

## **ARECC Em-Comm LEVEL I STUDY GUIDE**

1-1 When does a communication emergency exist?

- A.  Whenever the public is at risk.
- B.  When there is an earthquake in your area and the public is inconvenienced.
- C.  When a critical communication system fails and the public is inconvenienced.
- D.  **When a critical communication system fails and the public is put at risk.**

1-2 Which of the following is it most important for an emcomm group to do at the end of an emergency communication operation?

- A.  **Review the effectiveness of its response.**
- B.  Take photos of the activity.
- C.  Call the local newspaper to schedule interviews.
- D.  Review the activities of the first responders.

1-3 Which of the following is **NOT** a responsibility of emergency communicators?

- A.  **Making demands on the agency being served.**
- B.  Having radios, frequencies and basic radio skills.
- C.  Being licensed and preauthorized for national and international communications.
- D.  Possessing emergency communication skills.

1-4 Which of the following describes the function of a Rapid Response Team (RRT)?

- A.  To handle large-scale emergencies over an extended period.
- B.  **To deploy a quick response in a very short time.**
- C.  To establish and operate a storm watch prior to any emergency.
- D.  To review the effectiveness of an emergency communication group.

1-5 In an emergency situation -- when a served agency asks you to forward an urgent message -- which one of the following methods would you NOT employ?

- A.  CB radio
- B.  Family radio

ARECC I INTRODUCTORY Em-Comm

- C.  **Informal, conversational grapevine**
- D.  The served agency's own radio system.

\*\*\*\*\*

2-1. Which of the following best describes your **main job** as an emergency communicator?

- A.  Dispatcher, organizing the flow of vehicles, personnel, and supplies.
- B.  Weather spotter.
- C.  **Radio operator, using Amateur or served agency radio systems.**
- D.  Resource coordinator, organizing the assignments of disaster relief volunteers.

2-2 Which of the following best describes the **role** of a modern emergency communicator?

- A.  You are strictly limited to communication tasks.
- B.  **You may be asked to serve any function that includes communication.**
- C.  You do anything a served agency asks.
- D.  You transmit and receive messages.

2-3 If you are asked by a served agency to perform a task that falls outside FCC rules, which of the following is a proper response?

- A.  Document the request, and then do what is asked.
- B.  Document the request, but refuse to do it.
- C.  Leave immediately.
- D.  **Discuss the situation with the served agency, and develop an alternative solution.**

2-4 In an emergency situation, which of the following is the most appropriate response that you as an emcomm group member can make to an inquiry from the press?

ARECC I INTRODUCTORY Em-Comm

- A.  Answer any question that you are asked.
- B.  Volunteer information and make yourself helpful to them.
- C.  **Refer all inquiries to the served agency's public information officer (PIO).**
- D.  Ignore them and hope they will go away.

2-5 Which of the following will most affect your relationship with a served agency?

- A.  Your radio and electronic equipment.
- B.  Your knowledge of FCC regulations.
- C.  **Your attitude.**
- D.  Your radio skills.

\*\*\*\*\*

3-1 What mode should be used to send a list of casualties?

- A.  VHF repeater system.
- B.  **A secure mode.**
- C.  Packet radio.
- D.  An HF net.

3-2 What types of messages are good to send by fax?

- A.  **High precision, lengthy and complex messages.**
- B.  Simple low-precision, and short messages.
- C.  Messages to many destinations simultaneously.
- D.  High detail color photographs.

3-3 What types of messages should be handled by a packet bulletin board system?

- A.  Time sensitive messages of immediate priority.
- B.  Low precision messages.
- C.  **Non-time-critical messages and reference material, when the sender and receiver cannot be available simultaneously.**
- D.  Messages to be "broadcast" to numerous stations.

ARECC I INTRODUCTORY Em-Comm

3-4 What is the pitfall that is common to telephone, cellular phone and trunked radio systems?

- A.  They do not take advantage of the benefits of Amateur Radio.
- B.  They are all difficult to use.
- C.  They are seldom available at shelters and public safety agencies.
- D.  **They all require the use of a complex central switching system that is subject to failure in a disaster situation.**

3-5 Which of the following is an example of an efficient communication?

- A.  A ham communicating a lengthy list of needed medical supplies over a voice net.
- B.  A lengthy exchange between two stations on a primary voice net channel being shared by a large number of users.
- C.  Typing out a digital message that "the delivery van containing the coffee has arrived at this location" on a high-precision packet link.
- D.  **Sending a shelter list on the office fax machine.**

\*\*\*\*\*

4-1. Which of the following best describes the ARES organizational structure?

- A.  ARRL -District-Section-County
- B.  **ARRL-Section-District-County**
- C.  ARRL -County-Region-Section
- D.  ARRL -State - Region-Section

4-2. Which of the following best describes the ARES chain of command within a Section?

- A.  Section Manager-District Emergency Coordinator-Emergency Coordinator, Assistant Emergency Coordinator -Section Emergency Coordinator.
- B.  Section Emergency Coordinator- Section Manager-District Emergency

ARECC I INTRODUCTORY Em-Comm

Coordinator-Emergency Coordinator-Assistant Emergency Coordinator.

C.  **Section Manager-Section Emergency Coordinator-District Emergency Coordinator-Emergency Coordinator-Assistant Emergency Coordinator.**

D.  Section Manager-Section Emergency Coordinator-Emergency Coordinator District Emergency Coordinator-Assistant Emergency Coordinator.

4-3 Which of the following best describes a Level 2 RRT?

A.  Is a first responder in any emergency.

B.  Operates a few strategically placed stations within the first hour of an emergency.

C.  **Responds within a few hours and is prepared with longer term (72 hour) jump kits.**

D.  Is always affiliated with SATERN.

4-4 Which of the following best describes an ARES Mutual Assistance Team (ARESMAT)?

A.  Is generally available for tasks lasting less than one day.

B.  Is always from the local area.

C.  **An ARES team who are willing and able to travel to another area.**

D.  Is called out only when the President suspends regular Amateur operations.

4-5 Which of the following is true about REACT?

A.  REACT is a part of ARRL.

B.  REACT does not have an MOU with ARRL.

C.  REACT's mission is more restricted than that of ARRL.

D.  **REACT's resources include CB, Amateur Radio, GMRS, FRS, and MURS.**

\*\*\*\*\*

When emcomm team members are called upon to operate on Public Safety Radio

ARECC I INTRODUCTORY Em-Comm

Systems, which of the following may they **NOT** do?

- A.  Use special "10 codes".
- B.  Use the served agency's standard operating procedure.
- C.  Use the phonetic alphabet employed by the served agency.
- D.  **Engage in casual conversations.**

5-2 Which of the following is another trademarked version of Continuous Tone Coded Squelch System (CTCSS)?

- A.  Private Guard.
- B.  Private Channel.
- C.  Line Guard.
- D.  **Private Line.**

5-3 Which of the following best describes the newer Emergency Medical Radio Services?

- A.  **Ten UHF duplex frequencies and seven VHF simplex channels.**
- B.  Ten simplex VHF frequencies with pulsed tone encoders for each hospital.
- C.  Seven UHF duplex frequencies and ten VHF simplex channels.
- D.  The MedStar system with channels Med 1 through Med 10.

5-4 Which one of the following statements is true about trunked systems?

- A.  Trunked systems are able to operate without the use of computer controllers.
- B.  The number of frequencies on a trunked system is always a multiple of 10.
- C.  **Amateur radio does not currently use this type of system.**
- D.  Most trunked systems have ample reserve capacity

5-5 When emcomm teams work with a served agency, a number of assumptions are made. Which of the following assumptions are true?

ARECC I INTRODUCTORY Em-Comm

- A.  Amateur radio operators can operate any communication equipment they encounter.
- B.  There are NO significant differences between amateur radio operating procedures and the procedures used by the served agencies.
- C.  **Served agencies must provide training if amateur operators are to be used effectively.**
- D.  All phonetic alphabets are essentially the same and are thus interchangeable.

\*\*\*\*\*

6-1 In emergency communication, which one of the following is NOT true?

- A.  **Listening is only about 10% of communication.**
- B.  Any message can have huge and unintended consequences.
- C.  A message that is never delivered can yield disastrous results.
- D.  Listening also means avoiding unnecessary communications.

6-2 Which of the following procedures is best for using a microphone?

- A.  Hold the microphone just off the tip of your nose.
- B.  **Talk across, rather than into, your microphone.**
- C.  Shout into the microphone to insure that you are heard at the receiving end.
- D.  Whenever possible, use voice operated transmission (VOX).

6-3 In emergency communications, which of the following is true?

- A.  **Never use "10 codes" on Amateur Radio.**
- B.  Use "Q signals" on served-agency radio systems.
- C.  Under NO circumstances use "Q" signals on a CW net.
- D.  Use technical jargon when you feel that it is appropriate.

6-4 Which of the following is always true of a tactical net?

ARECC I INTRODUCTORY Em-Comm

- A.  Personal call signs are never used.
- B.  Personal call signs are always preferred over tactical call signs (such as "Aid 3").
- C.  Personal call signs are required at ten-minute intervals during a conversation **or** at the end of your last transmission.
- D.  **Personal call signs are required at ten-minute intervals during a conversation and at the end of your last transmission.**

6-5 Which of the following is the most efficient way to end an exchange on a tactical net?

- A.  Say "Over".
- B.  Say "Roger".
- C.  **Give your FCC call sign.**
- D.  Ask Net Control if there are any further messages for you.

\*\*\*\*\*

7-1 Which of the following best describes a net?

- A.  A group of stations who purposely frequent the airwaves.
- B.  **A group of stations who gather on one frequency with a purpose.**
- C.  A group of stations who occasionally meet on various frequencies.
- D.  A group of stations who propose to meet at a particular time.

7-2 What is a major difference between an "open net" and a "directed net"?

- A.  **The presence or absence of full control by a Net Control Station.**
- B.  The presence or absence of formal traffic.
- C.  The type of radio traffic on the net.
- D.  The approval or sanction of net operations by the FCC.

7-3 Which of the following is true of a "tactical net"?



ARECC I INTRODUCTORY Em-Comm

- A.  The net is used to acquire volunteers and to handle assignments.
- B.  The net is used for the coordination of activities associated with future emergencies.
- C.  **The net may be directed or open, but will usually have a Net Control Station.**
- D.  The net handles only formal traffic.

7-4 When should you check in to an emergency net?

- A.  When you want to comment on something that someone else has said.
- B.  When you are tired of listening.
- C.  **When you first join the net and when you have messages, questions or relevant information.**
- D.  When you first join the net and when you would like to send greetings to one of the participating stations.

7-5 What should you do if someone in authority asks you to move your station?

- A.  **Do so immediately without argument and report to the NCS as soon as possible.**
- B.  Call the NCS for advice before moving.
- C.  Tell the person in authority how difficult it is for you to comply.
- D.  Demand a written order before complying.

\*\*\*\*\*

8-1 The preamble to an ARRL Radiogram message contains a block called "Precedence". Which of the following represents the correct precedence for an EMERGENCY message?

- A.  "URGENT".
- B.  "U".
- C.  **"EMERGENCY".**
- D.  "E".

ARECC I INTRODUCTORY Em-Comm

8-2 The preamble to an ARRL Radiogram message contains a block called "Handling Instructions." What is the meaning of the handling instruction "HXE"?

- A.  **Delivering station to get and send reply from addressee.**
- B.  Report date and time of delivery to originating station.
- C.  Cancel message if not delivered within (X) hours of filing time.
- D.  Collect telephone delivery authorized.

8-3 ARRL Radiogram messages contains a block called "Time Filed". Which of the following is true of entries in that block?

- A.  This field is always completed.
- B.  Time entries are always Universal Coordinated Time.
- C.  **During emergencies "local time" is used.**
- D.  During emergencies "local time" along with the local date is used.

8-4 ARRL Radiogram messages contains a block called "The Check." Which of the following is true of entries in that block?

- A.  The check contains a count of the words in the entire message.
- B.  The check contains a count of the words in the preamble and the text of the message.
- C.  The check contains a count of the words in the preamble, address and text of the message.
- D.  **The check contains a count of the words in the text of the message.**

8-5 Which of the following statements is true of punctuation within an ARRL Radiogram?

- A.  Punctuation is always helpful; it should be used whenever possible.
- B.  Punctuation is rarely helpful; it should never be used.
- C.  **Punctuation should be used only when it is essential to the meaning of the message.**
- D.  The comma and apostrophe are the most common punctuation signs used in

ARECC I INTRODUCTORY Em-Comm

NTS messages.

\*\*\*\*\*

9-1 As part of an EMCOMM group handling message traffic in an emergency, you are asked to forward a message that contains typographical errors. Which of the following is your best course of action?

- A.  Delay sending the message.
- B.  **Forward the message exactly as received.**
- C.  Return the message to the originating station.
- D.  On your own, correct the error in the message and forward it.

9-2 As part of an EMCOMM net handling message traffic in an emergency, you are asked to forward a message in a non-standard format. Which of the following is your best course of action?

- A.  Delay sending the message until you have conferred with the originator.
- B.  Return the message to the originator.
- C.  On your own, rewrite the message in proper format and forward it.
- D.  **Forward the message exactly as received.**

9-3 You have been asked to send an ARRL Radiogram dealing with birthday greetings. Which of the following is the correct format for the message?

- A.  "ARRL 46"
- B.  "ARL 46"
- C.  **"ARL FORTY SIX"**
- D.  "ARRL FORTY SIX"

9-4 When delivering an ARRL numbered radiogram, which should be done?

- A.  Deliver the message exactly as received.
- B.  Deliver the message exactly as received but add your own written explanation.

ARECC I INTRODUCTORY Em-Comm

- C.  **Decode the message into plain language before delivery.**
- D.  Deliver the message exactly as received but add your own verbal explanation.

9-5 During an emergency, service messages should only be sent for which of the following categories of message?

- A.  Emergency, Priority, Welfare and Routine
- B.  Emergency, Priority and Welfare
- C.  Priority and Welfare
- D.  **Emergency and Priority**

\*\*\*\*\*

10-1 Which of the following best describes the responsibilities of the NCS in an emcomm operation?

- A.  The NCS is responsible for all aspects of the emcomm operation.
- B.  The NCS is responsible for station check in.
- C.  **The NCS is responsible for all aspects of the net's operation.**
- D.  The NCS is responsible for writing the net script.

10-2 As an acting "fill in" NCS, which of the following practices would you avoid?

- A.  Try to run an existing net much as the previous NCS did.
- B.  Handle messages in order of precedence: Emergency-Priority-Welfare.
- C.  Keep notes as you go along: do not let your log fall behind.
- D.  **Ask stations to pass messages on the main net frequency whenever possible.**

10-3 Which of the following is true of a liaison station?

- A.  The liaison station mainly relays bulletins authorized by the served agency to all stations on the net.
- B.  A liaison station passes messages only on a pre-set schedule.
- C.  A liaison station handles only one-way traffic.
- D.  **A liaison station passes messages between two nets.**

ARECC I INTRODUCTORY Em-Comm

10-4 Packet modes include which of the following groups?

- A.  **FM packet, HF packet and PACTOR.**
- B.  HF packet, PACTOR and PSK31.
- C.  PACTOR, PSK31 and RTTY.
- D.  PSK31, RTTY and PACTOR.

10-5 You are the NCS of a net involved in an emcomm operation and you notice that some other station is intentionally interfering with your net. Which of the following represents your best course of action?

- A.  Shut down the net and go home.
- B.  Address the interfering station directly and inform them of the error of their ways.
- C.  **Move the net to an alternate frequency.**
- D.  Contact the EOC and continue to operate.

\*\*\*\*\*

11-1 What do the letters "ICS" stand for?

- A.  International Correspondence School
- B.  **Incident Command System**
- C.  Institutional Control System
- D.  Internal Control Sequence

11-2 What is ICS?

- A.  **A management tool for coordinating the resources of several agencies within a single command structure.**
- B.  fixed and unchangeable system for managing an incident.
- C.  A means of subverting the normal command structure within an agency or department.
- D.  A management system restricted to use by government agencies and

ARECC I INTRODUCTORY Em-Comm

departments.

11-3 The ICS has two interrelated parts. What are they?

- A.  A mission statement and management objectives.
- B.  **Management by objectives and organizational structure.**
- C.  Organizational structure and a financial plan.
- D.  A financial plan and an operational plan.

11-4 Aside from the Incident Commander, there are four other major operating sections within an ICS. What are they?

- A.  Planning, Operations, Logistics and Public Relations
- B.  Personnel, Planning, Operations and Finance/Administration
- C.  **Planning, Operations, Logistics, and Finance/Administration**
- D.  Payroll, Finance/Administration, Logistics and Operations

11-5 What is an emcomm group's relationship to the ICS structure during an incident?

- A.  The emcomm group always serves within the Logistics area.
- B.  **The emcomm group may or may not be a formal part of the ICS structure.**
- C.  The emcomm group always serves the Task Force leader directly.
- D.  The emcomm group always serves the Incident Commander directly.

\*\*\*\*\*

12-1 Of the following, which is the **best** reason for preparing a jump kit in advance?

- A.  **You will not leave something important at home or waste valuable time.**
- B.  You are spared the added expense of shopping for something after an emergency arises.
- C.  You can be fully rested on the day of the emergency.
- D.  You can test the batteries on your hand held VHF before leaving home.

ARECC I INTRODUCTORY Em-Comm

12-2 Which of the following would you omit from a jump kit prepared for a 12-hour deployment?

- A.  Hand held VHF or dual band radio.
- B.  Spare rechargeable batteries for the hand held radio.
- C.  High energy snacks.
- D.  **Camp cot and tent.**

12-3 Among the following, which are the **most** important items of information to include in your jump kit?

- A.  **ID cards and other authorizations.**
- B.  Field cookbook.
- C.  Automobile repair manual.
- D.  Instruction book for your chain saw.

12-4 Among the following, which is the **least** important item of personal gear to include in your jump kit?

- A.  Frequency lists and net schedules.
- B.  Contact information for other members of your group, EC, DEC & SEC.
- C.  Key phone numbers, email and Internet addresses.
- D.  **A deck of playing cards.**

12-5 If you are assigned in advance to a particular location for emcomm operations, what is the **least** important thing to know in advance?

- A.  The escape routes from the facility itself.
- B.  **The regular business hours maintained at the facility.**
- C.  The availability of radio equipment at the facility.
- D.  The location of your operating position and the planned location of the antenna.

\*\*\*\*\*

ARECC I INTRODUCTORY Em-Comm

13-1 In considering power sources for HF radios, which of the following is true?

- A.  DC to AC inverters can be used to power HF radios.
- B.  Standard automotive batteries last longer than deep cycle batteries.
- C.  AC powered HF radios are suitable for all emcomm use
- D.  **Whenever possible, use deep cycle batteries to power HF radios.**

13-2 In considering antennas for VHF/UHF radios, which is the best rule?

- A.  High transmitter power is more important than having a good antenna.
- B.  Transmitter power and antenna selection are equally important.
- C.  **A good antenna is more important than high transmitter power.**
- D.  If properly used, "rubber ducky" antennas can compensate for low transmitter power.

13-3 Beam antennas have many advantages. Which of the following is the best reason for selecting a beam antenna?

- A.  They are inexpensive and easy to transport.
- B.  They are easy to erect and very stable in storm conditions.
- C.  They are compact and easy to store.
- D.  **They maximize desired signals and reduce interference from other stations.**

13-4 Which of the following statements about battery charging is true?

- A.  The optimum charging voltage for lead acid batteries should be about two volts less than the battery's rated voltage.
- B.  **The optimum charging voltage for 12-volt lead acid batteries should be about two volts more than the battery's rated voltage.**
- C.  SLA or "gel cell" are ordinarily recharged very rapidly.
- D.  Deep cycle batteries require only a short time to recharge fully.

13-5 In comparing the 30 amp Anderson power pole connector with the 10 amp Molex connector, which of the following statements is true?



ARECC I INTRODUCTORY Em-Comm

- A.  The Molex is better for high power applications.
- B.  The Molex is better for heavy duty cycles.
- C.  The Anderson handles only low power applications.
- D.  **The Anderson is capable of being plugged and unplugged a greater number of times without deterioration.**

\*\*\*\*\*

14-1 When a telephone tree is activated, what should be done when a caller cannot reach one of their assigned contacts?

- A.  **Call all those assigned to the person who cannot be reached.**
- B.  Call the liaison to report the difficulty.
- C.  Ignore that person and go on to the next assigned contact.
- D.  Stop calling at that point to "break" the tree.

14-2 What is an "emcomm activation liaison" for a served agency?

- A.  A phone answering service employed by the agency.
- B.  An automatic paging service employed by the agency.
- C.  An agency employee who arrives early to turn on the equipment.
- D.  **A member of an emcomm group who is alerted first by the agency.**

14-3 Regarding emcomm alerting systems, which of the following is true?

- A.  All systems are equally useful.
- B.  As an alerting system, commercial paging is clearly superior to all others.
- C.  As an alerting system, the telephone tree is clearly superior to all others.
- D.  **It is best not to rely exclusively upon any single alerting system.**

14-4 Which of the following is true of e-mail as an alerting system?

- A.  With e-mail, emcomm members can be reached immediately anywhere they happen to be.
- B.  With e-mail, high-speed Internet connections guarantee that messages will be

ARECC I INTRODUCTORY Em-Comm

received very quickly.

- C.  **E-mail is best used as a back up alerting system.**
- D.  With e-mail, the CTCSS tone assures that all members will be quickly alerted.

14-5 Which of the following statements is true about the NCS?

- A.  The NCS is so important that it should never be assigned on a temporary basis.
- B.  The NCS is so important that temporary assignment as NCS should be limited to only one member of the group.
- C.  **The NCS is so important that several members should be trained to take on the duties until the assigned NCS checks in.**
- D.  The first member to sign on to a net is always the NCS for the duration of the incident.

\*\*\*\*\*

15-1 Suppose that you have been activated during an emergency and have been told to report to an agency that is different from your usual assignment. Which of the following is your best course of action upon arriving at the new agency?

- A.  Take charge and set up a communication center right away.
- B.  Check around the site and find the best place to set up a communication center.
- C.  Ask the receptionist about the best location for setting up a communication center.
- D.  **Introduce yourself to the person in charge as the emergency communicator assigned to that location.**

15-2 You are to brief the staff of a served agency about privacy on Amateur Radio. Which of the following is the most accurate statement you can make?

- A.  Speaking quietly into a microphone assures that no one will overhear private information.
- B.  It is permissible to use code words to assure privacy on the air.
- C.  There is no privacy with Amateur Radio voice communications.
- D.  **There are NO methods by which the security of any message can be assured on Amateur Radio.**

ARECC I INTRODUCTORY Em-Comm

15-3 Suppose that you have been assigned to a site and the emergency ends. If the site manager asks you to close your station, what is your best course of action?

- A.  Do as the site manager tells you and close down your station immediately.
- B.  Ignore the site manager and await further instructions from higher authority.
- C.  **Check in with the emcomm manager or NCS before closing down.**
- D.  Have your emcomm manager or NCS speak directly with the site manager before you take any action.

15-4 In preparing to leave a site after an emcomm event, which of the following actions is *NOT* appropriate.

- A.  Clean up any mess, discard trash, and move furniture back to its original position.
- B.  **Unpack all desk items that you have placed in boxes and put them back in their original locations.**
- C.  Thank all of those who worked with you.
- D.  Repair any relationships that may have been strained during the event.

15-5 A debriefing should be scheduled after each emcomm event. What is the primary purpose of the debriefing?

- A.  It provides an occasion to swap "war stories."
- B.  It serves as a legitimate forum for complaints.
- C.  **It serves to improve future emcomm activities.**
- D.  It provides an occasion for resolving interpersonal issues.

\*\*\*\*\*

16-1 Which of the following will NOT limit VHF simplex range?

- A.  Terrain.
- B.  Output Power.
- C.  Antenna Gain.
- D.  **Digipeaters.**

16-2 Which of the following actions will NOT improve simplex reception?

ARECC I INTRODUCTORY Em-Comm

- A.  Increase the antenna height.
- B.  **Switch to a lower-gain, non-directional antenna.**
- C.  Increase transmitter output power at both stations.
- D.  Move the antenna away from obstructions.

16-3 Which of the following is true about a simplex repeater?

- A.  **The FCC rules do not permit unattended operation of simplex repeaters.**
- B.  They work best in the "cross band repeater" mode.
- C.  They require the use of two radios.
- D.  Is the same as a "human repeater."

16-4 Which of the following is NOT an appropriate served agency assignment for an emcomm volunteer?

- A.  Field damage assessment and reporting.
- B.  Driving a supply delivery vehicle.
- C.  **Typing inventory lists and filing memos.**
- D.  Gathering weather data and reporting conditions.

16-5 Which of the following is a good means of dealing with stress during an emcomm event?

- A.  Take every comment personally.
- B.  Pay no attention to other team members; let them handle their own problems.
- C.  To reduce personal stress, insist on working more than your own shift.
- D.  **Prioritize your actions - the most important and time sensitive ones come first.**

\*\*\*\*\*

17-1 Which of the following statements concerning water purification is FALSE?

- A.  Boiling water for a full 5 minutes will kill most harmful bacteria.
- B.  Boiling water to purify it can leave it with a flat taste.

ARECC I INTRODUCTORY Em-Comm

- C.  Filters may or may not remove harmful bacteria.
- D.  **Purification tablets will remove bacteria and particulate matter (dirt).**

17-2 Which of the following is true about using chlorine to purify water?

- A.  It is best to use four to six drops of chlorine per gallon of water.
- B.  Adding the proper amount of chlorine to water will improve the taste.
- C.  Adding the proper amount of chlorine to water will kill cysts like Giardia.
- D.  **It is best to use 16 drops of plain chlorine per gallon of water.**

17-3 Which of the following is true about the personal gear you bring to a long-term incident?

- A.  Include several pairs of warm cotton socks.
- B.  Lightweight summer clothing is all you will ever need.
- C.  **Keep spare eyeglasses or safety glasses/goggles in a hard-shell, felt-lined storage case.**
- D.  As a volunteer communicator, you will need to bring specialized protective clothing.

17-4 Many disaster assignments are in unsafe places. Which of the following is true about such locations?

- A.  Always plan an escape route from buildings and hazardous areas.
- B.  **Always plan more than one escape route from buildings and hazardous area.**
- C.  The only dangers that you need be concerned with in any location are fire, flood, and falling debris.
- D.  Dams, bridges and buildings can generally be thought of as "safe zones."

17-5 Which of the following statements about safety and survival is true?

- A.  The mission takes priority over everything else.
- B.  A person requires at least four gallons of water per day just for drinking.

ARECC I INTRODUCTORY Em-Comm

- C.  If caffeine keeps you awake, stop drinking caffeinated beverages at least ten minutes before going to bed.
- D.  **Your personal safety and well-being are a higher priority than the mission.**

17-6 Which of the following best defines an MRE package?

- A.  Mainly Radio Equipment.
- B.  Mostly Random Equipment.
- C.  **Meals, Ready to Eat.**
- D.  Meals, Rarely Eaten.

\*\*\*\*\*

18-1 Which can you NOT use to identify your transmissions on Citizens' Band radio?

- A.  **Your Amateur call, if you were licensed when 11-meters was an Amateur allocation.**
- B.  With your old Class D call sign, if you had one.
- C.  A self-assigned identifier.
- D.  A tactical call sign.

18-2 Which is the best course of action for summoning help via CB?

- A.  Use channel 1, since the lowest frequency has the longest ground-wave signal.
- B.  **Call at regular intervals on Channels 9 and 19 for a response.**
- C.  Call only on channel 9, since it is designated for assistance and emergencies.
- D.  Say "Break-Break" or "MAYDAY" on any channel.

18-3 Which is **NOT** an advantage of using Family Radio Service (FRS) systems?

- A.  They are readily available at low cost.
- B.  Operation of FRS radios is simple and requires little training.
- C.  There is no requirement for licensing to use FRS.
- D.  **Low transmitter power**

ARECC I INTRODUCTORY Em-Comm

18-4 Who may currently license a GMRS system with the FCC?

- A.  A privately owned business, for routine communications.
- B.  **An individual, for family and personal use.**
- C.  A charitable institution, for benevolent purposes.
- D.  A local repeater club.

18-5 Which is NOT true of the MURS?

- A.  A station license is not required.
- B.  Power output is limited to 2 watts
- C.  Radios operate in the VHF band.
- D.  **Mobiles may use up to 20 watts output power.**

\*\*\*\*\*

• 19-1 What is the first thing that happens after a disaster has occurred?

- A.  The Federal Emergency Management Agency arrives on the scene.
- B.  The Red Cross and Salvation Army arrive with food and bedding for victims.
- C.  **Massive increase in the volume of traffic on public-safety radio channels.**
- D.  The press provides up to date and accurate information to the public.

19-2 Which of the following statements is *NOT* true of interagency communication?

- A.  Many agencies use incompatible radio systems.
- B.  Many agencies are reluctant to use each other's radio system.
- C.  **Agencies all use the same radio systems and frequencies.**
- D.  Amateur Radio can be used to link agencies.

19-3 In the first 72 hours of a disaster situation, where is the greatest concentration of relief effort to be found?

ARECC I INTRODUCTORY Em-Comm

- A.  **Urban areas.**
- B.  Suburban areas.
- C.  Rural areas.
- D.  Outside the affected area.

19-4 Which organization handles health and welfare messages on behalf of the victims?

- A.  ARES.
- B.  RACES.
- C.  National Weather Service.
- D.  **American Red Cross.**

19-5 What is the usual situation in a disaster during the initial 72 hours?

- A.  **The disaster area remains in virtual isolation.**
- B.  The disaster is over and everybody can go home.
- C.  A few victims still need assistance.
- D.  Communication systems are back to normal.

\*\*\*\*\*

20-1 Which of the following BEST describes where you should be located when in the vicinity of a HazMat incident?

- A.  **Far away enough to ensure your safety.**
- B.  Downhill and downwind.
- C.  Close enough to read the numbers on any placards with your naked eyes.
- D.  Alongside emergency responders wearing exposure suits.

20-2 Which federal agency is responsible for warning the public about hazardous materials containers and shippers?

- A.  Federal Emergency Management Agency.
- B.  Federal Response Plan.



ARECC I INTRODUCTORY Em-Comm

- C.  National Communications System.
- D.  **Department of Transportation.**

20-3 Before transmitting in the area of a HazMat incident what should you always do?

- A.  First identify the agents by reading the placard or container labels.
- B.  **Be far enough away so that no vapors or fumes are present.**
- C.  Wait to report the incident until police or fire officials have arrived.
- D.  Take action to stop or contain any agents that might be leaking.

20-4 Which information will give responding authorities the most useful information?

- A.  Placard color
- B.  Icon types
- C.  Warning labels
- D.  **Four-digit numbers**

20-5 Gasoline tankers filling the neighborhood gas station's underground tanks are identified with a placard bearing which of the following?

- A.  **1203**
- B.  1993
- C.  2003
- D.  2706

\*\*\*\*\*

21-1 When is it permissible to utilize channel FM 22?

- A.  At anytime after making an initial call on FM 16?
- B.  Whenever channel FM 9 or FM 16 are busy.
- C.  **Only when directed by the Coast Guard.**
- D.  At no time; it is for Coast Guard use only

21-2 What should you do if you hear an unanswered marine distress call?

ARECC I INTRODUCTORY Em-Comm

- A.  Contact the nearest Coast Guard facility and advise them of the call.
- B.  Answer the caller immediately and ask what the emergency is
- C.  Get in your own boat and attempt a rescue.
- D.  **Listen for a response. If none, respond and gather all information possible and then contact the nearest Coast Guard facility**

When must you identify yourself on VHF-FM marine radio?

- A.  Only on the initial call
- B.  Only on the initial call and the final call
- C.  Only on the original call and then every ten minutes.
- D.  **On all transmissions.**

21-4 Which vessels operate MW/HF SSB radios?

- A.  Any vessel that wants to
- B.  **Only sea-going vessels that operate outside the range of VHF-FM radios.**
- C.  Only those vessels that operate offshore and have a VHF-FM marine radio.
- D.  Only those vessels that have an Amateur Radio operator aboard

21-5 Which channel(s) may be used for calling another vessel?

- A.  FM 83
- B.  FM 9
- C.  FM 16
- D.  **Both FM 9 and FM 16**

\*\*\*\*\*

22-1 Which of the following best describes your purpose as an emergency communicator?

- A.  To operate the radio.
- B.  To coordinate communications for the EOC.

ARECC I INTRODUCTORY Em-Comm

- C.  **To provide accurate and rapid transfer of information from one place to another.**
- D.  To provide internal communication support to one (and only one) responding agency.

22-2 Which of the following best describes tactical messages?

- A.  They are high precision and time critical.
- B.  **They are low precision and time critical.**
- C.  They are point-to-point and NOT time critical.
- D.  They are point-to-multipoint and low precision.

22-3 Long lists and detailed messages are best handled by which of the following modes?

- A.  Voice or CW
- B.  **Fax or digital**
- C.  CW or digital
- D.  Phone or fax

22-4 During an emergency, you are using voice transmissions to pass messages. Which of the following "guidelines" should govern your action if you were asked to transmit the names and addresses of victims?

- A.  Transmit the information exactly as presented to you.
- B.  Use a pre-established code to transmit the information.
- C.  **If absolute privacy is required, do not transmit the information by Amateur Radio.**
- D.  Switch to a digital mode and be assured of complete privacy.

22-5 Which of the following PSK31 modes has an error correction feature?

- A.  BPSK
- B.  **QPSK**
- C.  RPSK

D.  SPSK

\*\*\*\*\* 23-1

## ARECC I INTRODUCTORY Em-Comm

Which of the following was NOT recommended as a means of practicing actual emcomm skills?

- A.  Regularly scheduled nets
- B.  On-air training sessions
- C.  **Discussion groups and lectures**
- D.  Public service events

23-2 What is the purpose of the next course in this series (ARECC Level II)?

- A.  To reinforce the skills and knowledge presented in ARECC Level I.
- B.  To provide training for prospective Emergency Operation Center Managers.
- C.  **To prepare individuals for the jobs of NCS and Net Manager.**
- D.  To prepare individuals for the jobs of of DEC or SEC.

23-3 What is the purpose of the third course in this series (ARECC Level III)?

- A.  To reinforce the skills and knowledge presented in ARECC Level II.
- B.  To provide training for prospective Emergency Operation Center Managers.
- C.  To prepare individuals for the jobs of NCS and Net Manager.
- D.  **To prepare individuals for management level emcomm positions.**