**

- 1. What is the mission of the aid station? The overall mission of the aid station is to be the primary HSS source for a unit. The aid station is broken down into two separate missions:
- 1) Field/combat environment: Minimize the effect wounds, injuries, and diseases have on a unit's effectiveness, readiness and morale. Treatments such as surgical airways, administration of IV fluids and antibiotics, as well as stabilization of wounds and fractures are common.
- 2) Garrison: Keep the Marines assigned ready for deployment. As such, responsibilities include conducting sick-call, providing medical support during training, and undergoing continued medical training.
- 2. What are the six most commonly used methods of evacuation? Ambulatory, manual carries, litter evacuation, ground evacuation, air evacuation, or sea evacuation
- 3. What are the four categories of tactical triage? Minimal (green tag), Delayed (yellow tag), Immediate (red tag), and Expectant (black tag)
- 4. What are the degrees of burns? Superficial Burn (First-Degree Burn), Partial Thickness Burn (Second-Degree Burn), Full Thickness Burn (Third-degree Burn), Complete Burn (Fourth Degree Burn)
- 5. What does the acronym "HEADS" stand for?
  - H Headaches and/or Vomiting?
  - E Ear Ringing?
  - A Amnesia, altered consciousness, and/or loss of consciousness?
  - D Double vision and/or dizziness?
  - S Something feels wrong or is not right?
- 1. On the nine-line CASEVAC request, what information is on line six? Security of Pickup Site whether or not the enemy is near the LZ
- 2. What is the definition of urban warfare (MOUT)?

Those military actions planned and conducted on a terrain where man-made structures impact the tactical options available to the commander. This terrain is characterized as a four-dimensional (air, buildings, streets, and subways) battlefield with the following features:

- Considerable rubble.
- Ready-made fortified fighting positions.
- An isolating effect on all combatants.
- 3. Who are the two medical officers in an aid station group? Battalion Surgeon, Assistant Battalion Surgeon

4. What are some of the potential health threats of MOUT?

Combat in urban terrain and populations encountered can complicate ability of medical personnel to provide timely, sustainable support. Casualty rates are higher than in conventional battles, with explosions as the most frequent cause of injury. Small units are spread out, requiring adequate skill in self and buddy aid. Other threats in MOUT include: - Isolation and reduced response to casualties, Imposition of civilian casualties and refugees, Undefined lines of battle that delay medical treatment, Mass casualty/casualty overload situations, Communicable disease endemic to the area, Lack of water and sanitation, Combat stress, and NBC environment

- 5. What are the two methods used to estimate burn size? Rule of Nines (most common) and Rule of Palms
- 6. First aid and emergency care is the primary objective of which taxonomy of care level? First Responder
- 7. Restorative and rehabilitative care is the primary objective of which taxonomy of care level? Definitive Capability
- 8. Why are military blast casualties less likely to suffer injuries to the upper torso and head? They are more likely to wear protective gear.
- 9. What are the responsibilities of the aid station while in garrison?

  Maintain medical/dental readiness, conduct sick call, administration, supply, provide medical coverage as needed for training, provide training to non-medical personnel to enhance self/buddy aid and litter team responsibilities.
- 10. What is the most common form of injury in a terrorist bombing? Fragmentation injuries
- 11. When dealing with blast injuries, how can the absence of ruptured tympanic membranes help rule out other injuries?

Ear Injuries can occur from as little as 5-15 psi of overpressure, so absence of ruptured tympanic membrane indicates less severe overall injury.

- 12. What are the 2 categories of TBI? Primary Brain Injury, Secondary Brain Injury
- 13. What burn injuries are considered critical regardless of depth or TBSA affected? Inhalation, Partial-thickness over greater than 10% TBSA, Full-thickness in any age group, any burn involving face/hands/feet/genitalia/perineum/major joints, Electrical 9to include lightning), chemical burns, and all burns complicated by injuries of the respiratory tract/other soft tissue injuries/musculoskeletal injuries.
- 14. What are the six commonly used litters within the FMF?

  Talon Litter (most common), Standard Army Litter, Stokes Litter, Pole-less Non-rigid Litter,
  Miller (full body) Board, and Improvised Litter

- 15. What are the five CASEVAC priority levels? Urgent, Urgent Surgical, Priority, Routine, and Convenience
- 16. What are the five basic sections of the BAS? Internal Security, Triage, Treatment Area, Evacuation Area, Expectant Area
- 17. What are the two types of blast waves? Stress waves, sheer waves
- 18. Why might an electrical burn be underappreciated? Extent of tissue damage often does not accurately reflect the magnitude of injury, because most of the destruction of tissue occurs internally.
- 19. What are the special requirements of casualty evacuation in MOUT? Movement can be time consuming; tight operating environments require ground evacuation vehicles with heavy armor that can withstand small arms fire, RPGs and IEDs. Helo evacuation is difficult due to tight environment, and also because they are susceptible to small arms fire and RPGs.
- 20. What are the routine patient assessment procedures (sick call)? Check in, patient encounter, discharge, binnacle list, disease non-battle injury
- 21. What the symptoms of severe TBI? Prolonged unconscious state or coma lasts days/weeks/months, categories include: Coma, Vegetative State, Persistent, Minimally Responsive State, Locked-in Syndrome
- 22. When dealing with blast injuries, what is the most commonly affected body area? Limbs
- 23. What is the most common type of burn on the modern battlefield? Most common is thermal, as a result of exposure to flame weapons, incendiary weapons, munitions, or from explosions from fuel sources.