T类业余无线电台操作证书考试题库 (共407道)

T1 COMMISSION'S RULES
委员会规则

T1A Purpose and permissible use of the Amateur Radio Service; Operator/primary station license grant; Meanings of basic terms used in FCC rules; Interference; RACES rules; Phonetics; Frequency Coordinator
业余无线电服务的目的和允许使用；运营商/主站许可证授予；FCC规则中使用的基本术语的含义；干扰种族规则；语音学；频率协调器

T1A01. Which of the following is part of the Basis and Purpose of the Amateur Radio Service?
以下哪项是业余无线电服务的基础和目的的一部分?

A. Providing personal radio communications for as many citizens as possible ✗
为尽可能多的公民提供个人无线电通信
B. Providing communications for international non-profit organizations ✗
为国际非营利组织提供通信
C. Advancing skills in the technical and communication phases of the radio art ✓
在无线电艺术的技术和传播阶段提高技能
D. All these choices are correct ✗
所有这些选择都是正确的

T1A02. Which agency regulates and enforces the rules for the Amateur Radio Service in the United States?
哪个机构管理和执行美国业余无线电服务的规则?

A. FEMA ✗
B. Homeland Security ✗
国土安全部
C. The FCC ✓
FCC
D. All these choices are correct ✗
所有这些选择都是正确的

T1A03. What do the FCC rules state regarding the use of a phonetic alphabet for station identification in the Amateur Radio Service?
关于在业余无线电服务中使用拼音字母进行电台识别，FCC规则规定了什么?

A. It is required when transmitting emergency messages ✗
发送紧急信息时需要
B. It is encouraged ✓
鼓励
C. It is required when in contact with foreign stations ✗
与国外电台接触时需要
D. All these choices are correct ✗
所有这些选择都是正确的

T1A04. How many operator/primary station license grants may be held by any one person?
一个人可以持有多少运营商/主站许可证?

A. One ✓
一
B. No more than two ✗
不超过两个
C. One for each band on which the person plans to operate ✗
每个乐队一个
D. One for each permanent station location from which the person plans to operate ✗
一个用于人员计划操作的每个永久性台站位置

T1A05. What proves that the FCC has issued an operator/primary license grant?
什么证明FCC已经颁发了运营商/主要许可证?

A. A printed copy of the certificate of successful completion of examination ✗
考试合格证书复印件
B. An email notification from the NCVEC granting the license ✗
NCVEC授予许可的电子邮件通知
C. The license appears in the FCC ULS database ✓
许可证出现在FCC ULS数据库中
D. All these choices are correct ✗
所有这些选择都是正确的

T1A06. What is the FCC Part 97 definition of a beacon?
FCC第97部分对信标的定义是什么?

A. A government transmitter marking the amateur radio band edges ✗
标记业余无线电频带边缘的政府发射机
B. A bulletin sent by the FCC to announce a national emergency ✗
联邦通信委员会发布的公告，宣布国家进入紧急状态
C. A continuous transmission of weather information authorized in the amateur bands by the National Weather Service ✗
由国家气象局授权在业余波段连续传输天气信息
D. An amateur station transmitting communications for the purposes of observing propagation or related experimental activities ✓
为观测传播或相关实验活动而传输通信的业余电台

T1A07. What is the FCC Part 97 definition of a space station?
FCC第97部分对空间站的定义是什么?

A. Any satellite orbiting Earth ✗
任何绕地球运行的卫星
B. A manned satellite orbiting Earth ✗
绕地球运行的载人卫星
C. An amateur station located more than 50 km above Earth's surface ✓
位于地球表面上方50多公里处的业余空间站
D. An amateur station using amateur radio satellites for relay of signals ✗
利用业余无线电卫星进行信号中继的业余电台

T1A08. Which of the following entities recommends transmit/receive channels and other parameters for auxiliary and repeater stations?
以下哪个实体建议辅助站和中继站使用发射/接收信道和其他参数?

A. Frequency Spectrum Manager appointed by the FCC ✗
FCC任命的频谱经理
B. Volunteer Frequency Coordinator recognized by local amateurs ✓
当地业余爱好者认可的志愿者频率协调员
C. FCC Regional Field Office ✗
FCC区域现场办公室
D. International Telecommunication Union ✗
国际电信联盟

T1A09. Who selects a Frequency Coordinator?
谁选择频率协调员?

A. The FCC Office of Spectrum Management and Coordination Policy ✗
FCC频谱管理和协调政策办公室
B. The local chapter of the Office of National Council of Independent Frequency Coordinators ✗
国家独立频率协调员委员会办公室地方分会
C. Amateur operators in a local or regional area whose stations are eligible to be repeater or auxiliary stations ✓
本地或地区的业余运营商，其站点有资格成为中继站或辅助站
D. FCC Regional Field Office ✗
FCC区域现场办公室

T1A10. What is the Radio Amateur Civil Emergency Service (RACES)?
什么是无线电业余民事应急服务（RACES）?

A. A radio service using amateur frequencies for emergency management or civil defense communications ✗
使用业余频率进行应急管理或民防通信的无线电服务
B. A radio service using amateur stations for emergency management or civil defense communications ✗
使用业余电台进行应急管理或民防通信的无线电服务
C. An emergency service using amateur operators certified by a civil defense organization as being enrolled in that organization ✗
使用经民防组织认证为该组织注册的业余操作员的紧急服务
D. All these choices are correct ✓
所有这些选择都是正确的

T1A11. When is willful interference to other amateur radio stations permitted?
什么时候允许故意干扰其他业余电台?

A. To stop another amateur station that is breaking the FCC rules ✗
阻止另一个违反FCC规则的业余电台
B. At no time ✓
任何时候都不可以
C. When making short test transmissions ✗
进行短测试传输时
D. At any time, stations in the Amateur Radio Service are not protected from willful interference ✗
在任何时候，业余无线电服务中的电台都不会受到故意干扰的保护

T1B Frequency allocations; Emission modes; Spectrum sharing; Transmissions near band edges; Contacting the International Space Station; Power output
频率分配；排放模式；频谱共享；频带边缘附近的传输；联系国际空间站；功率输出

T1B01. Which of the following frequency ranges are available for phone operation by Technician licensees?
以下哪个频率范围可供技术人员持牌人进行电话操作?

A. 28.050 MHz to 28.150 MHz ✗
28.050 MHz至28.150 MHz
B. 28.100 MHz to 28.300 MHz ✗
28.100 MHz至28.300 MHz
C. 28.300 MHz to 28.500 MHz ✓
28.300 MHz至28.500 MHz
D. 28.500 MHz to 28.600 MHz ✗
28.500兆赫至28.600兆赫

T1B02. Which amateurs may contact the International Space Station (ISS) on VHF bands?
哪些业余爱好者可以通过甚高频波段联系国际空间站?

A. Any amateur holding a General class or higher license ✗
任何持有普通级或更高执照的业余爱好者
B. Any amateur holding a Technician class or higher license ✓
任何持有技术员级别或更高执照的业余爱好者
C. Any amateur holding a General class or higher license who has applied for and received approval from NASA ✗
任何持有普通级或更高级别执照并已申请并获得美国国家航空航天局批准的业余爱好者
D. Any amateur holding a Technician class or higher license who has applied for and received approval from NASA ✗
任何持有技师级或更高级别执照并已申请并获得美国国家航空航天局批准的业余爱好者

T1B03. Which frequency is in the 6 meter amateur band?
哪个频率在6米业余波段?

A. 49.00 MHz ✗
49.00兆赫
B. 52.525 MHz ✓
52.525兆赫
C. 28.50 MHz ✗
28.50兆赫
D. 222.15 MHz ✗
222.15兆赫

T1B04. Which amateur band includes 146.52 MHz?
哪个业余频段包括146.52 MHz?

A. 6 meters ✗
6米
B. 20 meters ✗
20米
C. 70 centimeters ✗
70厘米
D. 2 meters ✓
2米

T1B05. How may amateurs use the 219 to 220 MHz segment of 1.25 meter band?
业余爱好者如何使用1.25米波段的219到220兆赫的频段?

A. Spread spectrum only ✗
仅扩频
B. Fast-scan television only ✗
仅限快速扫描电视
C. Emergency traffic only ✗
仅限紧急交通
D. Fixed digital message forwarding systems only ✓
仅限固定数字消息转发系统

T1B06. On which HF bands does a Technician class operator have phone privileges?
技师级操作员在哪些高频频段上具有电话权限?

A. None ✗
没有一个
B. 10 meter band only ✓
仅限10米波段
C. 80 meter, 40 meter, 15 meter, and 10 meter bands ✗
80米、40米、15米和10米波段
D. 30 meter band only ✗
仅30米波段

T1B07. Which of the following VHF/UHF band segments are limited to CW only?
以下甚高频/超高频频带段中的哪一个仅限于CW?

A. 50.0 MHz to 50.1 MHz and 144.0 MHz to 144.1 MHz ✓
50.0 MHz至50.1 MHz和144.0 MHz至144.1 MHz
B. 219 MHz to 220 MHz and 420.0 MHz to 420.1 MHz ✗
219 MHz至220 MHz和420.0 MHz至420.1 MHz
C. 902.0 MHz to 902.1 MHz ✗
902.0 MHz至902.1 MHz
D. All these choices are correct ✗
所有这些选择都是正确的

T1B08. How are US amateurs restricted in segments of bands where the Amateur Radio Service is secondary?
美国业余爱好者如何被限制在业余无线电服务是次要的波段?

A. U.S. amateurs may find non-amateur stations in those segments, and must avoid interfering with them ✓
美国业余爱好者可能会在这些路段找到非业余电台，必须避免干扰它们
B. U.S. amateurs must give foreign amateur stations priority in those segments ✗
美国业余爱好者必须优先考虑外国业余电台
C. International communications are not permitted in those segments ✗
这些领域不允许进行国际交流
D. Digital transmissions are not permitted in those segments ✗
这些区段不允许进行数字传输

T1B09. Why should you not set your transmit frequency to be exactly at the edge of an amateur band or sub-band?
为什么你不应该把你的发射频率设置在业余波段或子波段的边缘?

A. To allow for calibration error in the transmitter frequency display ✗
允许变送器频率显示出现校准错误
B. So that modulation sidebands do not extend beyond the band edge ✗
这样调制边带就不会延伸到频带边缘之外
C. To allow for transmitter frequency drift ✗
允许变送器频率漂移
D. All these choices are correct ✓
所有这些选择都是正确的

T1B10. Where may SSB phone be used in amateur bands above 50 MHz?
SSB手机在50 MHz以上的业余频段可以在哪里使用?

A. Only in sub-bands allocated to General class or higher licensees ✗
仅在分配给普通级或更高级别许可证持有者的子波段中
B. Only on repeaters ✗
仅在中继器上
C. In at least some segment of all these bands ✓
至少在所有这些波段的某个片段中
D. On any band if the power is limited to 25 watts ✗
在任何频段上，如果功率限制在25瓦

T1B11. What is the maximum peak envelope power output for Technician class operators in their HF band segments?
技术人员级操作员在其高频频段段的最大峰值包络功率输出是多少?

A. 200 watts ✓
200瓦
B. 100 watts ✗
100瓦
C. 50 watts ✗
50瓦
D. 10 watts ✗
10瓦

T1B12. Except for some specific restrictions, what is the maximum peak envelope power output for Technician class operators using frequencies above 30 MHz?
除某些特定限制外，使用频率高于30 MHz的技术人员级操作员的最大峰值包络功率输出是多少?

A. 50 watts ✗
50瓦
B. 100 watts ✗
100瓦
C. 500 watts ✗
500瓦
D. 1500 watts ✓
1500瓦

T1C Licensing: classes, sequential and vanity call sign systems, places where the Amateur Radio Service is regulated by the FCC, name and address on FCC license database, term, renewal, grace period, maintaining mailing address; International communications
许可：类别、顺序和虚荣的呼号系统、业余无线电服务受FCC监管的地方、FCC许可证数据库上的名称和地址、期限、续期、宽限期、维护邮寄地址；国际通讯

T1C01. For which license classes are new licenses currently available from the FCC?
FCC目前提供哪些许可证类别的新许可证?

A. Novice, Technician, General, Amateur Extra ✗
新手，技术员，普通，业余特级
B. Technician, Technician Plus, General, Amateur Extra ✗
技术员、高级技术员、普通技术员、业余特级技术员
C. Novice, Technician Plus, General, Advanced ✗
新手、技术员以上、普通、高级
D. Technician, General, Amateur Extra ✓
技术员，普通，业余特级

T1C02. Who may select a desired call sign under the vanity call sign rules?
根据虚荣呼号规则，谁可以选择想要的呼号?

A. Only a licensed amateur with a General or Amateur Extra Class license ✗
只有持有普通或业余特级执照的持照业余选手
B. Only a licensed amateur with an Amateur Extra Class license ✗
只有持有业余特级驾照的持照业余选手
C. Only a licensed amateur who has been licensed continuously for more than 10 years ✗
只有连续获得执照超过10年的持证业余选手
D. Any licensed amateur ✓
任何有执照的业余爱好者

T1C03. What types of international communications are an FCC-licensed amateur radio station permitted to make?
FCC许可的业余电台可以进行哪些类型的国际通信?

A. Communications incidental to the purposes of the Amateur Radio Service and remarks of a personal character ✓
业余无线电服务目的附带的通信和个人性质的评论
B. Communications incidental to conducting business or remarks of a personal nature ✗
开展业务附带的通信或个人性质的言论
C. Only communications incidental to contest exchanges; all other communications are prohibited ✗
仅限于对交换提出异议的附带通信；禁止所有其他通信
D. Any communications that would be permitted by an international broadcast station ✗
国际广播电台允许的任何通信

T1C04. What may happen if the FCC is unable to reach you by email?
如果联邦通信委员会无法通过电子邮件联系到您，会发生什么?

A. Fine and suspension of operator license ✗
罚款和吊销操作员执照
B. Revocation of the station license or suspension of the operator license ✓
吊销营业执照或吊销营业执照
C. Revocation of access to the license record in the FCC system ✗
撤销对FCC系统中许可证记录的访问
D. Nothing; there is no such requirement ✗
没有什么没有这样的要求

T1C05. Which of the following is a valid Technician class call sign format?
以下哪项是有效的技师级呼号格式?

A. KF1XXX ✓
kf1xx
B. KA1X ✗
C. W1XX ✗
D. All these choices are correct ✗
所有这些选择都是正确的

T1C06. From which of the following locations may an FCC-licensed amateur station transmit?
FCC许可的业余电台可以从以下哪个位置进行发射?

A. From within any country that belongs to the International Telecommunication Union ✗
来自任何属于国际电信联盟的国家
B. From within any country that is a member of the United Nations ✗
来自任何联合国会员国内部
C. From anywhere within International Telecommunication Union (ITU) Regions 2 and 3 ✗
来自国际电信联盟（ITU）区域2和区域3内的任何地方
D. From any vessel or craft located in international waters and documented or registered in the United States ✓
来自位于国际水域并在美国登记或备案的任何船只

T1C07. Which of the following can result in revocation of the station license or suspension of the operator license?
下列哪一项可能导致车站执照被吊销或运营商执照被吊销?

A. Failure to inform the FCC of any changes in the amateur station following performance of an RF safety environmental evaluation ✗
在进行射频安全环境评估后，未将业余电台的任何变化通知FCC
B. Failure to provide and maintain a correct email address with the FCC ✓
未能向FCC提供并维护正确的电子邮件地址
C. Failure to obtain FCC type acceptance prior to using a home-built transmitter ✗
在使用自制发射机之前未能获得FCC类型的验收
D. Failure to have a copy of your license available at your station ✗
未能提供电台执照副本

T1C08. What is the normal term for an FCC-issued amateur radio license?
FCC颁发的业余无线电执照的正常期限是什么?

A. Five years ✗
五年
B. Life ✗
生活
C. Ten years ✓
十年
D. Eight years ✗
八年

T1C09. What is the grace period for renewal if an amateur license expires?
如果业余执照到期，续期的宽限期是多少?

A. Two years ✓
两年
B. Three years ✗
三年
C. Five years ✗
五年
D. Ten years ✗
十年

T1C10. How soon after passing the examination for your first amateur radio license may you transmit on the amateur radio bands?
通过第一个业余无线电执照考试后多久，你可以在业余无线电波段上进行发射?

A. Immediately on receiving your Certificate of Successful Completion of Examination (CSCE) ✗
收到您的考试合格证书后（CSCE）
B. As soon as your operator/station license grant appears on the ARRL website ✗
ARRL网站上显示您的运营商/加油站许可证后
C. As soon as your operator/station license grant appears in the FCC's license database ✓
一旦您的运营商/电台许可证授予出现在FCC的许可证数据库中
D. As soon as you receive your license in the mail from the FCC ✗
一旦您收到FCC的邮件中的许可证

T1C11. If your license has expired and is still within the allowable grace period, may you continue to transmit on the amateur radio bands?
如果您的许可证已经过期，并且仍在允许的宽限期内，您可以继续在业余无线电波段上传输吗?

A. Yes, for up to two years ✗
是的，最多两年
B. Yes, as soon as you apply for renewal ✗
是的，只要你申请续期
C. Yes, for up to one year ✗
是的，最长一年
D. No, you must wait until the license has been renewed ✓
否，您必须等到续订许可证

T1D Authorized and prohibited transmissions: communications with other countries, music, exchange of information with other services, indecent language, compensation for operating, retransmission of other amateur signals, encryption, sale of equipment, unidentified transmissions, one-way transmission
授权和禁止的传输：与其他国家的通信、音乐、与其他服务交换信息、不雅语言、操作补偿、转发其他业余信号、加密、出售设备、身份不明的传输、单向传输

T1D01. With which countries are FCC-licensed amateur radio stations prohibited from exchanging communications?
FCC许可的业余电台被禁止与哪些国家交换通信?

A. Any country whose administration has notified the International Telecommunication Union (ITU) that it objects to such communications ✓
任何政府已通知国际电信联盟（ITU）反对此类通信的国家
B. Any country whose administration has notified the American Radio Relay League (ARRL) that it objects to such communications ✗
任何政府已通知美国无线电中继联盟（ARRL）反对此类通信的国家
C. Any country banned from such communications by the International Amateur Radio Union (IARU) ✗
任何被国际业余无线电联盟（IARU）禁止进行此类通信的国家
D. Any country banned from making such communications by the American Radio Relay League (ARRL) ✗
任何被美国无线电中继联盟（ARRL）禁止进行此类通信的国家

T1D02. Under which of the following circumstances are one-way transmissions by an amateur station prohibited?
在下列哪种情况下，业余电台禁止单向传输?

A. In all circumstances ✗
在任何情况下
B. Broadcasting ✓
广播
C. International Morse Code Practice ✗
国际莫尔斯电码实务
D. Telecommand or transmissions of telemetry ✗
遥测遥控或传输

T1D03. When is it permissible to transmit messages encoded to obscure their meaning?
什么时候才允许传输被编码以掩盖其含义的信息?

A. Only during contests ✗
仅在比赛期间
B. Only when transmitting certain approved digital codes ✗
仅当传输某些经批准的数字代码时
C. Only when transmitting control commands to space stations or radio control craft ✓
仅当向空间站或无线电控制飞行器发送控制命令时
D. Never ✗
从不

T1D04. Under what conditions is an amateur station authorized to transmit music using a phone emission?
业余电台在什么条件下被授权使用手机发射来传输音乐?

A. When incidental to an authorized retransmission of manned spacecraft communications ✓
当载人航天器通信的授权重发附带发生时
B. When the music produces no spurious emissions ✗
当音乐不产生杂散发射时
C. When transmissions are limited to less than three minutes per hour ✗
当传输限制在每小时三分钟以内时
D. When the music is transmitted above 1280 MHz ✗
当音乐在1280 MHz以上传输时

T1D05. When may amateur radio operators use their stations to notify other amateurs of the availability of equipment for sale or trade?
业余无线电运营商何时可以使用他们的电台通知其他业余爱好者出售或交易设备的可用性?

A. Never ✗
从不
B. When the equipment is not the personal property of either the station licensee, or the control operator, or their close relatives ✗
当设备不是电站持牌人、控制操作员或其近亲的个人财产时
C. When no profit is made on the sale ✗
当销售没有盈利时
D. When selling amateur radio equipment and not on a regular basis ✓
当出售业余无线电设备而不是定期

T1D06. What, if any, are the restrictions concerning transmission of language that may be considered indecent or obscene?
对传播可能被视为不雅或淫秽的语言有哪些限制（如果有的话）?

A. The FCC maintains a list of words that are not permitted to be used on amateur frequencies ✗
FCC保留了一份不允许在业余频率上使用的单词列表
B. Any such language is prohibited ✓
禁止使用任何此类语言
C. The ITU maintains a list of words that are not permitted to be used on amateur frequencies ✗
国际电联保留了一份不允许在业余频率上使用的单词列表
D. There is no such prohibition ✗
没有这样的禁令

T1D07. What types of amateur stations can automatically retransmit the signals of other amateur stations?
什么类型的业余电台可以自动重传其他业余电台的信号?

A. Auxiliary, beacon, or Earth stations ✗
辅助、信标或地球站
B. Earth, repeater, or space stations ✗
地球、中继器或空间站
C. Beacon, repeater, or space stations ✗
信标、中继器或空间站
D. Repeater, auxiliary, or space stations ✓
中继器、辅助站或空间站

T1D08. In which of the following circumstances may the control operator of an amateur station receive compensation for operating that station?
在以下哪种情况下，业余电台的控制操作员可以因操作该电台而获得补偿?

A. When the communication is related to the sale of amateur equipment by the control operator's employer ✗
当通信与控制操作员的雇主出售业余设备有关时
B. When the communication is incidental to classroom instruction at an educational institution ✓
当交流是教育机构课堂教学的附带内容时
C. When the communication is made to obtain emergency information for a local broadcast station ✗
当进行通信以获得本地广播电台的紧急信息时
D. All these choices are correct ✗
所有这些选择都是正确的

T1D09. When may amateur stations transmit information in support of broadcasting, program production, or news gathering, assuming no other means is available?
假设没有其他手段，业余电台什么时候可以传输信息来支持广播、节目制作或新闻收集?

A. When such communications are directly related to the immediate safety of human life or protection of property ✓
当此类通信直接涉及人的生命安全或财产保护时
B. When broadcasting communications to or from the space shuttle ✗
向航天飞机广播通信时
C. Where noncommercial programming is gathered and supplied exclusively to the National Public Radio network ✗
收集非商业节目并专门提供给国家公共广播网络
D. Never ✗
从不

T1D10. How does the FCC define broadcasting for the Amateur Radio Service?
FCC如何定义业余无线电服务的广播?

A. Two-way transmissions by amateur stations ✗
业余电台双向传输
B. Any transmission made by the licensed station ✗
由持牌电台进行的任何传输
C. Transmission of messages directed only to amateur operators ✗
仅针对业余运营商的信息传输
D. Transmissions intended for reception by the general public ✓
供公众接收的传输

T1D11. When may an amateur station transmit without identifying on the air?
业余电台什么时候可以在没有识别的情况下进行广播?

A. When the transmissions are of a brief nature to make station adjustments ✗
当传输具有进行电台调整的短暂性质时
B. When the transmissions are unmodulated ✗
当传输未调制时
C. When the transmitted power level is below 1 watt ✗
当传输功率电平低于1瓦时
D. When transmitting signals to control model craft ✓
向控制模型飞行器发送信号时

T1E Control operator: eligibility, designating, privileges, duties, location, required; Control point; Control types: automatic, remote
控制操作员：资格、指定、特权、职责、位置，必需；控制点；控制类型：自动、远程

T1E01. When may an amateur station transmit without a control operator?
业余电台什么时候可以在没有控制操作员的情况下进行发射?

A. When using automatic control, such as in the case of a repeater ✗
使用自动控制时，例如在中继器的情况下
B. When the station licensee is away and another licensed amateur is using the station ✗
当电台持牌人不在，而另一位持牌业余爱好者正在使用电台时
C. When the transmitting station is an auxiliary station ✗
当发射站是辅助站时
D. Never ✓
从不

T1E02. Who may be the control operator of a station communicating through an amateur satellite or space station?
谁可能是通过业余卫星或空间站进行通信的空间站的控制操作员?

A. Only an Amateur Extra Class operator ✗
只有业余特级操作员
B. A General class or higher licensee with a satellite operator certification ✗
具有卫星运营商证书的普通级或更高级别许可证持有人
C. Only an Amateur Extra Class operator who is also an AMSAT member ✗
只有同时也是AMSAT成员的业余特级操作员
D. Any amateur allowed to transmit on the satellite uplink frequency ✓
任何被允许在卫星上行链路频率上传输的业余爱好者

T1E03. Who must designate the station control operator?
谁必须指定车站控制操作员?

A. The station licensee ✓
电台执照
B. The FCC ✗
FCC
C. The frequency coordinator ✗
频率协调器
D. Any licensed operator ✗
任何持牌运营商

T1E04. What determines the transmitting frequency privileges of an amateur station?
是什么决定了业余电台的发射频率特权?

A. The frequency authorized by the frequency coordinator ✗
频率协调器授权的频率
B. The frequencies printed on the license grant ✗
打印在许可证上的频率
C. The highest class of operator license held by anyone on the premises ✗
场所内任何人持有的最高级别的操作员执照
D. The class of operator license held by the control operator ✓
控制操作员持有的操作员执照类别

T1E05. What is an amateur station’s control point?
业余电台的控制点是什么?

A. The location of the station’s transmitting antenna ✗
电台发射天线的位置
B. The location of the station’s transmitting apparatus ✗
电台发射设备的位置
C. The location at which the control operator function is performed ✓
执行控制操作员功能的位置
D. The mailing address of the station licensee ✗
台站持牌人的邮寄地址

T1E06. When, under normal circumstances, may a Technician class licensee be the control operator of a station operating in an Amateur Extra Class band segment?
在正常情况下，技术级许可证持有者何时可以是在业余特级波段段中运行的电台的控制操作员?

A. At no time ✓
任何时候都不可以
B. When designated as the control operator by an Amateur Extra Class licensee ✗
当被业余特级持牌人指定为控制操作员时
C. As part of a multi-operator contest team ✗
作为多运营商竞赛团队的一员
D. When using a club station whose trustee holds an Amateur Extra Class license ✗
当使用受托人持有业余特级执照的俱乐部电台时

T1E07. When the control operator is not the station licensee, who is responsible for the proper operation of the station?
当控制操作员不是车站持牌人时，谁负责车站的正确操作?

A. All licensed amateurs who are present at the operation ✗
所有有执照的业余爱好者都参加了手术
B. Only the station licensee ✗
仅电台执照
C. Only the control operator ✗
只有控制操作员
D. The control operator and the station licensee ✓
控制操作员和台站持牌人

T1E08. Which of the following is an example of automatic control?
以下哪一项是自动控制的示例?

A. Repeater operation ✓
中继器操作
B. Controlling a station over the internet ✗
通过互联网控制电台
C. Using a computer or other device to send CW automatically ✗
使用计算机或其他设备自动发送CW
D. Using a computer or other device to identify automatically ✗
使用计算机或其他设备自动识别

T1E09. Which of the following are required for remote control operation?
远程控制操作需要下列哪项?

A. The control operator must be at the control point ✗
控制操作员必须在控制点
B. A control operator is required at all times ✗
任何时候都需要一名控制操作员
C. The control operator must indirectly manipulate the controls ✗
控制操作员必须间接操纵控制装置
D. All these choices are correct ✓
所有这些选择都是正确的

T1E10. Which of the following is an example of remote control as defined in Part 97?
以下哪项是第97部分中定义的远程控制示例?

A. Repeater operation ✗
中继器操作
B. Operating the station over the internet ✓
通过互联网操作电台
C. Controlling a model aircraft, boat, or car by amateur radio ✗
通过业余无线电控制模型飞机、船只或汽车
D. All these choices are correct ✗
所有这些选择都是正确的

T1E11. Who does the FCC presume to be the control operator of an amateur station, unless documentation to the contrary is in the station records?
FCC认为谁是业余电台的控制操作员，除非电台记录中有相反的文件?

A. The station custodian ✗
台站管理员
B. The third party participant ✗
第三方参与者
C. The person operating the station equipment ✗
操作台站设备的人员
D. The station licensee ✓
电台执照

T1F Station identification; Repeaters; Third party communications; Club stations; FCC inspection
车站标识；中继器；第三方通信；俱乐部电台；FCC检查

T1F01. When must the station and its records be available for FCC inspection?
FCC必须在什么时候检查电站及其记录?

A. At any time ten days after notification by the FCC of such an inspection ✗
FCC通知此类检查后10天内的任何时间
B. At any time upon request by an FCC representative ✓
应FCC代表的要求随时
C. At any time after written notification by the FCC of such inspection ✗
FCC书面通知此类检查后的任何时间
D. Only when presented with a valid warrant by an FCC official or government agent ✗
只有当FCC官员或政府代理人出示有效的搜查令时

T1F02. How often must you identify with your FCC-assigned call sign when using tactical call signs such as “Race Headquarters”?
使用战术呼号（如“比赛总部”）时，您必须多久识别一次FCC指定的呼号?

A. Never, the tactical call is sufficient ✗
从来没有，战术呼叫就足够了
B. Once during every hour ✗
每小时一次
C. At the end of each communication and every ten minutes during a communication ✓
每次交流结束时，交流期间每10分钟
D. At the end of every transmission ✗
每次传输结束时

T1F03. When are you required to transmit your assigned call sign?
您需要在什么时候传送指定的呼号?

A. At the beginning of each contact, and every 10 minutes thereafter ✗
每次接触开始时，此后每10分钟
B. At least once during each transmission ✗
每次传输期间至少一次
C. At least every 15 minutes during and at the end of a communication ✗
在通信期间和通信结束时，至少每15分钟一次
D. At least every 10 minutes during and at the end of a communication ✓
在通信期间和通信结束时，至少每10分钟一次

T1F04. What language may you use for identification when operating in a phone sub-band?
在手机子带中操作时，您可以使用什么语言进行识别?

A. Any language recognized by the United Nations ✗
联合国承认的任何语言
B. Any language recognized by the ITU ✗
国际电联认可的任何语言
C. English ✓
英语
D. English, French, or Spanish ✗
英语、法语或西班牙语

T1F05. What method of call sign identification is required for a station transmitting phone signals?
发射电话信号的电台需要用什么方法识别呼号?

A. Send the call sign followed by the indicator RPT ✗
发送呼号，然后是指示RPT
B. Send the call sign using a CW or phone emission ✓
使用CW或电话发射发送呼号
C. Send the call sign followed by the indicator R ✗
发送呼号后接指示灯R
D. Send the call sign using only a phone emission ✗
仅使用电话发射发送呼号

T1F06. Which of the following self-assigned indicators are acceptable when using a phone transmission?
当使用电话传输时，以下哪种自行分配的指示灯是可以接受的?

A. KL7CC stroke W3 ✗
KL7CC冲程W3
B. KL7CC slant W3 ✗
KL7CC斜面W3
C. KL7CC slash W3 ✗
KL7CC斜线W3
D. All these choices are correct ✓
所有这些选择都是正确的

T1F07. Which of the following restrictions apply when a non-licensed person is allowed to speak to a foreign station using a station under the control of a licensed amateur operator?
当非持牌人被允许使用持牌业余运营商控制的电台与外国电台通话时，以下哪些限制适用?

A. The person must be a U.S. citizen ✗
此人必须是美国公民
B. The foreign station must be in a country with which the U.S. has a third party agreement ✓
外国电台必须位于与美国有第三方协议的国家
C. The licensed control operator must do the station identification ✗
持有执照的控制操作员必须进行站识别
D. All these choices are correct ✗
所有这些选择都是正确的

T1F08. What is the definition of third party communications?
第三方通信的定义是什么?

A. A message from a control operator to another amateur station control operator on behalf of another person ✓
一个控制操作员代表另一个人向另一个业余站控制操作员发送的信息
B. Amateur radio communications where three stations are in communications with one another ✗
三个电台相互通信的业余无线电通信
C. Operation when the transmitting equipment is licensed to a person other than the control operator ✗
传输设备许可给控制操作员以外的人员时的操作
D. Temporary authorization for an unlicensed person to transmit on the amateur bands for technical experiments ✗
临时授权未经许可的人在业余波段进行技术实验

T1F09. What type of amateur station simultaneously retransmits the signal of another amateur station on a different channel or channels?
什么类型的业余电台在不同的一个或多个频道上同时重传另一个业余电台的信号?

A. Beacon station ✗
信标站
B. Earth station ✗
地球站
C. Repeater station ✓
中继站
D. Message forwarding station ✗
消息转发站

T1F10. Who is accountable if a repeater inadvertently retransmits communications that violate the FCC rules?
如果中继器无意中转发了违反FCC规则的通信，谁负责?

A. The control operator of the originating station ✓
始发站的控制操作员
B. The control operator of the repeater ✗
中继器的控制操作员
C. The owner of the repeater ✗
中继器的所有者
D. Both the originating station and the repeater owner ✗
始发站和中继器所有者

T1F11. Which of the following is a requirement for the issuance of a club station license grant?
以下哪项是颁发俱乐部电台许可证的要求?

A. The trustee must have an Amateur Extra Class operator license grant ✗
受托人必须获得业余特级操作员许可证
B. The club must have at least four members ✓
俱乐部必须至少有四名成员
C. The club must be registered with the American Radio Relay League ✗
俱乐部必须在美国无线电转播联盟注册
D. All these choices are correct ✗
所有这些选择都是正确的

T2 OPERATING PROCEDURES
操作程序

T2A Station operation: choosing an operating frequency, calling another station, test transmissions; Band plans: calling frequencies, repeater offsets
电台操作：选择一个操作频率，呼叫另一个电台，测试传输；频带规划：呼叫频率、中继器偏移

T2A01. What is a common repeater frequency offset in the 2 meter band?
在2米波段中，常见的中继器频率偏移是多少?

A. Plus or minus 5 MHz ✗
正负5 MHz
B. Plus or minus 600 kHz ✓
正负600 kHz
C. Plus or minus 500 kHz ✗
正负500 kHz
D. Plus or minus 1 MHz ✗
正负1 MHz

T2A02. What is the national calling frequency for FM simplex operations in the 2 meter band?
2米波段调频单工操作的国家呼叫频率是多少?

A. 146.520 MHz ✓
146.520兆赫
B. 145.000 MHz ✗
145.000兆赫
C. 432.100 MHz ✗
432.100兆赫
D. 446.000 MHz ✗
446.000兆赫

T2A03. What is a common repeater frequency offset in the 70 cm band?
70厘米波段中常见的中继器频率偏移是多少?

A. Plus or minus 5 MHz ✓
正负5 MHz
B. Plus or minus 600 kHz ✗
正负600 kHz
C. Plus or minus 500 kHz ✗
正负500 kHz
D. Plus or minus 1 MHz ✗
正负1 MHz

T2A04. What is an appropriate way to call another station on a repeater if you know the other station's call sign?
如果你知道另一个电台的呼号，那么在中继器上呼叫另一个车站的合适方式是什么?

A. Say "break, break," then say the station's call sign ✗
说“插入，插入，然后说台站的呼号
B. Say the station's call sign, then identify with your call sign ✓
说出电台的呼号，然后用呼号识别
C. Say "CQ" three times, then the other station's call sign ✗
说三次“CQ”，然后是另一个电台的呼号
D. Wait for the station to call CQ, then answer ✗
等待电台呼叫CQ，然后接听

T2A05. How should you respond to a station calling CQ?
您应该如何回应呼叫CQ的电台?

A. Transmit "CQ" followed by the other station’s call sign ✗
发送“CQ”，然后发送其他电台的呼号
B. Transmit your call sign followed by the other station’s call sign ✗
发送您的呼号，然后发送其他电台的呼号
C. Transmit the other station’s call sign followed by your call sign ✓
发送另一个电台的呼号，然后发送您的呼号
D. Transmit a signal report followed by your call sign ✗
发送信号报告，然后发送呼号

T2A06. Which of the following is required when making on-the-air test transmissions?
在进行空气测试变速器时，需要以下哪项?

A. Identify the transmitting station ✓
识别发射站
B. Conduct tests only between 10 p.m. and 6 a.m. local time ✗
仅在当地时间晚上10点至早上6点之间进行测试
C. Notify the FCC of the transmissions ✗
将传输通知FCC
D. All these choices are correct ✗
所有这些选择都是正确的

T2A07. What is meant by "repeater offset”?
什么是“中继器偏移”?

A. The difference between a repeater’s transmit and receive frequencies ✓
中继器的发射频率和接收频率之间的差异
B. The repeater has a time delay to prevent interference ✗
中继器有延时以防止干扰
C. The repeater station identification is done on a separate frequency ✗
中继站识别在单独的频率上完成
D. The number of simultaneous transmit frequencies used by a repeater ✗
中继器同时使用的发射频率的数量

T2A08. What is the meaning of the procedural signal “CQ”?
程序信号“CQ”的含义是什么?

A. Call on the quarter hour ✗
一刻钟打电话
B. Test transmission, no reply expected ✗
测试传输，预期无回复
C. Only the called station should transmit ✗
只有被叫站应该发送
D. Calling any station ✓
呼叫任何电台

T2A09. Which of the following indicates that a station is listening on a repeater and looking for a contact?
以下哪一项表示电台正在收听中继器并寻找联系人?

A. “CQ CQ” followed by the repeater’s call sign ✗
“CQ CQ”后接中继器的呼号
B. The station’s call sign followed by the word “monitoring” ✓
台站的呼号后面跟着“监控”一词
C. The repeater call sign followed by the station’s call sign ✗
中继台呼号后接台站呼号
D. “QSY” followed by your call sign ✗
“QSY”后接呼号

T2A10. What is a band plan, beyond the privileges established by the FCC?
除了联邦通信委员会规定的特权之外，什么是乐队计划?

A. A voluntary guideline for using different modes or activities within an amateur band ✓
在业余乐队中使用不同模式或活动的自愿指南
B. A list of operating schedules ✗
运行时间表列表
C. A list of available net frequencies ✗
可用网络频率列表
D. A plan devised by a club to indicate frequency band usage ✗
俱乐部设计的用于指示频带使用情况的计划

T2A11. What term describes an amateur station that is transmitting and receiving on the same frequency?
哪个术语描述在同一频率上发送和接收的业余电台?

A. Full duplex ✗
全双工
B. Diplex ✗
C. Simplex ✓
D. Multiplex ✗
多路复用

T2A12. What should you do before calling CQ?
打电话给CQ之前你应该怎么做?

A. Listen first to be sure that no one else is using the frequency ✗
先听，确保没有其他人在使用该频率
B. Ask if the frequency is in use ✗
询问频率是否在使用中
C. Make sure you are authorized to use that frequency ✗
确保您有权使用该频率
D. All these choices are correct ✓
所有这些选择都是正确的

T2B VHF/UHF operating practices: FM repeater, simplex, reverse splits; Access tones: CTCSS, DTMF; DMR operation; Resolving operational problems; Q signals
甚高频/超高频操作实践：调频中继器、单工、反向分路；接入音：CTCSS、DTMF；DMR操作；解决运营问题；Q信号

T2B01. How is a VHF/UHF transceiver's "reverse" function used?
甚高频/超高频收发器的"反向"功能是如何使用的?

A. To reduce power output ✗
降低功率输出
B. To increase power output ✗
增加功率输出
C. To listen on a repeater's input frequency ✓
收听中继器的输入频率
D. To listen on a repeater's output frequency ✗
收听中继器的输出频率

T2B02. What term describes the use of a sub-audible tone transmitted along with normal voice audio to open the squelch of a receiver?
什么术语描述了使用与正常语音音频一起传输的亚音频来打开接收器的静噪?

A. Carrier squelch ✗
载波静噪
B. Tone burst ✗
音调突发
C. DTMF ✗
D. CTCSS ✓

T2B03. Which of the following describes a linked repeater network?
以下哪项描述了链接中继器网络?

A. A network of repeaters in which signals received by one repeater are transmitted by all the repeaters in the network ✓
一种中继器网络，其中一个中继器接收的信号由网络中的所有中继器发送
B. A single repeater with more than one receiver ✗
具有多个接收器的单个中继器
C. Multiple repeaters with the same control operator ✗
具有相同控制操作员的多个中继器
D. A system of repeaters linked by APRS ✗
由APRS连接的中继器系统

T2B04. Which of the following could be the reason you are unable to access a repeater whose output you can hear?
以下哪一项可能是您无法访问其输出可以听到的中继器的原因?

A. Improper transceiver offset ✗
收发器偏移不正确
B. You are using the wrong CTCSS tone ✗
您使用了错误的CTCSS音调
C. You are using the wrong DCS code ✗
您使用了错误的DCS代码
D. All these choices are correct ✓
所有这些选择都是正确的

T2B05. What would cause your FM transmission audio to be distorted on voice peaks?
是什么原因导致调频传输音频在语音峰值时失真?

A. Your repeater offset is inverted ✗
您的中继器偏移量已反转
B. You need to talk louder ✗
你需要大声说话
C. You are talking too loudly ✓
你说话太大声了
D. Your transmit power is too high ✗
你的发射功率太高

T2B06. What type of signaling uses pairs of audio tones?
什么类型的信号使用成对的音频音调?

A. DTMF ✓
B. CTCSS ✗
C. GPRS ✗
D. D-STAR ✗
D星

T2B07. How can you join a digital repeater's "talkgroup"?
如何加入数字中继器的"通话组"?

A. Register your radio with the local FCC office ✗
向当地FCC办公室注册您的收音机
B. Join the repeater owner's club ✗
加入中继器所有者俱乐部
C. Program your radio with the group's ID or code ✓
使用小组的ID或代码对收音机进行编程
D. Sign your call after the courtesy tone ✗
用礼貌的语气在电话上签字

T2B08. Which of the following applies when two stations transmitting on the same frequency interfere with each other?
当两个在同一频率上传输的电台相互干扰时，以下哪一项适用?

A. The stations should negotiate continued use of the frequency ✓
电台应协商继续使用频率
B. Both stations should choose another frequency to avoid conflict ✗
两个电台应选择另一个频率以避免冲突
C. Interference is inevitable, so no action is required ✗
干扰是不可避免的，因此无需采取任何行动
D. Use subaudible tones so both stations can share the frequency ✗
使用亚音频音调，使两个电台可以共享频率

T2B09. Why are simplex channels designated in the VHF/UHF band plans?
为什么甚高频/超高频频带计划中指定单工信道?

A. So stations within range of each other can communicate without tying up a repeater ✓
因此，彼此范围内的站点可以在不占用中继器的情况下进行通信
B. For contest operation ✗
用于竞赛操作
C. For working DX only ✗
仅用于工作DX
D. So stations with simple transmitters can access the repeater without automated offset ✗
因此，具有简单发射机的电台可以在没有自动偏移的情况下接入中继器

T2B10. Which Q signal indicates that you are receiving interference from other stations?
哪个Q信号表示您正在接收来自其他电台的干扰?

A. QRM ✓
B. QRN ✗
C. QTH ✗
D. QSB ✗

T2B11. Which Q signal indicates that you are changing frequency?
哪个Q信号表示您正在改变频率?

A. QRU ✗
B. QSY ✓
C. QSL ✗
D. QRZ ✗

T2B12. What is the purpose of the color code used on DMR repeater systems?
DMR中继器系统上使用颜色代码的目的是什么?

A. Must match the repeater color code for access ✓
必须与中继器颜色代码匹配才能访问
B. Defines the frequency pair to use ✗
定义要使用的频率对
C. Identifies the codec used ✗
标识使用的编解码器
D. Defines the minimum signal level required for access ✗
定义访问所需的最低信号电平

T2B13. What is the purpose of a squelch function?
静噪功能的用途是什么?

A. Reduce a CW transmitter's key clicks ✗
减少CW发射机的按键点击
B. Mute the receiver audio when a signal is not present ✓
当没有信号时，将接收器音频静音
C. Eliminate parasitic oscillations in an RF amplifier ✗
消除射频放大器中的寄生振荡
D. Reduce interference from impulse noise ✗
减少脉冲噪声的干扰

T2C Public service: emergency operations, applicability of FCC rules, RACES and ARES, net and traffic procedures, operating restrictions during emergencies, use of phonetics in message handling
公共服务：紧急操作、FCC规则的适用性、RACES和ARES、网络和交通程序、紧急情况下的操作限制、语音在消息处理中的使用

T2C01. When do FCC rules NOT apply to the operation of an amateur station?
FCC规则何时不适用于业余电台的运营?

A. When operating a RACES station ✗
操作RACES站时
B. When operating under special FEMA rules ✗
在FEMA特殊规则下操作时
C. When operating under special ARES rules ✗
在特殊ARES规则下操作时
D. FCC rules always apply ✓
FCC规则始终适用

T2C02. Which of the following are typical duties of a Net Control Station?
以下哪项是网络控制站的典型职责?

A. Choose the regular net meeting time and frequency ✗
选择定期网络会议的时间和频率
B. Ensure that all stations checking into the net are properly licensed for operation on the net frequency ✗
确保所有接入网络的电台都获得了在网络频率上运行的适当许可
C. Call the net to order and direct communications between stations checking in ✓
呼叫网络订购并指导报到站之间的通信
D. All these choices are correct ✗
所有这些选择都是正确的

T2C03. What technique is used to ensure that voice messages containing unusual words are received correctly?
使用什么技术来确保包含异常单词的语音消息被正确接收?

A. Send the words by voice and Morse code ✗
通过语音和莫尔斯电码发送单词
B. Speak very loudly into the microphone ✗
对着麦克风大声说话
C. Spell the words using a standard phonetic alphabet ✓
使用标准拼音拼写单词
D. All these choices are correct ✗
所有这些选择都是正确的

T2C04. What is RACES?
什么是种族?

A. An emergency organization combining amateur radio and citizens band operators and frequencies ✗
一个由业余无线电和市民波段操作员和频率组成的应急组织
B. An international radio experimentation society ✗
国际无线电实验学会
C. A radio contest held in a short period, sometimes called a “sprint” ✗
短时间内举行的广播比赛，有时被称为“短跑”
D. An FCC part 97 amateur radio service for civil defense communications during national emergencies ✓
美国联邦通信委员会第97部分国家紧急情况下用于民防通信的业余无线电服务

T2C05. What does the term “traffic” refer to in net operation?
“流量”一词在网络运营中指的是什么?

A. Messages exchanged by net stations ✓
各网络站交换的信息
B. The number of stations checking in and out of a net ✗
入网和出网的站点数量
C. Operation by mobile or portable stations ✗
移动站或便携式站的操作
D. Requests to activate the net by a served agency ✗
被服务机构激活网络的请求

T2C06. What is the Amateur Radio Emergency Service (ARES)?
什么是业余无线电应急服务（ARES）？

A. A group of licensed amateurs who have voluntarily registered their qualifications and equipment for communications duty in the public service ✓
一群有执照的业余爱好者，他们自愿注册了在公共服务中履行通信职责的资格和设备
B. A group of licensed amateurs who are members of the military and who voluntarily agreed to provide message handling services in the case of an emergency ✗
一群持有执照的业余军人，他们自愿同意在紧急情况下提供信息处理服务
C. A training program that provides licensing courses for those interested in obtaining an amateur license to use during emergencies ✗
一种培训计划，为那些有兴趣获得业余许可证的人提供许可证课程，以便在紧急情况下使用
D. A training program that certifies amateur operators for membership in the Radio Amateur Civil Emergency Service ✗
一个培训项目，认证业余操作员加入业余无线电民用应急服务

T2C07. Which of the following is standard practice when you participate in a net?
以下哪项是您参加网络活动时的标准做法?

A. When first responding to the net control station, transmit your call sign, name, and address as in the FCC database ✗
当第一次响应网络控制站时，按照FCC数据库中的方式发送您的呼号、姓名和地址
B. Record the time of each of your transmissions ✗
记录每次传输的时间
C. Unless you are reporting an emergency, transmit only when directed by the net control station ✓
除非您正在报告紧急情况，只有在网络控制站的指示下才能发送
D. All these choices are correct ✗
所有这些选择都是正确的

T2C08. Which of the following is a characteristic of good traffic handling?
以下哪项是良好交通处理的特点?

A. Passing messages exactly as received ✓
完全按照收到的内容传递消息
B. Making decisions as to whether messages are worthy of relay or delivery ✗
决定消息是否值得转发或传递
C. Ensuring that any newsworthy messages are relayed to the news media ✗
确保将任何有新闻价值的信息传达给新闻媒体
D. All these choices are correct ✗
所有这些选择都是正确的

T2C09. Are amateur station control operators ever permitted to operate outside the frequency privileges of their license class?
业余站控操作员是否被允许在其许可级别的频率权限之外进行操作?

A. No ✗
不
B. Yes, but only when part of a FEMA emergency plan ✗
是的，但仅当FEMA应急计划的一部分
C. Yes, but only when part of a RACES emergency plan ✗
是的，但仅当RACES应急计划的一部分
D. Yes, but only in situations involving the immediate safety of human life or protection of property ✓
是的，但仅限于涉及人身安全或财产保护的情况

T2C10. What information is contained in the preamble of a formal traffic message?
正式交通信息的序言中包含哪些信息?

A. The email address of the originating station ✗
始发站的电子邮件地址
B. The address of the intended recipient ✗
预定收件人的地址
C. The telephone number of the addressee ✗
收件人的电话号码
D. Information needed to track the message ✓
跟踪邮件所需的信息

T2C11. What is meant by “check” in a radiogram header?
无线电图像标题中的“检查”是什么意思?

A. The number of words or word equivalents in the text portion of the message ✓
消息文本部分中的单词数或等效单词数
B. The call sign of the originating station ✗
始发站的呼号
C. A list of stations that have relayed the message ✗
已中继消息的电台列表
D. A box on the message form that indicates that the message was received and/or relayed ✗
消息表单上的一个框，指示消息已被接收和/或中继

T3 RADIO WAVE PROPAGATION
无线电波传播

T3A Radio wave characteristics: how a radio signal travels, fading, multipath, polarization, wavelength vs absorption; Antenna orientation
无线电波特性：无线电信号的传播方式、衰落、多径、偏振、波长与吸收；天线方向

T3A01. Why do VHF signal strengths sometimes vary greatly when the antenna is moved only a few feet?
为什么当天线只移动几英尺时，VHF信号强度有时会有很大的变化?

A. The signal path encounters different concentrations of water vapor ✗
信号路径遇到不同浓度的水蒸气
B. VHF ionospheric propagation is very sensitive to path length ✗
甚高频电离层传播对路径长度非常敏感
C. Multipath propagation cancels or reinforces signals ✓
多径传播消除或增强信号
D. All these choices are correct ✗
所有这些选择都是正确的

T3A02. What is the effect of vegetation on UHF and microwave signals?
植被对超高频和微波信号的影响是什么?

A. Knife-edge diffraction ✗
刀刃衍射
B. Absorption ✓
吸收
C. Amplification ✗
放大
D. Polarization rotation ✗
极化旋转

T3A03. What antenna polarization is normally used for long-distance CW and SSB contacts on the VHF and UHF bands?
甚高频和超高频波段的长距离CW和SSB触点通常使用什么天线极化?

A. Right-hand circular ✗
右侧圆形
B. Left-hand circular ✗
左侧圆形
C. Horizontal ✓
水平的
D. Vertical ✗
竖的

T3A04. What happens when antennas at opposite ends of a VHF or UHF line of sight radio link are not using the same polarization?
当VHF或UHF视线无线电链路两端的天线不使用相同的极化时，会发生什么?

A. The modulation sidebands might become inverted ✗
调制边带可能会反转
B. Received signal strength is reduced ✓
接收信号强度降低
C. Signals have an echo effect ✗
信号具有回声效应
D. Nothing significant will happen ✗
不会发生任何重大事件

T3A05. When using a directional antenna, how might your station be able to communicate with a distant repeater if buildings or obstructions are blocking the direct line of sight path?
当使用定向天线时，如果建筑物或障碍物阻挡了直接的视线路径，您的电台如何能够与远程中继器通信?

A. Change from vertical to horizontal polarization ✗
从垂直极化变为水平极化
B. Try to find a path that reflects signals to the repeater ✓
尝试找到一条将信号反射到中继器的路径
C. Try the long path ✗
试试长路
D. Increase the antenna SWR ✗
增加天线SWR

T3A06. What is the meaning of the term “picket fencing”?
“尖桩围栏”一词的含义是什么?

A. Alternating transmissions during a net operation ✗
网络操作期间的交替传输
B. Rapid flutter on mobile signals due to multipath propagation ✓
多径传播引起的移动信号快速颤动
C. A type of ground system used with vertical antennas ✗
一种与垂直天线一起使用的地面系统
D. Local vs long-distance communications ✗
本地通信与远程通信

T3A07. What weather condition might decrease range at microwave frequencies?
什么天气条件可能会降低微波频率下的射程?

A. High winds ✗
大风
B. Low barometric pressure ✗
低气压
C. Precipitation ✓
降水
D. Colder temperatures ✗
冷却器温度

T3A08. What is a likely cause of irregular fading of signals propagated by the ionosphere?
电离层传播的信号不规则衰落的可能原因是什么?

A. Frequency shift due to Faraday rotation ✗
法拉第旋转引起的频率偏移
B. Interference from thunderstorms ✗
雷暴干扰
C. Intermodulation distortion ✗
互调失真
D. Random combining of signals arriving via different paths ✓
通过不同路径到达的信号的随机组合

T3A09. Which of the following results from the fact that signals propagated by the ionosphere are elliptically polarized?
以下哪一项是由电离层传播的信号是椭圆偏振的事实引起的?

A. Digital modes are unusable ✗
数字模式不可用
B. Either vertically or horizontally polarized antennas may be used for transmission or reception ✓
垂直或水平极化天线可用于发射或接收
C. FM voice is unusable ✗
调频语音不可用
D. Both the transmitting and receiving antennas must be of the same polarization ✗
发射天线和接收天线必须具有相同的极化

T3A10. What effect does multi-path propagation have on data transmissions?
多路径传播对数据传输有什么影响?

A. Transmission rates must be increased by a factor equal to the number of separate paths observed ✗
传输速率必须增加一个等于观察到的独立路径数量的因子
B. Transmission rates must be decreased by a factor equal to the number of separate paths observed ✗
传输速率必须降低一个等于观察到的独立路径数量的因子
C. No significant changes will occur if the signals are transmitted using FM ✗
如果使用FM传输信号，则不会发生显著变化
D. Error rates are likely to increase ✓
错误率可能会增加

T3A11. Which region of the atmosphere can refract or bend HF and VHF radio waves?
大气层的哪个区域可以折射或弯曲HF和VHF无线电波?

A. The stratosphere ✗
平流层
B. The troposphere ✗
对流层
C. The ionosphere ✓
电离层
D. The mesosphere ✗
中间层

T3A12. What is the effect of fog and rain on signals in the 10 meter and 6 meter bands?
雾和雨对10米和6米波段的信号有什么影响?

A. Absorption ✗
吸收
B. There is little effect ✓
效果甚微
C. Deflection ✗
挠度
D. Range increase ✗
范围增加

T3B Electromagnetic wave properties: wavelength vs frequency, nature and velocity of electromagnetic waves, relationship of wavelength and frequency; Electromagnetic spectrum definitions: UHF, VHF, HF
电磁波特性：波长与频率、电磁波的性质和速度、波长与频率的关系；电磁频谱定义：UHF、VHF、HF

T3B01. What is the relationship between the electric and magnetic fields of an electromagnetic wave?
电磁波的电场和磁场之间的关系是什么?

A. They travel at different speeds ✗
它们以不同的速度行驶
B. They are in parallel ✗
它们是平行的
C. They revolve in opposite directions ✗
它们以相反的方向旋转
D. They are at right angles ✓
它们成直角

T3B02. What property of a radio wave defines its polarization?
无线电波的什么性质决定了它的极化?

A. The orientation of the electric field ✓
电场的方向
B. The orientation of the magnetic field ✗
磁场的方向
C. The ratio of the energy in the magnetic field to the energy in the electric field ✗
磁场中的能量与电场中的能量之比
D. The ratio of the velocity to the wavelength ✗
速度与波长之比

T3B03. What are the two components of a radio wave?
无线电波的两个成分是什么?

A. Impedance and reactance ✗
阻抗和电抗
B. Voltage and current ✗
电压和电流
C. Electric and magnetic fields ✓
电场和磁场
D. Ionizing and non-ionizing radiation ✗
电离辐射和非电离辐射

T3B04. What is the velocity of a radio wave traveling through free space?
无线电波在自由空间中传播的速度是多少?

A. Speed of light ✓
光速
B. Speed of sound ✗
声速
C. Speed inversely proportional to its wavelength ✗
速度与其波长成反比
D. Speed that increases as the frequency increases ✗
随频率增加而增加的速度

T3B05. What is the relationship between wavelength and frequency?
波长和频率之间的关系是什么?

A. Wavelength gets longer as frequency increases ✗
随着频率的增加，波长变长
B. Wavelength gets shorter as frequency increases ✓
随着频率的增加，波长变短
C. Wavelength and frequency are unrelated ✗
波长和频率无关
D. Wavelength and frequency increase as path length increases ✗
波长和频率随着路径长度的增加而增加

T3B06. What is the formula for converting frequency to approximate wavelength in meters?
将频率转换为近似波长（以米为单位）的公式是什么?

A. Wavelength in meters equals frequency in hertz multiplied by 300 ✗
以米为单位的波长等于以赫兹为单位的频率乘以300
B. Wavelength in meters equals frequency in hertz divided by 300 ✗
以米为单位的波长等于以赫兹为单位的频率除以300
C. Wavelength in meters equals frequency in megahertz divided by 300 ✗
以米为单位的波长等于以兆赫为单位的频率除以300
D. Wavelength in meters equals 300 divided by frequency in megahertz ✓
波长（米）等于300除以频率（兆赫）

T3B07. In addition to frequency, which of the following is used to identify amateur radio bands?
除了频率，以下哪一项用于识别业余无线电波段?

A. The approximate wavelength in meters ✓
近似波长（以米为单位）
B. Traditional letter/number designators ✗
传统字母/数字指示符
C. Channel numbers ✗
通道编号
D. All these choices are correct ✗
所有这些选择都是正确的

T3B08. What frequency range is referred to as VHF?
甚高频的频率范围是什么?

A. 30 kHz to 300 kHz ✗
30 kHz至300 kHz
B. 30 MHz to 300 MHz ✓
30 MHz至300 MHz
C. 300 kHz to 3000 kHz ✗
300 kHz至3000 kHz
D. 300 MHz to 3000 MHz ✗
300 MHz至3000 MHz

T3B09. What frequency range is referred to as UHF?
什么频率范围被称为超高频?

A. 30 to 300 kHz ✗
30至300千赫
B. 30 to 300 MHz ✗
30至300 MHz
C. 300 to 3000 kHz ✗
300至3000千赫
D. 300 to 3000 MHz ✓
300至3000 MHz

T3B10. What frequency range is referred to as HF?
什么频率范围被称为HF?

A. 300 to 3000 MHz ✗
300至3000 MHz
B. 30 to 300 MHz ✗
30至300 MHz
C. 3 to 30 MHz ✓
3至30 MHz
D. 300 to 3000 kHz ✗
300至3000千赫

T3B11. What is the approximate velocity of a radio wave in free space?
无线电波在自由空间中的近似速度是多少?

A. 150,000 meters per second ✗
每秒150000米
B. 300,000,000 meters per second ✓
每秒30000000米
C. 300,000,000 miles per hour ✗
30000000英里/小时
D. 150,000 miles per hour ✗
每小时150000英里

T3C Propagation modes: sporadic E, meteor scatter, auroral propagation, tropospheric ducting; F region skip; Line of sight and radio horizon
传播模式：零星E、流星散射、极光传播、对流层传导；F区域跳跃；视线和无线电地平线

T3C01. Why are simplex UHF signals rarely heard beyond their radio horizon?
为什么单工超高频信号很少在无线电范围之外被听到?

A. They are too weak to go very far ✗
他们太弱了，走不了多远
B. FCC regulations prohibit them from going more than 50 miles ✗
FCC规定禁止他们行驶超过50英里
C. UHF signals are usually not propagated by the ionosphere ✓
超高频信号通常不会通过电离层传播
D. UHF signals are absorbed by the ionospheric D region ✗
超高频信号被电离层D区吸收

T3C02. What is a characteristic of HF communication compared with communications on VHF and higher frequencies?
与甚高频和更高频率的通信相比，高频通信的特点是什么?

A. HF antennas are generally smaller ✗
HF天线通常较小
B. HF accommodates wider bandwidth signals ✗
HF可容纳更宽带宽的信号
C. Long-distance ionospheric propagation is far more common on HF ✓
电离层在高频上的远距离传播要常见得多
D. There is less atmospheric interference (static) on HF ✗
HF受到的大气干扰（静态）较少

T3C03. What is a characteristic of VHF signals received via auroral backscatter?
通过极光反向散射接收的甚高频信号的特征是什么?

A. They are often received from 10,000 miles or more ✗
它们通常从10000英里或更远的地方接收
B. They are distorted and signal strength varies considerably ✓
它们失真，信号强度变化很大
C. They occur only during winter nighttime hours ✗
它们只发生在冬季夜间
D. They are generally strongest when your antenna is aimed west ✗
当你的天线指向西方时，它们通常是最强的

T3C04. Which of the following types of propagation is most commonly associated with occasional strong signals on the 10, 6, and 2 meter bands from beyond the radio horizon?
以下哪种类型的传播最常见于来自无线电地平线之外的10米、6米和2米波段上的偶尔强信号?

A. Backscatter ✗
反向散射
B. Sporadic E ✓
零星E
C. D region absorption ✗
D区吸收
D. Gray-line propagation ✗
灰线传播

T3C05. Which of the following effects may allow radio signals to travel beyond obstructions between the transmitting and receiving stations?
以下哪种影响可能会使无线电信号在发射站和接收站之间越过障碍物?

A. Knife-edge diffraction ✓
刀刃衍射
B. Faraday rotation ✗
法拉第旋转
C. Quantum tunneling ✗
量子隧穿
D. Doppler shift ✗
多普勒频移

T3C06. What type of propagation is responsible for allowing over-the-horizon VHF and UHF communications to ranges of approximately 300 miles on a regular basis?
什么类型的传播负责允许超视距VHF和UHF通信定期覆盖大约300英里的范围?

A. Tropospheric ducting ✓
对流层导管
B. D region refraction ✗
D区折射
C. F2 region refraction ✗
F2区域折射
D. Faraday rotation ✗
法拉第旋转

T3C07. What band is best suited for communicating via meteor scatter?
哪种波段最适合通过流星散射进行通信?

A. 33 centimeters ✗
33厘米
B. 6 meters ✓
6米
C. 2 meters ✗
2米
D. 70 centimeters ✗
70厘米

T3C08. What causes tropospheric ducting?
是什么导致对流层传导?

A. Discharges of lightning during electrical storms ✗
电风暴期间的闪电放电
B. Sunspots and solar flares ✗
太阳黑子和太阳耀斑
C. Updrafts from hurricanes and tornadoes ✗
飓风和龙卷风的上升气流
D. Temperature inversions in the atmosphere ✓
大气中的温度反演

T3C09. What is generally the best time for long-distance 10 meter band propagation via the F region?
通常情况下，通过F区域进行10米波段长距离传播的最佳时间是什么?

A. From dawn to shortly after sunset during periods of high sunspot activity ✓
在太阳黑子活动频繁的时期，从黎明到日落后不久
B. From shortly after sunset to dawn during periods of high sunspot activity ✗
在太阳黑子活动频繁的时期，从日落后不久到黎明
C. From dawn to shortly after sunset during periods of low sunspot activity ✗
在太阳黑子活动较低的时期，从黎明到日落后不久
D. From shortly after sunset to dawn during periods of low sunspot activity ✗
从日落后不久到太阳黑子活动较低时期的黎明

T3C10. Which of the following bands may provide long-distance communications via the ionosphere's F region during the peak of the sunspot cycle?
以下哪一个波段可以在太阳黑子周期的高峰期通过电离层的F区提供远距离通信?

A. 6 and 10 meters ✓
6米和10米
B. 23 centimeters ✗
23厘米
C. 70 centimeters and 1.25 meters ✗
70厘米1.25米
D. All these choices are correct ✗
所有这些选择都是正确的

T3C11. Why is the radio horizon for VHF and UHF signals more distant than the visual horizon?
为什么甚高频和超高频信号的无线电地平线比视觉地平线更远?

A. Radio signals move somewhat faster than the speed of light ✗
无线电信号的传播速度略快于光速
B. Radio waves are not blocked by dust particles ✗
无线电波不会被灰尘颗粒阻挡
C. The atmosphere refracts radio waves slightly ✓
大气层轻微地折射无线电波
D. Radio waves are blocked by dust particles ✗
无线电波被尘粒阻挡

T4 AMATEUR RADIO PRACTICES
业余无线电练习

T4A Station setup: connecting a microphone, a power source, a computer, digital equipment, an SWR meter; bonding; Mobile radio installation
站点设置：连接麦克风、电源、计算机、数字设备、SWR表；粘接；移动无线电装置

T4A01. Which of the following is an appropriate power supply rating for a typical 50 watt output mobile FM transceiver?
对于典型的50瓦输出移动调频收发器，以下哪项是合适的电源额定值?

A. 24.0 volts at 4 amperes ✗
24.0伏，4安培
B. 13.8 volts at 4 amperes ✗
13.8伏，4安培
C. 24.0 volts at 12 amperes ✗
24.0伏，12安培
D. 13.8 volts at 12 amperes ✓
13.8伏，12安培

T4A02. Which of the following should be considered when selecting an accessory SWR meter?
选择附件SWR表时应考虑以下哪一项?

A. The frequency and power level at which the measurements will be made ✓
进行测量的频率和功率水平
B. The distance that the meter will be located from the antenna ✗
仪表与天线的距离
C. The types of modulation being used at the station ✗
台站使用的调制类型
D. All these choices are correct ✗
所有这些选择都是正确的

T4A03. Why are short, heavy-gauge wires used for a transceiver's DC power connection?
为什么收发器的直流电源连接使用短而粗的电线?

A. To minimize voltage drop when transmitting ✓
传输时尽量减少电压降
B. To provide a good counterpoise for the antenna ✗
为天线提供良好的平衡
C. To avoid RF interference ✗
避免射频干扰
D. All these choices are correct ✗
所有这些选择都是正确的

T4A04. How are the transceiver audio input and output connected in a station configured to operate using FT8?
在配置为使用FT8操作的电台中，收发器音频输入和输出是如何连接的?

A. To a computer running a terminal program and connected to a terminal node controller unit ✗
到运行终端程序并连接到终端节点控制器单元的计算机
B. To the audio input and output of a computer running WSJT-X software ✓
至运行WSJT-X软件的计算机的音频输入和输出
C. To an FT8 conversion unit, a keyboard, and a computer monitor ✗
到FT8转换单元、键盘和计算机监视器
D. To a computer connected to the FT8converter.com website ✗
连接到FT8converter.com网站的计算机

T4A05. Where should an RF power meter be installed?
射频功率计应安装在哪里?

A. In the feed line, between the transmitter and antenna ✓
在发射器和天线之间的馈线中
B. At the power supply output ✗
在电源输出处
C. In parallel with the push-to-talk line and the antenna ✗
与按键通话线路和天线平行
D. In the power supply cable, as close as possible to the radio ✗
在电源电缆中，尽可能靠近收音机

T4A06. What signals are used in a computer-radio interface for digital mode operation?
在数字模式操作的计算机无线电接口中使用了哪些信号?

A. Receive and transmit mode, status, and location ✗
接收和传输模式、状态和位置
B. Antenna and RF power ✗
天线和射频功率
C. Receive audio, transmit audio, and transmitter keying ✓
接收音频、发送音频和发射器键控
D. NMEA GPS location and DC power ✗
NMEA GPS定位和直流电源

T4A07. Which of the following connections is made between a computer and a transceiver to use computer software when operating digital modes?
以下哪种连接是在计算机和收发器之间进行的，以便在操作数字模式时使用计算机软件?

A. Computer “line out” to transceiver push-to-talk ✗
电脑“排队”收发信机按键通话
B. Computer “line in” to transceiver push-to-talk ✗
计算机“线路接入”收发器按键通话
C. Computer “line in” to transceiver speaker connector ✓
计算机“线路输入”至收发器扬声器连接器
D. Computer “line out” to transceiver speaker connector ✗
计算机“线路输出”至收发器扬声器连接器

T4A08. Which of the following conductors is preferred for bonding at RF?
以下哪种导体更适合在射频下接合?

A. Copper braid removed from coaxial cable ✗
从同轴电缆上拆下铜编织物
B. Steel wire ✗
钢丝
C. Twisted-pair cable ✗
双绞线
D. Flat copper strap ✓
扁铜带

T4A09. How can you determine the length of time that equipment can be powered from a battery?
如何确定设备由电池供电的时间长度?

A. Divide the watt-hour rating of the battery by the peak power consumption of the equipment ✗
将电池的额定功率除以设备的峰值功耗
B. Divide the battery ampere-hour rating by the average current draw of the equipment ✓
将电池额定电流除以设备的平均电流
C. Multiply the watts per hour consumed by the equipment by the battery power rating ✗
将设备每小时消耗的瓦特数乘以电池额定功率
D. Multiply the square of the current rating of the battery by the input resistance of the equipment ✗
将电池额定电流的平方乘以设备的输入电阻

T4A10. What function is performed with a transceiver and a digital mode hot spot?
收发器和数字模式热点执行什么功能?

A. Communication using digital voice or data systems via the internet ✓
通过互联网使用数字语音或数据系统进行通信
B. FT8 digital communications via AFSK ✗
通过AFSK的FT8数字通信
C. RTTY encoding and decoding without a computer ✗
RTTY编码和解码无需计算机
D. High-speed digital communications for meteor scatter ✗
流星散射的高速数字通信

T4A11. Where should the negative power return of a mobile transceiver be connected in a vehicle?
移动收发器的负电源回路应连接在车辆的何处?

A. At the 12 volt battery chassis ground ✓
在12伏蓄电池底盘接地处
B. At the antenna mount ✗
在天线支架上
C. To any metal part of the vehicle ✗
至车辆的任何金属部件
D. Through the transceiver's mounting bracket ✗
通过收发器的安装支架

T4A12. What is an electronic keyer?
什么是电子钥匙?

A. A device for switching antennas from transmit to receive ✗
一种用于将天线从发射切换到接收的设备
B. A device for voice activated switching from receive to transmit ✗
一种用于语音激活从接收切换到发送的设备
C. A device that assists in manual sending of Morse code ✓
一种帮助手动发送莫尔斯电码的设备
D. An interlock to prevent unauthorized use of a radio ✗
防止未经授权使用无线电的联锁装置

T4B Operating controls: frequency tuning, use of filters, squelch function, AGC, memory channels, noise blanker, microphone gain, receiver incremental tuning (RIT), bandwidth selection, digital transceiver configuration
操作控制：频率调谐、滤波器的使用、静噪功能、AGC、存储通道、噪声抑制器、麦克风增益、接收器增量调谐（RIT）、带宽选择、数字收发器配置

T4B01. What is the effect of excessive microphone gain on SSB transmissions?
麦克风增益过大对单边带传输有什么影响?

A. Frequency instability ✗
频率不稳定性
B. Distorted transmitted audio ✓
传输音频失真
C. Increased SWR ✗
SWR增加
D. All these choices are correct ✗
所有这些选择都是正确的

T4B02. Which of the following can be used to enter a transceiver's operating frequency?
以下哪项可用于输入收发器的工作频率?

A. The keypad or VFO knob ✓
键盘或VFO旋钮
B. The CTCSS or DTMF encoder ✗
CTCSS或DTMF编码器
C. The Automatic Frequency Control ✗
自动频率控制
D. All these choices are correct ✗
所有这些选择都是正确的

T4B03. How is squelch adjusted so that a weak FM signal can be heard?
如何调整静噪，以便可以听到微弱的调频信号?

A. Set the squelch threshold so that receiver output audio is on all the time ✓
设置静噪阈值，使接收器输出音频始终打开
B. Turn up the audio level until it overcomes the squelch threshold ✗
调高音频电平，直到它超过静噪阈值
C. Turn on the anti-squelch function ✗
打开防静噪功能
D. Enable squelch enhancement ✗
启用静噪增强

T4B04. What is a way to enable quick access to a favorite frequency or channel on your transceiver?
有什么方法可以在收发器上快速访问喜爱的频率或频道?

A. Enable the frequency offset ✗
启用频率偏移
B. Store it in a memory channel ✓
将其存储在内存通道中
C. Enable the VOX ✗
启用VOX
D. Use the scan mode to select the desired frequency ✗
使用扫描模式选择所需频率

T4B05. What does the scanning function of an FM transceiver do?
调频收发器的扫描功能是什么?

A. Checks incoming signal deviation ✗
检查输入信号偏差
B. Prevents interference to nearby repeaters ✗
防止干扰附近的中继器
C. Tunes through a range of frequencies to check for activity ✓
调整一系列频率以检查活动
D. Checks for messages left on a digital bulletin board ✗
检查数字公告板上留下的信息

T4B06. Which of the following controls could be used if the voice pitch of a single-sideband signal returning to your CQ call seems too high or low?
如果返回到CQ呼叫的单边带信号的音高过高或过低，可以使用以下哪种控制?

A. The AGC or limiter ✗
AGC或限制器
B. The bandwidth selection ✗
带宽选择
C. The tone squelch ✗
音调静噪
D. The RIT or Clarifier ✓
RIT或澄清器

T4B07. What does a DMR "code plug" contain?
DMR"代码插件"包含什么?

A. Your call sign in CW for automatic identification ✗
您的呼叫登录CW以进行自动识别
B. Access information for repeaters and talkgroups ✓
中继器和通话组的接入信息
C. The codec for digitizing audio ✗
用于数字化音频的编解码器
D. The DMR software version ✗
DMR软件版本

T4B08. What is the advantage of having multiple receive bandwidth choices on a multimode transceiver?
在多模收发器上选择多个接收带宽有什么好处?

A. Permits monitoring several modes at once by selecting a separate filter for each mode ✗
通过为每个模式选择单独的过滤器，允许同时监控多个模式
B. Permits noise or interference reduction by selecting a bandwidth matching the mode ✓
允许通过选择与模式匹配的带宽来减少噪声或干扰
C. Increases the number of frequencies that can be stored in memory ✗
增加可存储在内存中的频率数量
D. Increases the amount of offset between receive and transmit frequencies ✗
增加接收频率和发射频率之间的偏移量

T4B09. How is a specific group of stations selected on a digital voice transceiver?
如何在数字语音收发器上选择一组特定的电台?

A. By retrieving the frequencies from transceiver memory ✗
通过从收发器存储器中检索频率
B. By enabling the group's CTCSS tone ✗
通过启用组的CTCSS音调
C. By entering the group's identification code ✓
通过输入组的识别码
D. By activating automatic identification ✗
通过激活自动识别

T4B10. Which of the following receiver filter bandwidths provides the best signal-to-noise ratio for SSB reception?
以下哪种接收机滤波器带宽为SSB接收提供了最佳的信噪比?

A. 500 Hz ✗
500赫兹
B. 1000 Hz ✗
1000赫兹
C. 2400 Hz ✓
2400赫兹
D. 5000 Hz ✗
5000赫兹

T4B11. Which of the following must be programmed into a D-STAR digital transceiver before transmitting?
在发送之前，以下哪项必须编程到D-STAR数字收发器中?

A. Your call sign ✓
你的呼号
B. Your output power ✗
您的输出功率
C. The codec type being used ✗
正在使用的编解码器类型
D. All these choices are correct ✗
所有这些选择都是正确的

T4B12. What is the result of tuning an FM receiver above or below a signal's frequency?
将调频接收机调谐到高于或低于信号频率的结果是什么?

A. Change in audio pitch ✗
音频音调变化
B. Sideband inversion ✗
边带反转
C. Generation of a heterodyne tone ✗
外差音调的产生
D. Distortion of the signal's audio ✓
信号音频失真

T5 ELECTRICAL PRINCIPLES
电学原理

T5A Current and voltage: terminology and units, conductors and insulators, alternating and direct current
电流和电压：术语和单位，导体和绝缘体，交流和直流

T5A01. Electrical current is measured in which of the following units?
电流是用以下哪一个单位测量的?

A. Volts ✗
伏特
B. Watts ✗
瓦特
C. Ohms ✗
欧姆
D. Amperes ✓
安培

T5A02. Electrical power is measured in which of the following units?
用下列哪一个单位测量电力?

A. Volts ✗
伏特
B. Watts ✓
瓦特
C. Watt-hours ✗
瓦时
D. Amperes ✗
安培

T5A03. What is the name for the flow of electrons in an electric circuit?
电路中的电子流叫什么名字?

A. Voltage ✗
电压
B. Resistance ✗
反对
C. Capacitance ✗
电容
D. Current ✓
现在的

T5A04. What are the units of electrical resistance?
电阻的单位是多少?

A. Siemens ✗
西门子
B. Mhos ✗
姆欧
C. Ohms ✓
欧姆
D. Coulombs ✗
库仑

T5A05. What is the electrical term for the force that causes electron flow?
引起电子流的力的电学术语是什么?

A. Voltage ✓
电压
B. Ampere-hours ✗
安培小时
C. Capacitance ✗
电容
D. Inductance ✗
电感

T5A06. What is the unit of frequency?
频率的单位是多少?

A. Hertz ✓
赫兹
B. Henry ✗
亨利
C. Farad ✗
法拉
D. Tesla ✗
特斯拉

T5A07. Why are metals generally good conductors of electricity?
为什么金属通常是电的良导体?

A. They have relatively high density ✗
它们的密度相对较高
B. They have many free electrons ✓
它们有许多自由电子
C. They have many free protons ✗
它们有许多自由质子
D. All these choices are correct ✗
所有这些选择都是正确的

T5A08. Which of the following is a good electrical insulator?
以下哪一项是好的电绝缘体?

A. Copper ✗
铜
B. Glass ✓
玻璃
C. Aluminum ✗
铝
D. Mercury ✗
水星

T5A09. Which of the following describes alternating current?
下列哪一项描述交流电?

A. Current that alternates between a positive direction and zero ✗
在正方向和零之间交替的电流
B. Current that alternates between a negative direction and zero ✗
在负方向和零之间交替的电流
C. Current that alternates between positive and negative directions ✓
在正方向和负方向之间交替的电流
D. All these answers are correct ✗
所有这些答案都是正确的

T5A10. Which term describes the rate at which electrical energy is used?
哪个术语描述了电能的使用率?

A. Resistance ✗
反对
B. Current ✗
现在的
C. Power ✓
权力
D. Voltage ✗
电压

T5A11. What type of current flow is opposed by resistance?
什么类型的电流与电阻相反?

A. Direct current ✗
直流
B. Alternating current ✗
交流电
C. RF current ✗
射频电流
D. All these choices are correct ✓
所有这些选择都是正确的

T5A12. What describes the number of times per second that an alternating current makes a complete cycle?
交流电流每秒完成一个完整循环的次数是多少?

A. Pulse rate ✗
脉冲频率
B. Speed ✗
速度
C. Wavelength ✗
波长
D. Frequency ✓
频率

T5B Math for electronics: conversion of electrical units, decibels
电子数学：电气单位的转换，分贝

T5B01. How many milliamperes is 1.5 amperes?
1.5安培是多少毫安?

A. 15 milliamperes ✗
15毫安
B. 150 milliamperes ✗
150毫安
C. 1500 milliamperes ✓
1500毫安
D. 15,000 milliamperes ✗
15000毫安

T5B02. Which is equal to 1,500,000 hertz?
哪个等于1500000赫兹?

A. 1500 kHz ✓
1500千赫
B. 1500 MHz ✗
1500兆赫
C. 15 GHz ✗
15千兆赫
D. 150 kHz ✗
150千赫

T5B03. Which is equal to one kilovolt?
哪个等于1千伏?

A. One one-thousandth of a volt ✗
千分之一伏特
B. One hundred volts ✗
一百伏
C. One thousand volts ✓
一千伏
D. One million volts ✗
一百万伏

T5B04. Which is equal to one microvolt?
哪个等于一微伏?

A. One one-millionth of a volt ✓
百万分之一伏特
B. One million volts ✗
一百万伏
C. One thousand kilovolts ✗
一千千伏
D. One one-thousandth of a volt ✗
千分之一伏特

T5B05. Which is equal to 500 milliwatts?
哪个等于500毫瓦?

A. 0.02 watts ✗
0.02瓦
B. 0.5 watts ✓
0.5瓦
C. 5 watts ✗
5瓦
D. 50 watts ✗
50瓦

T5B06. Which is equal to 3000 milliamperes?
哪个等于3000毫安?

A. 0.003 amperes ✗
0.003安培
B. 0.3 amperes ✗
0.3安培
C. 3,000,000 amperes ✗
3000000安培
D. 3 amperes ✓
3安培

T5B07. Which is equal to 3.525 MHz?
哪个等于3.525 MHz?

A. 0.001 microfarads ✗
0.001微法
B. 1 microfarad ✗
1微法拉
C. 1000 microfarads ✓
1000微法
D. 1,000,000,000 microfarads ✗
1000000000微法

T5B09. Which decibel value most closely represents a power increase from 5 watts to 10 watts?
哪个分贝值最能代表功率从5瓦增加到10瓦?

A. 2 dB ✗
2分贝
B. 3 dB ✓
3分贝
C. 5 dB ✗
5分贝
D. 10 dB ✗
10分贝

T5B10. Which decibel value most closely represents a power decrease from 12 watts to 3 watts?
哪个分贝值最能代表功率从12瓦下降到3瓦?

A. -1 dB ✗
-1分贝
B. -3 dB ✗
-3分贝
C. -6 dB ✓
-6分贝
D. -9 dB ✗
-9分贝

T5B11. Which decibel value represents a power increase from 20 watts to 200 watts?
哪个分贝值代表功率从20瓦增加到200瓦?

A. 10 dB ✓
10分贝
B. 12 dB ✗
12分贝
C. 18 dB ✗
18分贝
D. 28 dB ✗
28分贝

T5B12. Which is equal to 28400 kHz?
哪个等于28400千赫?

A. 28.400 kHz ✗
28.400千赫
B. 2.800 MHz ✗
2.800兆赫
C. 284.00 MHz ✗
284.00兆赫
D. 28.400 MHz ✓
28.400兆赫

T5B13. Which is equal to 2425 MHz?
哪个等于2425 MHz?

A. 0.002425 GHz ✗
0.002425千兆赫
B. 24.25 GHz ✗
24.25千兆赫
C. 2.425 GHz ✓
D. 2425 GHz ✗
2425千兆赫

T5C Capacitance and inductance terminology and units; Radio frequency definition and units; Impedance definition and units; Calculating power
电容和电感术语和单位；无线电频率定义和单位；阻抗定义和单位；计算功率

T5C01. What describes the ability to store energy in an electric field?
什么描述了在电场中储存能量的能力?

A. Inductance ✗
电感
B. Resistance ✗
反对
C. Tolerance ✗
容忍
D. Capacitance ✓
电容

T5C02. What is the unit of capacitance?
电容的单位是多少?

A. The farad ✓
法拉
B. The ohm ✗
欧姆
C. The volt ✗
伏特
D. The henry ✗
亨利

T5C03. What describes the ability to store energy in a magnetic field?
什么描述了在磁场中储存能量的能力?

A. Admittance ✗
进入权
B. Capacitance ✗
电容
C. Resistance ✗
反对
D. Inductance ✓
电感

T5C04. What is the unit of inductance?
电感的单位是多少?

A. The coulomb ✗
库仑
B. The farad ✗
法拉
C. The henry ✓
亨利
D. The ohm ✗
欧姆

T5C05. What is the unit of impedance?
阻抗的单位是多少?

A. The volt ✗
伏特
B. The ampere ✗
安培
C. The coulomb ✗
库仑
D. The ohm ✓
欧姆

T5C06. What does the abbreviation “RF” mean?
缩写“RF”是什么意思?

A. Radio frequency signals of all types ✓
所有类型的射频信号
B. The resonant frequency of a tuned circuit ✗
调谐电路的谐振频率
C. The real frequency transmitted as opposed to the apparent frequency ✗
传输的实际频率与视在频率相反
D. Reflective force in antenna transmission lines ✗
天线传输线中的反射力

T5C07. What is the abbreviation for megahertz?
兆赫的缩写是什么?

A. MH ✗
B. mh ✗
C. Mhz ✗
D. MHz ✓

T5C08. What is the formula used to calculate electrical power (P) in a DC circuit?
直流电路中用于计算电功率（P）的公式是什么?

A. P = I E ✓
P=I E
B. P = E / I ✗
P=E/I
C. P = E – I ✗
P=E–I
D. P = I + E ✗
P=I+E

T5C09. How much power is delivered by a voltage of 13.8 volts DC and a current of 10 amperes?
13.8伏直流电压和10安培电流能提供多少功率?

A. 138 watts ✓
138瓦
B. 0.7 watts ✗
0.7瓦
C. 23.8 watts ✗
23.8瓦
D. 3.8 watts ✗
3.8瓦

T5C10. How much power is delivered by a voltage of 12 volts DC and a current of 2.5 amperes?
12伏直流电压和2.5安培电流能提供多少功率?

A. 4.8 watts ✗
4.8瓦
B. 30 watts ✓
30瓦
C. 14.5 watts ✗
14.5瓦
D. 0.208 watts ✗
0.208瓦

T5C11. How much current is required to deliver 120 watts at a voltage of 12 volts DC?
在12伏直流电压下，需要多少电流才能提供120瓦的功率?

A. 0.1 amperes ✗
0.1安培
B. 10 amperes ✓
10安培
C. 12 amperes ✗
12安培
D. 132 amperes ✗
132安培

T5C12. What is impedance?
什么是阻抗?

A. The opposition to AC current flow ✓
交流电流的反向
B. The inverse of resistance ✗
电阻的倒数
C. The Q or Quality Factor of a component ✗
组件的Q或质量因子
D. The power handling capability of a component ✗
组件的功率处理能力

T5C13. What is the abbreviation for kilohertz?
千赫的缩写是什么?

A. KHZ ✗
B. khz ✗
C. khZ ✗
D. kHz ✓

T5D Ohm's Law; Series and parallel circuits
欧姆定律；串联和并联电路

T5D01. What formula is used to calculate current in a circuit?
用什么公式来计算电路中的电流?

A. I = E R ✗
I=E R
B. I = E / R ✓
I=E/R
C. I = E + R ✗
I=E+R
D. I = E - R ✗
I=E-R

T5D02. What formula is used to calculate voltage in a circuit?
用什么公式来计算电路中的电压?

A. E = I x R ✓
E=I x R
B. E = I / R ✗
E=I/R
C. E = I + R ✗
E=I+R
D. E = I - R ✗
E=I-R

T5D03. What formula is used to calculate resistance in a circuit?
用什么公式来计算电路中的电阻?

A. R = E x I ✗
R=E x I
B. R = E / I ✓
R=E/I
C. R = E + I ✗
R=E+I
D. R = E - I ✗
R=E-I

T5D04. What is the resistance of a circuit in which a current of 3 amperes flows when connected to 90 volts?
当连接到90伏时，电流为3安培的电路的电阻是多少?

A. 3 ohms ✗
3欧姆
B. 30 ohms ✓
30欧姆
C. 93 ohms ✗
93欧姆
D. 270 ohms ✗
270欧姆

T5D05. What is the resistance of a circuit for which the applied voltage is 12 volts and the current flow is 1.5 amperes?
施加电压为12伏，电流为1.5安培的电路的电阻是多少?

A. 18 ohms ✗
18欧姆
B. 0.125 ohms ✗
0.125欧姆
C. 8 ohms ✓
8欧姆
D. 13.5 ohms ✗
13.5欧姆

T5D06. What is the resistance of a circuit that draws 4 amperes from a 12-volt source?
从12伏电源中汲取4安培电流的电路的电阻是多少?

A. 3 ohms ✓
3欧姆
B. 16 ohms ✗
16欧姆
C. 48 ohms ✗
48欧姆
D. 8 ohms ✗
8欧姆

T5D07. What is the current in a circuit with an applied voltage of 120 volts and a resistance of 80 ohms?
施加电压为120伏、电阻为80欧姆的电路中的电流是多少?

A. 9600 amperes ✗
9600安培
B. 200 amperes ✗
200安培
C. 0.667 amperes ✗
0.667安培
D. 1.5 amperes ✓
1.5安培

T5D08. What is the current through a 100-ohm resistor connected across 200 volts?
通过连接在200伏之间的100欧姆电阻器的电流是多少?

A. 20,000 amperes ✗
20000安培
B. 0.5 amperes ✗
0.5安培
C. 2 amperes ✓
2安培
D. 100 amperes ✗
100安培

T5D09. What is the current through a 24-ohm resistor connected across 240 volts?
跨240伏连接的24欧姆电阻器的电流是多少?

A. 24,000 amperes ✗
24000安培
B. 0.1 amperes ✗
0.1安培
C. 10 amperes ✓
10安培
D. 216 amperes ✗
216安培

T5D10. What is the voltage across a 2-ohm resistor if a current of 0.5 amperes flows through it?
如果0.5安培的电流流过2欧姆电阻器，那么电阻两端的电压是多少?

A. 1 volt ✓
1伏
B. 0.25 volts ✗
0.25伏
C. 2.5 volts ✗
2.5伏
D. 1.5 volts ✗
1.5伏

T5D11. What is the voltage across a 10-ohm resistor if a current of 1 ampere flows through it?
如果有1安培的电流流过10欧姆电阻器，那么电阻器两端的电压是多少?

A. 1 volt ✗
1伏
B. 10 volts ✓
10伏
C. 11 volts ✗
11伏
D. 9 volts ✗
9伏

T5D12. What is the voltage across a 10-ohm resistor if a current of 2 amperes flows through it?
如果有2安培的电流流过10欧姆电阻器，那么电阻器两端的电压是多少?

A. 8 volts ✗
8伏
B. 0.2 volts ✗
0.2伏
C. 12 volts ✗
12伏
D. 20 volts ✓
20伏

T5D13. In which type of circuit is DC current the same through all components?
在哪种类型的电路中，通过所有组件的直流电流相同?

A. Series ✓
系列
B. Parallel ✗
平行的
C. Resonant ✗
嘹亮的
D. Branch ✗
树枝

T5D14. In which type of circuit is voltage the same across all components?
在哪种类型的电路中，所有组件之间的电压相同?

A. Series ✗
系列
B. Parallel ✓
平行的
C. Resonant ✗
嘹亮的
D. Branch ✗
树枝

T6 ELECTRONIC AND ELECTRICAL COMPONENTS
电子和电气元件

T6A Fixed and variable resistors; Capacitors; Inductors; Fuses; Switches; Batteries
固定电阻器和可变电阻器；电容器；电感器；保险丝；开关；蓄电池

T6A01. What electrical component opposes the flow of current in a DC circuit?
在直流电路中，什么电气元件阻碍电流流动?

A. Inductor ✗
电感器
B. Resistor ✓
电阻器
C. Inverter ✗
逆变器
D. Transformer ✗
变压器

T6A02. What type of component is often used as an adjustable volume control?
什么类型的部件经常用作可调音量控制器?

A. Fixed resistor ✗
固定电阻器
B. Power resistor ✗
功率电阻器
C. Potentiometer ✓
电位计
D. Transformer ✗
变压器

T6A03. What electrical parameter is controlled by a potentiometer?
电位计控制什么电气参数?

A. Inductance ✗
电感
B. Resistance ✓
反对
C. Capacitance ✗
电容
D. Field strength ✗
场强

T6A04. What electrical component stores energy in an electric field?
什么电气元件在电场中储存能量?

A. Varistor ✗
压敏电阻器
B. Capacitor ✓
电容器
C. Inductor ✗
电感器
D. Diode ✗
二极管

T6A05. What type of electrical component consists of conductive surfaces separated by an insulator?
什么类型的电气部件由绝缘体分隔的导电表面组成?

A. Resistor ✗
电阻器
B. Potentiometer ✗
电位计
C. Oscillator ✗
振荡器
D. Capacitor ✓
电容器

T6A06. What type of electrical component stores energy in a magnetic field?
什么类型的电气元件在磁场中储存能量?

A. Varistor ✗
压敏电阻器
B. Capacitor ✗
电容器
C. Inductor ✓
电感器
D. Diode ✗
二极管

T6A07. What electrical component is typically constructed as a coil of wire?
什么电气元件通常被构造成线圈?

A. Switch ✗
转换
B. Capacitor ✗
电容器
C. Diode ✗
二极管
D. Inductor ✓
电感器

T6A08. What is the function of an SPDT switch?
SPDT开关的功能是什么?

A. A single circuit is opened or closed ✗
单个电路开路或闭合
B. Two circuits are opened or closed ✗
两条电路开路或闭合
C. A single circuit is switched between one of two other circuits ✓
单个电路在另外两个电路中的一个之间切换
D. Two circuits are each switched between one of two other circuits ✗
两个电路分别在另外两个电路中的一个之间切换

T6A09. What electrical component is used to protect other circuit components from current overloads?
什么电气元件用于保护其他电路元件免受电流过载的影响?

A. Fuse ✓
保险丝
B. Thyratron ✗
闸流管
C. Varactor ✗
D. All these choices are correct ✗
所有这些选择都是正确的

T6A10. Which of the following battery chemistries is rechargeable?
以下哪种电池化学物质是可充电的?

A. Nickel-metal hydride ✗
金属氢化物镍
B. Lithium-ion ✗
锂离子
C. Lead-acid ✗
铅酸
D. All these choices are correct ✓
所有这些选择都是正确的

T6A11. Which of the following battery chemistries is not rechargeable?
以下哪种电池化学物质是不可充电的?

A. Nickel-cadmium ✗
镍镉
B. Carbon-zinc ✓
碳锌
C. Lead-acid ✗
铅酸
D. Lithium-ion ✗
锂离子

T6B Semiconductors: basic principles and applications of solid state devices, diodes and transistors
半导体：固态器件、二极管和晶体管的基本原理和应用

T6B01. Which is true about forward voltage drop in a diode?
关于二极管的正向电压降，哪个是真的?

A. It is lower in some diode types than in others ✓
某些二极管类型的电压比其他二极管类型的低
B. It is proportional to peak inverse voltage ✗
它与峰值反向电压成比例
C. It indicates that the diode is defective ✗
表示二极管有故障
D. It has no impact on the voltage delivered to the load ✗
它对输送到负载的电压没有影响

T6B02. What electronic component allows current to flow in only one direction?
什么电子元件只允许电流朝一个方向流动?

A. Resistor ✗
电阻器
B. Fuse ✗
保险丝
C. Diode ✓
二极管
D. Driven element ✗
从动元件

T6B03. Which of these components can be used as an electronic switch?
这些部件中的哪一个可以用作电子开关?

A. Varistor ✗
压敏电阻器
B. Potentiometer ✗
电位计
C. Transistor ✓
晶体管
D. Thermistor ✗
热敏电阻

T6B04. Which of the following components can consist of three regions of semiconductor material?
以下哪个组件可以由半导体材料的三个区域组成?

A. Alternator ✗
交流发电机
B. Transistor ✓
晶体管
C. Triode ✗
三极管
D. Pentagrid converter ✗
五栅极转换器

T6B05. What type of transistor has a gate, drain, and source?
什么类型的晶体管有栅极、漏极和源极?

A. Varistor ✗
压敏电阻器
B. Field-effect ✓
场效应
C. Tesla-effect ✗
特斯拉效应
D. Bipolar junction ✗
双极结

T6B06. How is the cathode lead of a semiconductor diode often marked on the package?
半导体二极管的阴极引线通常是如何标记在封装上的?

A. With the word "cathode" ✗
带有“阴极”一词
B. With a stripe ✓
带条纹
C. With the letter C ✗
带有字母C
D. With the letter K ✗
带有字母K

T6B07. What causes a light-emitting diode (LED) to emit light?
是什么导致发光二极管（LED）发光?

A. Forward current ✓
正向电流
B. Reverse current ✗
反向电流
C. Capacitively-coupled RF signal ✗
电容耦合RF信号
D. Inductively-coupled RF signal ✗
电感耦合RF信号

T6B08. What does the abbreviation FET stand for?
缩写FET代表什么?

A. Frequency Emission Transmitter ✗
频率发射发射器
B. Fast Electron Transistor ✗
快电子晶体管
C. Free Electron Transmitter ✗
自由电子发射器
D. Field Effect Transistor ✓
场效应晶体管

T6B09. What are the names for the electrodes of a diode?
二极管电极的名称是什么?

A. Plus and minus ✗
加减法
B. Source and drain ✗
源和漏
C. Anode and cathode ✓
阳极和阴极
D. Gate and base ✗
闸门和底座

T6B10. Which of the following can provide power gain?
以下哪项可以提供功率增益?

A. Transformer ✗
变压器
B. Transistor ✓
晶体管
C. Reactor ✗
核反应堆
D. Resistor ✗
电阻器

T6B11. What is the term that describes a device's ability to amplify a signal?
描述设备放大信号的能力的术语是什么?

A. Gain ✓
获得
B. Forward resistance ✗
正向电阻
C. Forward voltage drop ✗
正向电压降
D. On resistance ✗
接通电阻

T6B12. What are the names of the electrodes of a bipolar junction transistor?
双极结型晶体管的电极名称是什么?

A. Signal, bias, power ✗
信号、偏置、功率
B. Emitter, base, collector ✓
发射器、底座、收集器
C. Input, output, supply ✗
输入、输出、电源
D. Pole one, pole two, output ✗
极点一，极点二，输出

T6C Circuit diagrams: use of schematics, basic structure; Schematic symbols of basic components
电路图：使用原理图，基本结构；基本部件的示意符号

T6C01. What is the name of an electrical wiring diagram that uses standard component symbols?
使用标准部件符号的电气线路图的名称是什么?

A. Bill of materials ✗
物料清单
B. Connector pinout ✗
连接器引脚输出
C. Schematic ✓
略图的
D. Flow chart ✗
流程图

T6C02. What is component 1 in figure T-1?
图T-1中的部件1是什么?

A. Resistor ✓
电阻器
B. Transistor ✗
晶体管
C. Battery ✗
电池
D. Connector ✗
连接器

T6C03. What is component 2 in figure T-1?
图T-1中的组件2是什么?

A. Resistor ✗
电阻器
B. Transistor ✓
晶体管
C. Indicator lamp ✗
指示灯
D. Connector ✗
连接器

T6C04. What is component 3 in figure T-1?
图T-1中的组件3是什么?

A. Resistor ✗
电阻器
B. Transistor ✗
晶体管
C. Lamp ✓
灯
D. Ground symbol ✗
接地符号

T6C05. What is component 4 in figure T-1?
图T-1中的部件4是什么?

A. Resistor ✗
电阻器
B. Transistor ✗
晶体管
C. Ground symbol ✗
接地符号
D. Battery ✓
电池

T6C06. What is component 6 in figure T-2?
图T-2中的部件6是什么?

A. Resistor ✗
电阻器
B. Capacitor ✓
电容器
C. Regulator IC ✗
调节器IC
D. Transistor ✗
晶体管

T6C07. What is component 8 in figure T-2?
图T-2中的部件8是什么?

A. Resistor ✗
电阻器
B. Inductor ✗
电感器
C. Regulator IC ✗
调节器IC
D. Light emitting diode ✓
发光二极管

T6C08. What is component 9 in figure T-2?
图T-2中的部件9是什么?

A. Variable capacitor ✗
可变电容器
B. Variable inductor ✗
可变电感器
C. Variable resistor ✓
可变电阻器
D. Variable transformer ✗
可变变压器

T6C09. What is component 4 in figure T-2?
图T-2中的部件4是什么?

A. Variable inductor ✗
可变电感器
B. Double-pole switch ✗
双极开关
C. Potentiometer ✗
电位计
D. Transformer ✓
变压器

T6C10. What is component 3 in figure T-3?
图T-3中的部件3是什么?

A. Connector ✗
连接器
B. Meter ✗
米
C. Variable capacitor ✗
可变电容器
D. Variable inductor ✓
可变电感器

T6C11. What is component 4 in figure T-3?
图T-3中的部件4是什么?

A. Antenna ✓
天线
B. Transmitter ✗
变送器
C. Dummy load ✗
假负载
D. Ground ✗
地

T6C12. Which of the following is accurately represented in electrical schematics?
以下哪一项在电气原理图中得到了准确表示?

A. Wire lengths ✗
电线长度
B. Physical appearance of components ✗
部件的物理外观
C. Component connections ✓
组件连接
D. All these choices are correct ✗
所有这些选择都是正确的

T6D Component functions: rectifiers, relays, voltage regulators, meters, indicators, integrated circuits, transformers; Resonant circuit; Shielding
元件功能：整流器、继电器、电压调节器、仪表、指示器、集成电路、变压器；谐振电路；屏蔽

T6D01. Which of the following devices or circuits changes an alternating current into a varying direct current signal?
以下哪种设备或电路将交流电转换为变化的直流信号?

A. Transformer ✗
变压器
B. Rectifier ✓
整流器
C. Amplifier ✗
放大器
D. Reflector ✗
反射器

T6D02. What is a relay?
什么是继电器?

A. An electrically-controlled switch ✓
电控开关
B. A current controlled amplifier ✗
电流控制放大器
C. An inverting amplifier ✗
反相放大器
D. A pass transistor ✗
一个传输晶体管

T6D03. Which of the following is a reason to use shielded wire?
以下哪项是使用屏蔽线的原因?

A. To decrease the resistance of DC power connections ✗
降低直流电源连接的电阻
B. To increase the current carrying capability of the wire ✗
增加电线的载流能力
C. To prevent coupling of unwanted signals to or from the wire ✓
防止不需要的信号与导线耦合或从导线耦合
D. To couple the wire to other signals ✗
将导线连接到其他信号

T6D04. Which of the following displays an electrical quantity as a numeric value?
以下哪项将电量显示为数值?

A. Potentiometer ✗
电位计
B. Transistor ✗
晶体管
C. Meter ✓
米
D. Relay ✗
转发

T6D05. What type of circuit controls the amount of voltage from a power supply?
什么类型的电路控制来自电源的电压量?

A. Regulator ✓
监管者
B. Oscillator ✗
振荡器
C. Filter ✗
滤器
D. Phase inverter ✗
相位逆变器

T6D06. What component changes 120 V AC power to a lower AC voltage for other uses?
什么部件将120 V交流电源转换为较低的交流电压用于其他用途?

A. Variable capacitor ✗
可变电容器
B. Transformer ✓
变压器
C. Transistor ✗
晶体管
D. Diode ✗
二极管

T6D07. Which of the following is commonly used as a visual indicator?
以下哪项常用作视觉指示器?

A. LED ✓
B. FET ✗
场效应晶体管
C. Zener diode ✗
齐纳二极管
D. Bipolar transistor ✗
双极晶体管

T6D08. Which of the following is combined with an inductor to make a resonant circuit?
以下哪一项与电感器相结合以形成谐振电路?

A. Resistor ✗
电阻器
B. Zener diode ✗
齐纳二极管
C. Potentiometer ✗
电位计
D. Capacitor ✓
电容器

T6D09. What is the name of a device that combines several semiconductors and other components into one package?
将几种半导体和其他组件组合在一个封装中的设备的名称是什么?

A. Transducer ✗
传感器
B. Multi-pole relay ✗
多极继电器
C. Integrated circuit ✓
集成电路
D. Transformer ✗
变压器

T6D10. What is the function of component 2 in figure T-1?
图T-1中组件2的功能是什么?

A. Give off light when current flows through it ✗
电流流过时发光
B. Supply electrical energy ✗
提供电能
C. Control the flow of current ✓
控制电流
D. Convert electrical energy into radio waves ✗
将电能转换成无线电波

T6D11. Which of the following is a resonant or tuned circuit?
以下哪一项是谐振电路或调谐电路?

A. An inductor and a capacitor in series or parallel ✓
串联或并联的电感器和电容器
B. A linear voltage regulator ✗
线性电压调节器
C. A resistor circuit used for reducing standing wave ratio ✗
一种用于降低驻波比的电阻电路
D. A circuit designed to provide high-fidelity audio ✗
设计用于提供高保真音频的电路

T7 PRACTICAL CIRCUITS
实用电路

T7A Station equipment: receivers, transceivers, transmitter amplifiers, receive amplifiers, transverters; Basic radio circuit concepts and terminology: sensitivity, selectivity, mixers, oscillators, PTT, modulation
车站设备：接收器、收发器、发射机放大器、接收放大器、转换器；无线电电路的基本概念和术语：灵敏度、选择性、混频器、振荡器、PTT、调制

T7A01. Which term describes the ability of a receiver to detect the presence of a signal?
哪个术语描述了接收器检测信号存在的能力?

A. Linearity ✗
线性
B. Sensitivity ✓
体贴
C. Selectivity ✗
选择性
D. Total Harmonic Distortion ✗
总谐波失真

T7A02. What is a transceiver?
什么是收发器?

A. A device that combines a receiver and transmitter ✓
一种将接收器和发射器结合在一起的设备
B. A device for matching feed line impedance to 50 ohms ✗
一种将馈线阻抗匹配到50欧姆的设备
C. A device for automatically sending and decoding Morse code ✗
一种自动发送和解码莫尔斯电码的设备
D. A device for converting receiver and transmitter frequencies to another band ✗
一种用于将接收机和发射机频率转换为另一频带的设备

T7A03. Which of the following is used to convert a signal from one frequency to another?
以下哪项用于将信号从一个频率转换为另一个频率?

A. Phase splitter ✗
分相器
B. Mixer ✓
搅拌机
C. Inverter ✗
逆变器
D. Amplifier ✗
放大器

T7A04. Which term describes the ability of a receiver to discriminate between multiple signals?
哪个术语描述了接收器区分多个信号的能力?

A. Discrimination ratio ✗
歧视率
B. Sensitivity ✗
体贴
C. Selectivity ✓
选择性
D. Harmonic distortion ✗
谐波失真

T7A05. What is the name of a circuit that generates a signal at a specific frequency?
产生特定频率信号的电路的名称是什么?

A. Reactance modulator ✗
电抗调制器
B. Phase modulator ✗
相位调制器
C. Low-pass filter ✗
低通滤波器
D. Oscillator ✓
振荡器

T7A06. What device converts the RF input and output of a transceiver to another band?
什么设备将收发器的RF输入和输出转换为另一个频段?

A. High-pass filter ✗
高通滤波器
B. Low-pass filter ✗
低通滤波器
C. Transverter ✓
D. Phase converter ✗
相位转换器

T7A07. What is the function of a transceiver’s PTT input?
收发器的PTT输入功能是什么?

A. Input for a key used to send CW ✗
用于发送CW的键的输入
B. Switches transceiver from receive to transmit when grounded ✓
接地时将收发器从接收切换到发送
C. Provides a transmit tuning tone when grounded ✗
接地时提供传输调谐音
D. Input for a preamplifier tuning tone ✗
前置放大器调谐音调的输入

T7A08. Which of the following describes combining speech with an RF carrier signal?
以下哪项描述了将语音与RF载波信号相结合?

A. Impedance matching ✗
阻抗匹配
B. Oscillation ✗
振荡
C. Modulation ✓
调制
D. Low-pass filtering ✗
低通滤波

T7A09. What is the function of the SSB/CW-FM switch on a VHF power amplifier?
甚高频功率放大器上的SSB/CW-FM开关的功能是什么?

A. Change the mode of the transmitted signal ✗
更改传输信号的模式
B. Set the amplifier for proper operation in the selected mode ✓
将放大器设置为在所选模式下正常工作
C. Change the frequency range of the amplifier to operate in the proper segment of the band ✗
更改放大器的频率范围，使其在适当的频带段内工作
D. Reduce the received signal noise ✗
降低接收信号噪声

T7A10. What device increases the transmitted output power from a transceiver?
什么设备可以增加收发器的传输输出功率?

A. A voltage divider ✗
分压器
B. An RF power amplifier ✓
射频功率放大器
C. An impedance network ✗
阻抗网络
D. All these choices are correct ✗
所有这些选择都是正确的

T7A11. Where is an RF preamplifier installed?
射频前置放大器安装在哪里?

A. Between the antenna and receiver ✓
天线和接收器之间
B. At the output of the transmitter power amplifier ✗
在发射机功率放大器的输出端
C. Between the transmitter and the antenna tuner ✗
在发射器和天线调谐器之间
D. At the output of the receiver audio amplifier ✗
在接收器音频放大器的输出端

T7B Symptoms, causes, and cures of common transmitter and receiver problems: overload and overdrive, distortion, interference and consumer electronics, RF feedback
常见发射器和接收器问题的症状、原因和解决方法：过载和超速、失真、干扰和消费电子产品、RF反馈

T7B01. What can you do if you are told your FM handheld or mobile transceiver is over-deviating?
如果你被告知你的调频手持或移动收发器偏离了方向，你该怎么办?

A. Talk louder into the microphone ✗
对着麦克风大声说话
B. Let the transceiver cool off ✗
让收发器冷却
C. Change to a higher power level ✗
更改为更高的功率级别
D. Talk farther away from the microphone ✓
远离麦克风说话

T7B02. What would cause a broadcast AM or FM radio to receive an amateur radio transmission unintentionally?
是什么原因导致广播AM或FM收音机无意中接收到业余无线电传输?

A. The receiver is unable to reject strong signals outside the AM or FM band ✓
接收器无法拒绝AM或FM频带外的强信号
B. The microphone gain of the transmitter is turned up too high ✗
发射器的麦克风增益调得太高
C. The audio amplifier of the transmitter is overloaded ✗
发射器的音频放大器过载
D. The deviation of an FM transmitter is set too low ✗
调频发射机的偏差设置过低

T7B03. Which of the following can cause radio frequency interference?
下列哪一项会造成无线电频率干扰?

A. Fundamental overload ✗
基本过载
B. Harmonics ✗
谐波
C. Spurious emissions ✗
虚假排放
D. All these choices are correct ✓
所有这些选择都是正确的

T7B04. Which of the following could you use to cure distorted audio caused by RF current on the shield of a microphone cable?
您可以使用以下哪项来修复由麦克风电缆屏蔽上的RF电流引起的失真音频?

A. Band-pass filter ✗
带通滤波器
B. Low-pass filter ✗
低通滤波器
C. Preamplifier ✗
前置放大器
D. Ferrite choke ✓
铁氧体扼流圈

T7B05. How can fundamental overload of a non-amateur radio or TV receiver by an amateur signal be reduced or eliminated?
如何减少或消除业余信号对非业余无线电或电视接收机的基本过载?

A. Block the amateur signal with a filter at the antenna input of the affected receiver ✓
在受影响接收器的天线输入端用滤波器阻断业余信号
B. Block the interfering signal with a filter on the amateur transmitter ✗
用业余发射机上的滤波器阻断干扰信号
C. Switch the transmitter from FM to SSB ✗
将发射器从FM切换到SSB
D. Switch the transmitter to a narrow-band mode ✗
将发射机切换到窄带模式

T7B06. Which of the following actions should you take if a neighbor tells you that your station's transmissions are interfering with their radio or TV reception?
如果邻居告诉你电台的传输干扰了他们的广播或电视接收，你应该采取以下哪项措施?

A. Make sure that your station is functioning properly and that it does not cause interference to your own radio or television when it is tuned to the same channel ✓
请确保您的电台工作正常，并且在调到同一频道时不会对您自己的收音机或电视造成干扰
B. Immediately turn off your transmitter and contact the nearest FCC office for assistance ✗
立即关闭发射器，并联系最近的FCC办公室寻求帮助
C. Install a harmonic doubler on the output of your transmitter and tune it until the interference is eliminated ✗
在发射器的输出端安装谐波倍频器，并对其进行调谐，直到干扰消除
D. All these choices are correct ✗
所有这些选择都是正确的

T7B07. Which of the following can reduce overload of a VHF transceiver by a nearby commercial FM station?
以下哪项可以减少附近商业调频台对甚高频收发器的过载?

A. Installing an RF preamplifier ✗
安装RF前置放大器
B. Using double-shielded coaxial cable ✗
使用双屏蔽同轴电缆
C. Installing bypass capacitors on the microphone cable ✗
在麦克风电缆上安装旁路电容器
D. Installing a band-reject filter ✓
安装带阻滤波器

T7B08. What should you do if something in a neighbor's home is causing harmful interference to your amateur station?
如果邻居家里的东西对你的业余电台造成有害干扰，你该怎么办?

A. Work with your neighbor to identify the offending device ✗
与您的邻居一起识别有问题的设备
B. Politely inform your neighbor that FCC rules prohibit the use of devices that cause interference ✗
礼貌地通知邻居FCC规则禁止使用会造成干扰的设备
C. Make sure your station meets the standards of good amateur practice ✗
确保你的电台符合良好业余训练的标准
D. All these choices are correct ✓
所有这些选择都是正确的

T7B09. What should be the first step to resolve non-fiber optic cable TV interference caused by your amateur radio transmission?
解决业余无线电传输引起的非光纤有线电视干扰的第一步应该是什么?

A. Add a low-pass filter to the TV antenna input ✗
为电视天线输入添加低通滤波器
B. Add a high-pass filter to the TV antenna input ✗
为电视天线输入添加高通滤波器
C. Add a preamplifier to the TV antenna input ✗
将前置放大器添加到电视天线输入
D. Be sure all TV feed line coaxial connectors are installed properly ✓
确保所有电视馈线同轴连接器安装正确

T7B10. What might be a problem if you receive a report that your audio signal through an FM repeater is distorted or unintelligible?
如果您收到通过调频中继器发送的音频信号失真或无法理解的报告，可能会出现什么问题?

A. Your transmitter is slightly off frequency ✗
您的发射机频率有点偏离
B. Your batteries are running low ✗
你的电池电量不足
C. You are in a bad location ✗
你的位置不好
D. All these choices are correct ✓
所有这些选择都是正确的

T7B11. What is a symptom of RF feedback in a transmitter or transceiver?
发射器或收发器中的射频反馈症状是什么?

A. Excessive SWR at the antenna connection ✗
天线连接处SWR过大
B. The transmitter will not stay on the desired frequency ✗
发射器将无法保持在所需频率
C. Reports of garbled, distorted, or unintelligible voice transmissions ✓
语音传输混乱、失真或难以理解的报告
D. Frequent blowing of power supply fuses ✗
电源保险丝频繁熔断

T7C Antenna and transmission line measurements and troubleshooting: measuring SWR, effects of high SWR, causes of feed line failures; Basic coaxial cable characteristics; Use of dummy loads when testing
天线和传输线的测量和故障排除：测量SWR、高SWR的影响、馈线故障的原因；同轴电缆的基本特性；测试时使用假负载

T7C01. What is the primary purpose of a dummy load?
虚拟负载的主要用途是什么?

A. To prevent transmitting signals over the air when making tests ✓
在进行测试时防止通过空中传输信号
B. To prevent over-modulation of a transmitter ✗
防止发射机过度调制
C. To improve the efficiency of an antenna ✗
提高天线的效率
D. To improve the signal-to-noise ratio of a receiver ✗
提高接收机的信噪比

T7C02. Which of the following is used to determine if an antenna is resonant at the desired operating frequency?
以下哪项用于确定天线是否在所需的工作频率下谐振?

A. A VTVM ✗
VTVM
B. An antenna analyzer ✓
天线分析仪
C. A Q meter ✗
Q计
D. A frequency counter ✗
频率计数器

T7C03. What does a dummy load consist of?
伪负载由什么组成?

A. A high-gain amplifier and a TR switch ✗
一个高增益放大器和一个TR开关
B. A non-inductive resistor mounted on a heat sink ✓
安装在散热器上的无感电阻器
C. A low-voltage power supply and a DC relay ✗
一个低压电源和一个直流继电器
D. A 50-ohm reactance used to terminate a transmission line ✗
用于终止传输线的50欧姆电抗

T7C04. What reading on an SWR meter indicates a perfect impedance match between the antenna and the feed line?
SWR表上的读数表明天线和馈线之间的阻抗匹配完美?

A. 50:50 ✗
B. Zero ✗
零
C. 1:1 ✓
D. Full Scale ✗
满刻度

T7C05. Why do most solid-state transmitters reduce output power as SWR increases beyond a certain level?
为什么大多数固态发射机在SWR增加超过一定水平时会降低输出功率?

A. To protect the output amplifier transistors ✓
保护输出放大器晶体管
B. To comply with FCC rules on spectral purity ✗
遵守FCC关于光谱纯度的规定
C. Because power supplies cannot supply enough current at high SWR ✗
因为电源无法在高SWR下提供足够的电流
D. To lower the SWR on the transmission line ✗
降低传输线上的SWR

T7C06. What does an SWR reading of 4:1 indicate?
SWR读数4:1表示什么?

A. Loss of -4 dB ✗
损耗-4 dB
B. Good impedance match ✗
阻抗匹配良好
C. Gain of +4 dB ✗
增益+4 dB
D. Impedance mismatch ✓
阻抗失配

T7C07. What happens to power lost in a feed line?
馈线中的电力损失会发生什么?

A. It increases the SWR ✗
它增加了SWR
B. It is radiated as harmonics ✗
它以谐波形式辐射
C. It is converted into heat ✓
它被转化为热量
D. It distorts the signal ✗
它使信号失真

T7C08. Which instrument can be used to determine SWR?
哪种仪器可以用来确定SWR?

A. Voltmeter ✗
电压表
B. Ohmmeter ✗
欧姆计
C. Iambic pentameter ✗
伊姆比克五音表
D. Directional wattmeter ✓
定向瓦特计

T7C09. Which of the following causes failure of coaxial cables?
以下哪项导致同轴电缆故障?

A. Moisture contamination ✓
湿气污染
B. Solder flux contamination ✗
焊剂污染
C. Rapid fluctuation in transmitter output power ✗
变送器输出功率的快速波动
D. Operation at 100% duty cycle for an extended period ✗
在100%工作循环下长时间运行

T7C10. Why should the outer jacket of coaxial cable be resistant to ultraviolet light?
为什么同轴电缆的外护套要耐紫外线?

A. Ultraviolet resistant jackets prevent harmonic radiation ✗
防紫外线护套可防止谐波辐射
B. Ultraviolet light can increase losses in the cable's jacket ✗
紫外线会增加电缆护套的损耗
C. Ultraviolet and RF signals can mix, causing interference ✗
紫外线和射频信号可能混合，造成干扰
D. Ultraviolet light can damage the jacket and allow water to enter the cable ✓
紫外线会损坏护套并使水进入电缆

T7C11. What is a disadvantage of air core coaxial cable when compared to foam or solid dielectric types?
与泡沫或固体电介质类型相比，空心同轴电缆的缺点是什么?

A. It has more loss per foot ✗
每英尺损失更多
B. It cannot be used for VHF or UHF antennas ✗
它不能用于VHF或UHF天线
C. It requires special techniques to prevent moisture in the cable ✓
它需要特殊的技术来防止电缆中的湿气
D. It cannot be used at below freezing temperatures ✗
它不能在低于冰点的温度下使用

T7D Using basic test instruments: voltmeter, ammeter, and ohmmeter; Soldering
使用基本测试仪器：电压表、电流表、欧姆表；焊接

T7D01. Which instrument would you use to measure electric potential?
你会用哪种仪器来测量电势?

A. An ammeter ✗
电流表
B. A voltmeter ✓
电压表
C. A wavemeter ✗
波长计
D. An ohmmeter ✗
欧姆表

T7D02. How is a voltmeter connected to a component to measure applied voltage?
电压表是如何连接到部件上以测量施加的电压的?

A. In series ✗
串联
B. In parallel ✓
并行
C. In quadrature ✗
正交
D. In phase ✗
同相

T7D03. When configured to measure current, how is a multimeter connected to a component?
当配置为测量电流时，万用表是如何连接到部件的?

A. In series ✓
串联
B. In parallel ✗
并行
C. In quadrature ✗
正交
D. In phase ✗
同相

T7D04. Which instrument is used to measure electric current?
哪种仪器用来测量电流?

A. An ohmmeter ✗
欧姆表
B. An electrometer ✗
静电计
C. A voltmeter ✗
电压表
D. An ammeter ✓
电流表

T7D06. Which of the following can damage a multimeter?
下列哪项会损坏万用表?

A. Attempting to measure resistance using the voltage setting ✗
尝试使用电压设置测量电阻
B. Failing to connect one of the probes to ground ✗
未能将其中一个探针接地
C. Attempting to measure voltage when using the resistance setting ✓
使用电阻设置时尝试测量电压
D. Not allowing it to warm up properly ✗
不允许它正常预热

T7D07. Which of the following measurements are made using a multimeter?
以下哪项测量是使用万用表进行的?

A. Signal strength and noise ✗
信号强度和噪声
B. Impedance and reactance ✗
阻抗和电抗
C. Voltage and resistance ✓
电压和电阻
D. All these choices are correct ✗
所有这些选择都是正确的

T7D08. Which of the following types of solder should not be used for radio and electronic applications?
以下哪种类型的焊料不应用于无线电和电子应用?

A. Acid-core solder ✓
酸性芯焊料
B. Lead-tin solder ✗
铅锡焊料
C. Rosin-core solder ✗
松香芯焊料
D. Tin-copper solder ✗
锡铜焊料

T7D09. What is the characteristic appearance of a cold tin-lead solder joint?
冷锡铅焊点的特征外观是什么?

A. Dark black spots ✗
深黑色斑点
B. A bright or shiny surface ✗
明亮或有光泽的表面
C. A rough or lumpy surface ✓
粗糙或凹凸不平的表面
D. Excessive solder ✗
焊料过多

T7D10. What reading indicates that an ohmmeter is connected across a large, discharged capacitor?
什么读数表明欧姆表连接在一个放电的大电容器上?

A. Increasing resistance with time ✓
阻力随时间增加
B. Decreasing resistance with time ✗
电阻随时间减小
C. Steady full-scale reading ✗
稳定满刻度读数
D. Alternating between open and short circuit ✗
开路和短路之间的交流

T7D11. Which of the following precautions should be taken when measuring in-circuit resistance with an ohmmeter?
使用欧姆表测量电路内电阻时，应采取以下哪项预防措施?

A. Ensure that the applied voltages are correct ✗
确保施加的电压正确
B. Ensure that the circuit is not powered ✓
确保电路未通电
C. Ensure that the circuit is grounded ✗
确保电路接地
D. Ensure that the circuit is operating at the correct frequency ✗
确保电路在正确的频率下工作

T8 SIGNALS AND EMISSIONS
信号和排放

T8A Basic characteristics of FM and SSB; Bandwidth of various modulation modes: CW, SSB, FM, fast-scan TV; Choice of emission type: selection of USB vs LSB, use of SSB for weak signal work, use of FM for VHF packet and repeaters
FM和SSB的基本特性；各种调制方式的带宽：CW、SSB、FM、快扫描电视；发射类型的选择：USB与LSB的选择，SSB用于弱信号工作，FM用于VHF数据包和中继器

T8A01. Which of the following is a form of amplitude modulation?
以下哪项是调幅的一种形式?

A. Spread spectrum ✗
扩频
B. Packet radio ✗
分组无线电
C. Single sideband ✓
单边带
D. Phase shift keying (PSK) ✗
相移键控（PSK）

T8A02. What type of modulation is commonly used for VHF packet radio transmissions?
甚高频分组无线电传输通常使用哪种类型的调制?

A. FM or PM ✓
FM或PM
B. SSB ✗
C. AM ✗
上午
D. PSK ✗

T8A03. Which type of voice mode is often used for long-distance (weak signal) contacts on the VHF and UHF bands?
甚高频和超高频频带上的远距离（弱信号）联系人经常使用哪种类型的语音模式?

A. FM ✗
B. DRM ✗
C. SSB ✓
D. PM ✗
下午

T8A04. Which type of modulation is commonly used for VHF and UHF voice repeaters?
甚高频和超高频语音中继器通常使用哪种类型的调制?

A. AM ✗
上午
B. SSB ✗
C. PSK ✗
D. FM or PM ✓
FM或PM

T8A05. Which of the following types of signal has the narrowest bandwidth?
以下哪种类型的信号具有最窄的带宽?

A. FM voice ✗
调频语音
B. SSB voice ✗
SSB语音
C. CW ✓
D. Slow-scan TV ✗
慢速扫描电视

T8A06. Which sideband is normally used for 10 meter HF, VHF, and UHF single-sideband communications?
哪个边带通常用于10米HF、VHF和UHF单边带通信?

A. Upper sideband ✓
上边带
B. Lower sideband ✗
下边带
C. Suppressed sideband ✗
抑制边带
D. Inverted sideband ✗
倒置边带

T8A07. What is a characteristic of single sideband (SSB) compared to FM?
与调频相比，单边带（SSB）的特点是什么?

A. 1 kHz ✗
1千赫
B. 3 kHz ✗
3千赫
C. 6 kHz ✓
6千赫
D. 15 kHz ✗
15千赫

T8A09. What is the approximate bandwidth of a VHF repeater FM voice signal?
甚高频中继器调频语音信号的近似带宽是多少?

A. Less than 500 Hz ✗
小于500 Hz
B. About 150 kHz ✗
约150 kHz
C. Between 10 and 15 kHz ✓
介于10和15 kHz之间
D. Between 50 and 125 kHz ✗
介于50和125 kHz之间

T8A10. What is the approximate bandwidth of AM fast-scan TV transmissions?
AM快速扫描电视传输的大致带宽是多少?

A. More than 10 MHz ✗
超过10 MHz
B. About 6 MHz ✓
约6 MHz
C. About 3 MHz ✗
约3 MHz
D. About 1 MHz ✗
约1 MHz

T8A11. What is the approximate bandwidth required to transmit a CW signal?
发射CW信号所需的大致带宽是多少?

A. 2.4 kHz ✗
2.4千赫
B. 150 Hz ✓
150赫兹
C. 1000 Hz ✗
1000赫兹
D. 15 kHz ✗
15千赫

T8A12. Which of the following is a disadvantage of FM compared with single sideband?
与单边带相比，以下哪一项是调频的缺点?

A. Voice quality is poorer ✗
音质较差
B. Only one signal can be received at a time ✓
一次只能接收一个信号
C. FM signals are harder to tune ✗
调频信号更难调谐
D. All these choices are correct ✗
所有这些选择都是正确的

T8B Amateur satellite operation: Doppler shift, basic orbits, operating protocols, modulation mode selection, transmitter power considerations, telemetry and telecommand, satellite tracking programs, beacons, uplink and downlink mode definitions, spin fading, definition of "LEO", setting uplink power
业余卫星操作：多普勒频移、基本轨道、操作协议、调制模式选择、发射机功率考虑、遥测和远程通信、卫星跟踪程序、信标、上行链路和下行链路模式定义、自旋衰落、"LEO"的定义、设置上行链路功率

T8B01. What telemetry information is typically transmitted by satellite beacons?
卫星信标通常传输哪些遥测信息?

A. The signal strength of received signals ✗
接收信号的信号强度
B. Time of day accurate to plus or minus 1/10 second ✗
精确到±1/10秒的一天中的时间
C. Health and status of the satellite ✓
卫星的健康状况
D. All these choices are correct ✗
所有这些选择都是正确的

T8B02. What is the impact of using excessive effective radiated power on a satellite uplink?
对卫星上行链路使用过多的有效辐射功率会产生什么影响?

A. Possibility of commanding the satellite to an improper mode ✗
命令卫星进入不正确模式的可能性
B. Blocking access by other users ✓
阻止其他用户访问
C. Overloading the satellite batteries ✗
卫星电池过载
D. Possibility of rebooting the satellite control computer ✗
重新启动卫星控制计算机的可能性

T8B03. Which of the following are provided by satellite tracking programs?
以下哪些是由卫星跟踪程序提供的?

A. Maps showing the real-time position of the satellite track over Earth ✗
显示卫星轨道在地球上的实时位置的地图
B. The time, azimuth, and elevation of the start, maximum altitude, and end of a pass ✗
行程开始、最大高度和结束的时间、方位角和高程
C. The apparent frequency of the satellite transmission, including effects of Doppler shift ✗
卫星传输的视在频率，包括多普勒频移的影响
D. All these choices are correct ✓
所有这些选择都是正确的

T8B04. What mode of transmission is commonly used by amateur radio satellites?
业余无线电卫星通常使用什么传输模式?

A. SSB ✗
B. FM ✗
C. CW/data ✗
CW/数据
D. All these choices are correct ✓
所有这些选择都是正确的

T8B05. What is a satellite beacon?
什么是卫星信标?

A. The primary transmit antenna on the satellite ✗
卫星上的主发射天线
B. An indicator light that shows where to point your antenna ✗
指示灯，指示天线指向何处
C. A reflective surface on the satellite ✗
卫星上的反射面
D. A transmission from a satellite that contains status information ✓
包含状态信息的卫星传输

T8B06. Which of the following are inputs to a satellite tracking program?
以下哪项是卫星跟踪程序的输入?

A. The satellite transmitted power ✗
卫星发射功率
B. The Keplerian elements ✓
开普勒元素
C. The last observed time of zero Doppler shift ✗
最后观测到的零多普勒频移时间
D. All these choices are correct ✗
所有这些选择都是正确的

T8B07. What is Doppler shift in reference to satellite communications?
关于卫星通信，多普勒频移是什么?

A. A change in the satellite orbit ✗
卫星轨道的变化
B. A mode where the satellite receives signals on one band and transmits on another ✗
卫星在一个频段接收信号，在另一个频段发送信号的一种模式
C. An observed change in signal frequency caused by relative motion between the satellite and Earth station ✓
观测到的由卫星和地球站之间的相对运动引起的信号频率变化
D. A special digital communications mode for some satellites ✗
一些卫星的一种特殊数字通信模式

T8B08. What is meant by the statement that a satellite is operating in U/V mode?
卫星在U/V模式下运行的说法是什么意思?

A. The satellite uplink is in the 15 meter band and the downlink is in the 10 meter band ✗
卫星上行链路在15米波段，下行链路在10米波段
B. The satellite uplink is in the 70 centimeter band and the downlink is in the 2 meter band ✓
卫星上行链路在70厘米波段，下行链路在2米波段
C. The satellite operates using ultraviolet frequencies ✗
该卫星使用紫外线频率运行
D. The satellite frequencies are usually variable ✗
卫星频率通常是可变的

T8B09. What causes spin fading of satellite signals?
是什么导致卫星信号的自旋衰落?

A. Circular polarized noise interference radiated from the sun ✗
太阳辐射的圆偏振噪声干扰
B. Rotation of the satellite and its antennas ✓
卫星及其天线的旋转
C. Doppler shift of the received signal ✗
接收信号的多普勒频移
D. Interfering signals within the satellite uplink band ✗
卫星上行链路频带内的干扰信号

T8B10. What is a LEO satellite?
什么是LEO卫星?

A. A sun synchronous satellite ✗
太阳同步卫星
B. A highly elliptical orbit satellite ✗
高度椭圆轨道卫星
C. A satellite in low energy operation mode ✗
处于低能量运行模式的卫星
D. A satellite in low earth orbit ✓
近地轨道上的卫星

T8B11. Who may receive telemetry from a space station?
谁可以接收空间站的遥测数据?

A. Anyone ✓
任何人
B. A licensed radio amateur with a transmitter equipped for interrogating the satellite ✗
一个有执照的无线电业余爱好者，带着一个用来询问卫星的发射机
C. A licensed radio amateur who has been certified by the protocol developer ✗
经过协议开发人员认证的有执照的无线电业余爱好者
D. A licensed radio amateur who has registered for an access code from AMSAT ✗
已注册AMSAT接入码的持牌无线电业余爱好者

T8B12. Which of the following is a way to determine whether your satellite uplink power is neither too low nor too high?
以下哪种方法可以确定您的卫星上行链路功率是否既不过低也不过高?

A. Check your signal strength report in the telemetry data ✗
检查遥测数据中的信号强度报告
B. Listen for distortion on your downlink signal ✗
监听下行信号是否失真
C. Your signal strength on the downlink should be about the same as the beacon ✓
下行链路上的信号强度应该与信标大致相同
D. All these choices are correct ✗
所有这些选择都是正确的

T8C Operating activities: radio direction finding, contests, linking over the internet, exchanging grid locators
运营活动：无线电测向、竞赛、互联网链接、交换网格定位器

T8C01. Which of the following methods is used to locate sources of noise interference or jamming?
以下哪种方法用于定位噪声干扰或干扰源?

A. Echolocation ✗
回声定位
B. Doppler radar ✗
多普勒雷达
C. Radio direction finding ✓
无线电测向
D. Phase locking ✗
相位锁定

T8C02. Which of these items would be useful for a hidden transmitter hunt?
这些物品中的哪一个对隐藏的发射机搜寻有用?

A. Calibrated SWR meter ✗
校准SWR表
B. A directional antenna ✓
定向天线
C. A calibrated noise bridge ✗
经过校准的噪声电桥
D. All these choices are correct ✗
所有这些选择都是正确的

T8C03. What operating activity involves contacting as many stations as possible during a specified period?
哪些操作活动涉及在指定时间内联系尽可能多的工作站?

A. Simulated emergency exercises ✗
模拟应急演习
B. Net operations ✗
净运营
C. Public service events ✗
公共服务活动
D. Contesting ✓
竞争

T8C04. Which of the following is good procedure when contacting another station in a contest?
在比赛中联系另一个电台时，以下哪一项是好的程序?

A. Sign only the last two letters of your call if there are many other stations calling ✗
如果有许多其他电台在呼叫，请只在呼叫的最后两个字母上签名
B. Contact the station twice to be sure that you are in his log ✗
联系电台两次，确保你在他的日志中
C. Send only the minimum information needed for proper identification and the contest exchange ✓
只发送正确识别和比赛交流所需的最低信息
D. All these choices are correct ✗
所有这些选择都是正确的

T8C05. What is a grid locator?
什么是栅格定位器?

A. A letter-number designator assigned to a geographic location ✓
指定给地理位置的字母数字指示符
B. A letter-number designator assigned to an azimuth and elevation ✗
指定给方位角和仰角的字母数字指示符
C. An instrument for neutralizing a final amplifier ✗
一种消除末级放大器的仪器
D. An instrument for radio direction finding ✗
无线电测向仪

T8C06. How is over the air access to IRLP nodes accomplished?
如何实现对IRLP节点的空中访问?

A. By obtaining a password that is sent via voice to the node ✗
通过获取通过语音发送到节点的密码
B. By using DTMF signals ✓
通过使用DTMF信号
C. By entering the proper internet password ✗
通过输入正确的互联网密码
D. By using CTCSS tone codes ✗
通过使用CTCSS音调代码

T8C07. What is Voice Over Internet Protocol (VoIP)?
什么是网络语音（VoIP）？

A. A set of rules specifying how to identify your station when linked over the internet to another station ✗
一组规则，指定当通过互联网链接到另一个电台时如何识别您的电台
B. A technique employed to “spot” DX stations via the internet ✗
一种通过互联网“发现”DX电台的技术
C. A technique for measuring the modulation quality of a transmitter using remote sites monitored via the internet ✗
一种使用通过互联网监控的远程站点测量发射机调制质量的技术
D. A method of delivering voice communications over the internet using digital techniques ✓
一种使用数字技术在互联网上传输语音通信的方法

T8C08. What is the Internet Radio Linking Project (IRLP)?
什么是互联网无线电连接项目（IRLP）？

A. A technique to connect amateur radio systems, such as repeaters, via the internet using Voice Over Internet Protocol (VoIP) ✓
一种使用互联网语音协议（VoIP）通过互联网连接业余无线电系统（如中继器）的技术
B. A system for providing access to websites via amateur radio ✗
一种通过业余无线电访问网站的系统
C. A system for informing amateurs in real time of the frequency of active DX stations ✗
一种实时通知业余爱好者活动DX电台频率的系统
D. A technique for measuring signal strength of an amateur transmitter via the internet ✗
一种通过互联网测量业余发射机信号强度的技术

T8C09. Which of the following protocols enables an amateur station to transmit through a repeater without using a radio to initiate the transmission?
以下哪种协议使业余电台能够在不使用无线电启动传输的情况下通过中继器进行传输?

A. IRLP ✗
B. D-STAR ✗
D星
C. DMR ✗
D. EchoLink ✓

T8C10. What is required before using the EchoLink system?
使用EchoLink系统之前需要什么?

A. Complete the required EchoLink training ✗
完成所需的EchoLink培训
B. Purchase a license to use the EchoLink software ✗
购买使用EchoLink软件的许可证
C. Register your call sign and provide proof of license ✓
注册呼号并提供许可证证明
D. All these choices are correct ✗
所有这些选择都是正确的

T8C11. What is an amateur radio station that connects other amateur stations to the internet?
什么是将其他业余电台连接到互联网的业余电台?

A. A gateway ✓
网关
B. A repeater ✗
中继器
C. A digipeater ✗
digipeater
D. A beacon ✗
灯塔

T8D Non-voice and digital communications: image signals and definition of NTSC, CW, packet radio, PSK, APRS, error detection and correction, amateur radio networking, Digital Mobile Radio, WSJT modes, Broadband-Hamnet
非语音和数字通信：NTSC、CW、分组无线电、PSK、APRS的图像信号和定义、错误检测和校正、业余无线电网络、数字移动无线电、WSJT模式、宽带Hamnet

T8D01. Which of the following is a digital communications mode?
以下哪种是数字通信模式?

A. Packet radio ✗
分组无线电
B. IEEE 802.11 ✗
ieee802.11
C. FT8 ✗
D. All these choices are correct ✓
所有这些选择都是正确的

T8D02. What is a “talkgroup” on a DMR repeater?
DMR中继器上的“通话组”是什么?

A. A group of operators sharing common interests ✗
一群有共同利益的经营者
B. A way for groups of users to share a channel at different times without hearing other users on the channel ✓
一种让用户组在不同时间共享频道而不会听到频道上其他用户的声音的方式
C. A protocol that increases the signal-to-noise ratio when multiple repeaters are linked together ✗
当多个中继器连接在一起时，一种提高信噪比的协议
D. A net that meets at a specified time ✗
在指定时间集合的网

T8D03. What kind of data can be transmitted by APRS?
APRS可以传输什么样的数据?

A. GPS position data ✗
GPS位置数据
B. Text messages ✗
短信
C. Weather data ✗
天气数据
D. All these choices are correct ✓
所有这些选择都是正确的

T8D04. What type of transmission is indicated by the term "NTSC?"
术语“NTSC”表示什么类型的传输

A. A Normal Transmission mode in Static Circuit ✗
静态电路中的一种正常传输方式
B. A special mode for satellite uplink ✗
卫星上行链路的一种特殊模式
C. An analog fast-scan color TV signal ✓
模拟快速扫描彩色电视信号
D. A frame compression scheme for TV signals ✗
一种电视信号的帧压缩方案

T8D05. Which of the following is an application of APRS?
以下哪项是APRS的应用?

A. Providing real-time tactical digital communications in conjunction with a map showing the locations of stations ✓
与显示台站位置的地图一起提供实时战术数字通信
B. Showing automatically the number of packets transmitted via PACTOR during a specific time interval ✗
自动显示特定时间间隔内通过PACTOR传输的数据包数量
C. Providing voice over internet connection between repeaters ✗
在中继器之间提供互联网语音连接
D. Providing information on the number of stations signed into a repeater ✗
提供与中继器签约的站点数量有关的信息

T8D06. What does the abbreviation "PSK" mean?
缩写“PSK”是什么意思?

A. Pulse Shift Keying ✗
脉冲移位键控
B. Phase Shift Keying ✓
相移键控
C. Packet Short Keying ✗
数据包短键控
D. Phased Slide Keying ✗
分阶段滑动键控

T8D07. Which of the following describes DMR?
以下哪项描述DMR?

A. A technique for time-multiplexing two digital voice signals on a single 12.5 kHz repeater channel ✓
一种在单个12.5kHz中继器信道上对两个数字语音信号进行时间复用的技术
B. An automatic position tracking mode for FM mobiles communicating through repeaters ✗
一种用于调频手机通过中继器通信的自动位置跟踪模式
C. An automatic computer logging technique for hands-off logging when communicating while operating a vehicle ✗
一种计算机自动记录技术，用于在操作车辆时进行通信时进行手动记录
D. A digital technique for transmitting on two repeater inputs simultaneously for automatic error correction ✗
一种同时在两个中继器输入端进行传输的数字技术，用于自动纠错

T8D08. Which of the following is included in packet radio transmissions?
以下哪项包含在分组无线电传输中?

A. A check sum that permits error detection ✗
允许错误检测的校验和
B. A header that contains the call sign of the station to which the information is being sent ✗
一种标头，包含信息发送到的电台的呼号
C. Automatic repeat request in case of error ✗
出现错误时自动重复请求
D. All these choices are correct ✓
所有这些选择都是正确的

T8D09. What is CW?
什么是CW?

A. A type of electromagnetic propagation ✗
一种电磁传播
B. A digital mode used primarily on 2 meter FM ✗
主要用于2米调频的数字模式
C. A technique for coil winding ✗
一种线圈缠绕技术
D. Another name for a Morse code transmission ✓
莫尔斯电码传输的另一个名称

T8D10. Which of the following operating activities is supported by digital mode software in the WSJT-X software suite?
WSJT-X软件套件中的数字模式软件支持以下哪项操作活动?

A. Earth-Moon-Earth ✗
地球月球地球
B. Weak signal propagation beacons ✗
弱信号传播信标
C. Meteor scatter ✗
流星散射
D. All these choices are correct ✓
所有这些选择都是正确的

T8D11. What is an ARQ transmission system?
什么是ARQ传输系统?

A. A special transmission format limited to video signals ✗
一种仅限于视频信号的特殊传输格式
B. A system used to encrypt command signals to an amateur radio satellite ✗
一种用于加密发送给业余无线电卫星的命令信号的系统
C. An error correction method in which the receiving station detects errors and sends a request for retransmission ✓
一种纠错方法，其中接收站检测错误并发送重发请求
D. A method of compressing data using autonomous reiterative Q codes prior to final encoding ✗
一种在最终编码前使用自主重复Q码压缩数据的方法

T8D12. Which of the following best describes an amateur radio mesh network?
以下哪项最能描述业余无线电网状网络?

A. An amateur-radio based data network using commercial Wi-Fi equipment with modified firmware ✓
一种基于业余无线电的数据网络，使用经过修改的固件的商业Wi-Fi设备
B. A wide-bandwidth digital voice mode employing DMR protocols ✗
一种采用DMR协议的宽带数字语音模式
C. A satellite communications network using modified commercial satellite TV hardware ✗
使用改良商业卫星电视硬件的卫星通信网络
D. An internet linking protocol used to network repeaters ✗
一种用于网络中继器的互联网连接协议

T8D13. What is FT8?
什么是FT8?

A. A wideband FM voice mode ✗
宽带调频语音模式
B. A digital mode capable of low signal-to-noise operation ✓
一种能够进行低信噪比操作的数字模式
C. An eight channel multiplex mode for FM repeaters ✗
一种用于调频中继器的八通道多路复用模式
D. A digital slow-scan TV mode with forward error correction and automatic color compensation ✗
具有前向纠错和自动色彩补偿功能的数字慢扫描电视模式

T9 ANTENNAS AND FEED LINES
天线和馈线

T9A Antennas: vertical and horizontal polarization, concept of antenna gain, definition and types of beam antennas, antenna loading, common portable and mobile antennas, relationships between resonant length and frequency, dipole pattern
天线：垂直和水平极化，天线增益的概念，波束天线的定义和类型，天线负载，常见的便携式和移动天线，谐振长度和频率之间的关系，偶极子方向图

T9A01. What is a beam antenna?
什么是波束天线?

A. An antenna built from aluminum I-beams ✗
铝制工字梁天线
B. An omnidirectional antenna invented by Clarence Beam ✗
Clarence Beam发明的全向天线
C. An antenna that concentrates signals in one direction ✓
将信号集中在一个方向的天线
D. An antenna that reverses the phase of received signals ✗
一种使接收信号反相的天线

T9A02. Which of the following describes a type of antenna loading?
以下哪项描述了一种类型的天线负载?

A. Electrically lengthening by inserting inductors in radiating elements ✓
通过在辐射元件中插入电感器实现电加长
B. Inserting a resistor in the radiating portion of the antenna to make it resonant ✗
在天线的辐射部分插入电阻器使其谐振
C. Installing a spring in the base of a mobile vertical antenna to make it more flexible ✗
在移动垂直天线的底座上安装弹簧，使其更灵活
D. Strengthening the radiating elements of a beam antenna to better resist wind damage ✗
加强波束天线的辐射元件以更好地抵御风的破坏

T9A03. Which of the following describes a simple dipole oriented parallel to Earth's surface?
以下哪一项描述了平行于地球表面的简单偶极子?

A. A ground-wave antenna ✗
地波天线
B. A horizontally polarized antenna ✓
水平极化天线
C. A travelling-wave antenna ✗
行波天线
D. A vertically polarized antenna ✗
垂直极化天线

T9A04. What is a disadvantage of the short, flexible antenna supplied with most handheld radio transceivers, compared to a full-sized quarter-wave antenna?
与全尺寸四分之一波长天线相比，大多数手持无线电收发器提供的短而灵活的天线有什么缺点?

A. It has low efficiency ✓
它的效率很低
B. It transmits only circularly polarized signals ✗
它只传输圆极化信号
C. It is mechanically fragile ✗
它在机械上很脆弱
D. All these choices are correct ✗
所有这些选择都是正确的

T9A05. Which of the following increases the resonant frequency of a dipole antenna?
以下哪项可以提高偶极天线的谐振频率?

A. Lengthening it ✗
加长
B. Inserting coils in series with radiating wires ✗
将线圈与辐射线串联插入
C. Shortening it ✓
缩短
D. Adding capacitive loading to the ends of the radiating wires ✗
将电容负载添加到辐射线的末端

T9A06. Which of the following types of antenna offers the greatest gain?
以下哪种类型的天线提供的增益最大?

A. 5/8 wave vertical ✗
垂直5/8波
B. Isotropic ✗
各向同性
C. J pole ✗
J极
D. Yagi ✓
八木

T9A07. What is a disadvantage of using a handheld VHF transceiver with a flexible antenna inside a vehicle?
在车内使用带柔性天线的手持式甚高频收发器的缺点是什么?

A. Signal strength is reduced due to the shielding effect of the vehicle ✓
由于车辆的屏蔽作用，信号强度降低
B. The bandwidth of the antenna will decrease, increasing SWR ✗
天线的带宽将减小，SWR增加
C. The SWR might decrease, decreasing the signal strength ✗
SWR可能会降低，从而降低信号强度
D. All these choices are correct ✗
所有这些选择都是正确的

T9A08. What is the approximate length, in inches, of a quarter-wavelength vertical antenna for 146 MHz?
146兆赫四分之一波长垂直天线的近似长度（英寸）是多少?

A. 112 ✗
112
B. 50 ✗
50
C. 19 ✓
19
D. 12 ✗
12

T9A09. What is the approximate length, in inches, of a half-wavelength 6 meter dipole antenna?
半波长6米偶极天线的近似长度（英寸）是多少?

A. 6 ✗
6
B. 50 ✗
50
C. 112 ✓
112
D. 236 ✗
236

T9A10. In which direction does a half-wave dipole antenna radiate the strongest signal?
半波偶极天线向哪个方向辐射最强的信号?

A. Equally in all directions ✗
在所有方向上均相同
B. Off the ends of the antenna ✗
离开天线末端
C. In the direction of the feed line ✗
沿馈线方向
D. Broadside to the antenna ✓
天线外侧

T9A11. What is antenna gain?
什么是天线增益?

A. The additional power that is added to the transmitter power ✗
添加到发射机功率的附加功率
B. The additional power that is required in the antenna when transmitting on a higher frequency ✗
在较高频率上发射时天线所需的额外功率
C. The increase in signal strength in a specified direction compared to a reference antenna ✓
与参考天线相比，指定方向上的信号强度增加
D. The increase in impedance on receive or transmit compared to a reference antenna ✗
与参考天线相比，接收或发射阻抗的增加

T9A12. What is an advantage of a 5/8 wavelength whip antenna for VHF or UHF mobile service?
适用于VHF或UHF移动服务的5/8波长鞭状天线的优势是什么?

A. It has more gain than a 1/4-wavelength antenna ✓
它的增益比1/4波长的天线大
B. It radiates at a very high angle ✗
它以很高的角度辐射
C. It eliminates distortion caused by reflected signals ✗
它消除了反射信号引起的失真
D. It has 10 times the power gain of a 1/4 wavelength whip ✗
它的功率增益是1/4波长鞭状物的10倍

T9B Feed lines: types, attenuation vs frequency, selecting; SWR concepts; Antenna tuners (couplers); RF Connectors: selecting, weather protection
馈线：类型、衰减与频率、选择；SWR概念；天线调谐器（耦合器）；RF连接器：选择，防风雨

T9B01. What is a benefit of low SWR?
SWR低的好处是什么?

A. Reduced television interference ✗
减少电视干扰
B. Reduced signal loss ✓
降低了信号损耗
C. Less antenna wear ✗
减少天线磨损
D. All these choices are correct ✗
所有这些选择都是正确的

T9B02. What is the most common impedance of coaxial cables used in amateur radio?
业余无线电中使用的同轴电缆最常见的阻抗是多少?

A. 8 ohms ✗
8欧姆
B. 50 ohms ✓
50欧姆
C. 600 ohms ✗
600欧姆
D. 12 ohms ✗
12欧姆

T9B03. Why is coaxial cable the most common feed line for amateur radio antenna systems?
为什么同轴电缆是业余无线电天线系统中最常见的馈线?

A. It is easy to use and requires few special installation considerations ✓
它易于使用，几乎不需要特殊的安装注意事项
B. It has less loss than any other type of feed line ✗
它的损耗比任何其他类型的馈线都小
C. It can handle more power than any other type of feed line ✗
它可以处理比任何其他类型的馈线更多的功率
D. It is less expensive than any other type of feed line ✗
它比任何其他类型的馈线都便宜

T9B04. What is the major function of an antenna tuner (antenna coupler)?
天线调谐器（天线耦合器）的主要功能是什么?

A. It matches the antenna system impedance to the transceiver's output impedance ✓
它将天线系统阻抗与收发器的输出阻抗相匹配
B. It helps a receiver automatically tune in weak stations ✗
它有助于接收器在弱电台中自动调谐
C. It allows an antenna to be used on both transmit and receive ✗
它允许天线同时用于发射和接收
D. It automatically selects the proper antenna for the frequency band being used ✗
它会自动为所使用的频带选择合适的天线

T9B05. What happens as the frequency of a signal in coaxial cable is increased?
当同轴电缆中信号的频率增加时会发生什么?

A. The characteristic impedance decreases ✗
特性阻抗降低
B. The loss decreases ✗
损失减少
C. The characteristic impedance increases ✗
特性阻抗增加
D. The loss increases ✓
损失增加

T9B06. Which of the following RF connector types is most suitable for frequencies above 400 MHz?
以下哪种射频连接器最适合400 MHz以上的频率?

A. UHF (PL-259/SO-239) ✗
UHF（PL-259/SO-239）
B. Type N ✓
N型
C. RS-213 ✗
D. DB-25 ✗

T9B07. Which of the following is true of PL-259 type coax connectors?
以下哪项适用于PL-259型同轴电缆连接器?

A. They are preferred for microwave operation ✗
它们是微波操作的首选
B. They are watertight ✗
它们是防水的
C. They are commonly used at HF and VHF frequencies ✓
它们通常用于HF和VHF频率
D. They are a bayonet-type connector ✗
它们是卡口式连接器

T9B08. Which of the following is a source of loss in coaxial feed line?
以下哪项是同轴馈线的损耗源?

A. Water intrusion into coaxial connectors ✗
同轴连接器进水
B. High SWR ✗
SWR高
C. Multiple connectors in the line ✗
线路中有多个连接器
D. All these choices are correct ✓
所有这些选择都是正确的

T9B09. What can cause erratic changes in SWR?
什么会导致SWR的不稳定变化?

A. Local thunderstorm ✗
局部雷雨
B. Loose connection in the antenna or feed line ✓
天线或馈线连接松动
C. Over-modulation ✗
过调制
D. Overload from a strong local station ✗
强大的本地站过载

T9B10. What is the electrical difference between RG-58 and RG-213 coaxial cable?
RG-58和RG-213同轴电缆的电气区别是什么?

A. There is no significant difference between the two types ✗
这两种类型之间没有显著差异
B. RG-58 cable has two shields ✗
RG-58电缆有两个屏蔽
C. RG-213 cable has less loss at a given frequency ✓
RG-213电缆在给定频率下损耗较小
D. RG-58 cable can handle higher power levels ✗
RG-58电缆可以处理更高的功率水平

T9B11. Which of the following types of feed line has the lowest loss at VHF and UHF?
以下哪种类型的馈线在VHF和UHF下损耗最低?

A. 50-ohm flexible coax ✗
50欧姆柔性同轴电缆
B. Multi-conductor unbalanced cable ✗
多导体不平衡电缆
C. Air-insulated hardline ✓
空气绝缘硬质合金
D. 75-ohm flexible coax ✗
75欧姆柔性同轴电缆

T9B12. What is standing wave ratio (SWR)?
驻波比是多少?

A. A measure of how well a load is matched to a transmission line ✓
衡量负载与输电线路匹配程度的指标
B. The ratio of amplifier power output to input ✗
放大器功率输出与输入的比率
C. The transmitter efficiency ratio ✗
变送器效率比
D. An indication of the quality of your station’s ground connection ✗
指示电台接地质量

T0 SAFETY
安全

T0A Power circuits and hazards: hazardous voltages, fuses and circuit breakers, grounding, electrical code compliance; Lightning protection; Battery safety
电源电路和危险：危险电压、保险丝和断路器、接地、电气规范合规性；防雷；蓄电池安全

T0A01. Which of the following is a safety hazard of a 12-volt storage battery?
以下哪项是12伏蓄电池的安全隐患?

A. Touching both terminals with the hands can cause electrical shock ✗
用手触摸两个端子可能会导致触电
B. Shorting the terminals can cause burns, fire, or an explosion ✓
端子短路可能导致烧伤、火灾或爆炸
C. RF emissions from a nearby transmitter can cause the electrolyte to emit poison gas ✗
附近发射器的射频发射会导致电解液释放有毒气体
D. All these choices are correct ✗
所有这些选择都是正确的

T0A02. What health hazard is presented by electrical current flowing through the body?
流经身体的电流会对健康造成什么危害?

A. It may cause injury by heating tissue ✗
它可能会因加热组织而造成伤害
B. It may disrupt the electrical functions of cells ✗
它可能会破坏细胞的电功能
C. It may cause involuntary muscle contractions ✗
它可能导致不自主的肌肉收缩
D. All these choices are correct ✓
所有这些选择都是正确的

T0A03. In the United States, what circuit does black wire insulation indicate in a three-wire 120 V cable?
在美国，三线制120V电缆的黑线绝缘表示什么电路?

A. Neutral ✗
中立的
B. Hot ✓
热的
C. Equipment ground ✗
设备接地
D. Black insulation is never used ✗
从不使用黑色绝缘

T0A04. What is the purpose of a fuse in an electrical circuit?
电路中保险丝的用途是什么?

A. To prevent power supply ripple from damaging a component ✗
防止电源纹波损坏组件
B. To remove power in case of overload ✓
过载时断电
C. To limit current to prevent shocks ✗
限制电流以防止电击
D. All these choices are correct ✗
所有这些选择都是正确的

T0A05. Why should a 5-ampere fuse never be replaced with a 20-ampere fuse?
为什么5安培的保险丝永远不能用20安培的保险丝代替?

A. The larger fuse would be likely to blow because it is rated for higher current ✗
较大的保险丝可能会熔断，因为它的额定电流更高
B. The power supply ripple would greatly increase ✗
电源纹波将大大增加
C. Excessive current could cause a fire ✓
电流过大可能引发火灾
D. All these choices are correct ✗
所有这些选择都是正确的

T0A06. What is a good way to guard against electrical shock at your station?
在你的车站防止触电的好方法是什么?

A. Use three-wire cords and plugs for all AC powered equipment ✗
所有交流供电设备使用三根电线和插头
B. Connect all AC powered station equipment to a common safety ground ✗
将所有交流电站设备连接到公共安全接地
C. Install mechanical interlocks in high-voltage circuits ✗
在高压电路中安装机械联锁装置
D. All these choices are correct ✓
所有这些选择都是正确的

T0A07. Where should a lightning arrester be installed in a coaxial feed line?
避雷器应安装在同轴馈线的何处?

A. At the output connector of a transceiver ✗
在收发器的输出连接器处
B. At the antenna feed point ✗
在天线馈电点
C. At the ac power service panel ✗
在交流电源服务面板上
D. On a grounded panel near where feed lines enter the building ✓
在馈线进入建筑物附近的接地面板上

T0A08. Where should a fuse or circuit breaker be installed in a 120V AC power circuit?
120V交流电源电路中应在何处安装保险丝或断路器?

A. In series with the hot conductor only ✓
仅与热导体串联
B. In series with the hot and neutral conductors ✗
与火线和中性线串联
C. In parallel with the hot conductor only ✗
仅与热导体并联
D. In parallel with the hot and neutral conductors ✗
与火线和中性线平行

T0A09. What should be done to all external ground rods or earth connections?
应如何处理所有外部接地棒或接地连接?

A. Waterproof them with silicone caulk or electrical tape ✗
用硅胶填缝料或电工胶带防水
B. Keep them as far apart as possible ✗
让它们尽可能远离
C. Bond them together with heavy wire or conductive strap ✓
用粗线或导电带将它们粘合在一起
D. Tune them for resonance on the lowest frequency of operation ✗
在最低操作频率下对其进行调谐以获得谐振

T0A10. What hazard is caused by charging or discharging a battery too quickly?
电池充电或放电过快会造成什么危害?

A. Circulating currents in the dc filter ✓
直流滤波器中的循环电流
B. Leakage flux in the power transformer ✗
电力变压器中的漏磁通
C. Voltage transients from kickback diodes ✗
反冲二极管产生的电压瞬变
D. Charge stored in filter capacitors ✗
存储在滤波电容器中的电荷

T0A12. Which of the following precautions should be taken when measuring high voltages with a voltmeter?
使用电压表测量高压时，应采取以下哪项预防措施?

A. Ensure that the voltmeter has very low impedance ✗
确保电压表的阻抗非常低
B. Ensure that the voltmeter and leads are rated for use at the voltages to be measured ✓
确保电压表和引线的额定值适用于待测量的电压
C. Ensure that the circuit is grounded through the voltmeter ✗
确保电路通过电压表接地
D. Ensure that the voltmeter is set to the correct frequency ✗
确保电压表设置为正确的频率

T0B Antenna safety: tower safety and grounding, installing antennas, antenna supports
天线安全：塔架安全和接地、安装天线、天线支架

T0B01. Which of the following is good practice when installing ground wires on a tower for lightning protection?
在塔架上安装避雷地线时，以下哪项是良好的做法?

A. Put a drip loop in the ground connection to prevent water damage to the ground system ✗
在接地连接中放置滴水环，以防止水损坏接地系统
B. Make sure all ground wire bends are right angles ✗
确保所有地线弯曲都是直角
C. Ensure that connections are short and direct ✓
确保连接短且直接
D. All these choices are correct ✗
所有这些选择都是正确的

T0B02. What is required when climbing an antenna tower?
攀登天线塔时需要什么?

A. Have sufficient training on safe tower climbing techniques ✗
对安全爬塔技术进行充分培训
B. Use appropriate tie-off to the tower at all times ✗
在任何时候都要使用适当的系紧装置
C. Always wear an approved climbing harness ✗
始终佩戴经批准的攀爬安全带
D. All these choices are correct ✓
所有这些选择都是正确的

T0B03. Under what circumstances is it safe to climb a tower without a helper or observer?
在什么情况下，在没有助手或观察员的情况下攀登塔是安全的?

A. When no electrical work is being performed ✗
当没有进行电气工作时
B. When no mechanical work is being performed ✗
当没有进行机械作业时
C. When the work being done is not more than 20 feet above the ground ✗
当正在进行的工作离地面不超过20英尺时
D. Never ✓
从不

T0B04. Which of the following is an important safety precaution to observe when putting up an antenna tower?
架设天线塔时，以下哪项是重要的安全预防措施?

A. Wear a ground strap connected to your wrist at all times ✗
始终佩戴与手腕相连的接地带
B. Insulate the base of the tower to avoid lightning strikes ✗
对塔基进行绝缘以避免雷击
C. Look for and stay clear of any overhead electrical wires ✓
寻找并远离任何架空电线
D. All these choices are correct ✗
所有这些选择都是正确的

T0B05. What is the purpose of a safety wire through a turnbuckle used to tension guy lines?
穿过用于拉紧拉线的螺丝扣的安全线的用途是什么?

A. Secure the guy line if the turnbuckle breaks ✗
如果螺丝扣断裂，固定拉线
B. Prevent loosening of the turnbuckle from vibration ✓
防止螺丝扣因振动而松动
C. Provide a ground path for lightning strikes ✗
为雷击提供接地路径
D. Provide an ability to measure for proper tensioning ✗
提供测量适当张紧的能力

T0B06. What is the minimum safe distance from a power line to allow when installing an antenna?
安装天线时，与电源线的最小安全距离是多少?

A. Add the height of the antenna to the height of the power line and multiply by a factor of 1.5 ✗
将天线的高度与电源线的高度相加，然后乘以1.5
B. The height of the power line above ground ✗
电源线离地高度
C. 1/2 wavelength at the operating frequency ✗
工作频率下的1/2波长
D. Enough so that if the antenna falls, no part of it can come closer than 10 feet to the power wires ✓
足够了，如果天线掉下来，它的任何部分都离电源线不到10英尺

T0B07. Which of the following is an important safety rule to remember when using a crank-up tower?
使用曲柄式塔架时，以下哪项是需要记住的重要安全规则?

A. This type of tower must never be painted ✗
这种类型的塔决不能涂漆
B. This type of tower must never be grounded ✗
此类塔架不得接地
C. This type of tower must not be climbed unless it is retracted, or mechanical safety locking devices have been installed ✓
除非收回或安装了机械安全锁定装置，否则不得攀爬此类塔架
D. All these choices are correct ✗
所有这些选择都是正确的

T0B08. Which is a proper grounding method for a tower?
哪种接地方法适合塔架?

A. A single four-foot ground rod, driven into the ground no more than 12 inches from the base ✗
一根四英尺长的接地棒，深入地面，距离底座不超过12英寸
B. A ferrite-core RF choke connected between the tower and ground ✗
连接在塔架和地面之间的铁氧体磁芯RF扼流圈
C. A connection between the tower base and a cold water pipe ✗
塔基和冷水管之间的连接
D. Separate eight-foot ground rods for each tower leg, bonded to the tower and each other ✓
每个塔腿单独的八英尺接地棒，连接到塔和彼此

T0B09. Why should you avoid attaching an antenna to a utility pole?
为什么要避免将天线连接到电线杆上?

A. The antenna will not work properly because of induced voltages ✗
由于感应电压，天线将无法正常工作
B. The 60 Hz radiations from the feed line may increase the SWR ✗
来自馈线的60 Hz辐射可能会增加SWR
C. The antenna could contact high-voltage power lines ✓
天线可能接触高压电线
D. All these choices are correct ✗
所有这些选择都是正确的

T0B10. Which of the following is true when installing grounding conductors used for lightning protection?
在安装用于防雷的接地导体时，以下哪一项是正确的?

A. Use only non-insulated wire ✗
仅使用非绝缘电线
B. Wires must be carefully routed with precise right-angle bends ✗
电线必须小心布线，并采用精确的直角弯头
C. Sharp bends must be avoided ✓
必须避免急转弯
D. Common grounds must be avoided ✗
必须避免共用场地

T0B11. Which of the following establishes grounding requirements for an amateur radio tower or antenna?
以下哪项规定了业余无线电发射塔或天线的接地要求?

A. FCC Part 97 rules ✗
FCC第97部分规则
B. Local electrical codes ✓
当地电气规范
C. FAA tower lighting regulations ✗
FAA塔台照明规定
D. UL recommended practices ✗
UL推荐做法

T0C RF hazards: radiation exposure, proximity to antennas, recognized safe power levels, radiation types, duty cycle
射频危害：辐射暴露、天线附近、公认的安全功率水平、辐射类型、工作周期

T0C01. What type of radiation are radio signals?
无线电信号是什么类型的辐射?

A. Gamma radiation ✗
伽马辐射
B. Ionizing radiation ✗
电离辐射
C. Alpha radiation ✗
阿尔法辐射
D. Non-ionizing radiation ✓
非电离辐射

T0C02. At which of the following frequencies does maximum permissible exposure have the lowest value?
在以下哪个频率下，最大允许暴露量的值最低?

A. 3.5 MHz ✗
3.5兆赫
B. 50 MHz ✓
50兆赫
C. 440 MHz ✗
440兆赫
D. 1296 MHz ✗
1296兆赫

T0C03. How does the allowable power density for RF safety change if duty cycle changes from 100 percent to 50 percent?
如果占空比从100%变为50%，射频安全的允许功率密度如何变化?

A. It increases by a factor of 3 ✗
它增加了3倍
B. It decreases by 50 percent ✗
它减少了50%
C. It increases by a factor of 2 ✓
它增加了2倍
D. There is no adjustment allowed for lower duty cycle ✗
不允许对较低的占空比进行调整

T0C04. What factors affect the RF exposure of people near an amateur station antenna?
哪些因素会影响业余电台天线附近人员的射频暴露?

A. Frequency and power level of the RF field ✗
射频场的频率和功率电平
B. Distance from the antenna to a person ✗
天线到人的距离
C. Radiation pattern of the antenna ✗
天线的辐射方向图
D. All these choices are correct ✓
所有这些选择都是正确的

T0C05. Why do exposure limits vary with frequency?
为什么暴露限值随频率变化?

A. Lower frequency RF fields have more energy than higher frequency fields ✗
较低频率的RF场比较高频率的场具有更多的能量
B. Lower frequency RF fields do not penetrate the human body ✗
低频射频场不会穿透人体
C. Higher frequency RF fields are transient in nature ✗
高频射频场本质上是瞬态的
D. The human body absorbs more RF energy at some frequencies than at others ✓
人体在某些频率下比在其他频率下吸收更多的射频能量

T0C06. Which of the following is an acceptable method to determine whether your station complies with FCC RF exposure regulations?
以下哪项是确定您的电台是否符合FCC射频暴露规定的可接受方法?

A. By calculation based on FCC OET Bulletin 65 ✗
根据FCC OET公告65进行计算
B. By calculation based on computer modeling ✗
通过基于计算机建模的计算
C. By measurement of field strength using calibrated equipment ✗
通过使用校准设备测量场强
D. All these choices are correct ✓
所有这些选择都是正确的

T0C07. What hazard is created by touching an antenna during a transmission?
在传输过程中触摸天线会产生什么危险?

A. Electrocution ✗
触电
B. RF burn to skin ✓
射频灼伤皮肤
C. Radiation poisoning ✗
辐射中毒
D. All these choices are correct ✗
所有这些选择都是正确的

T0C08. Which of the following actions can reduce exposure to RF radiation?
以下哪项措施可以减少射频辐射的暴露?

A. Relocate antennas ✓
重新定位天线
B. Relocate the transmitter ✗
重新定位变送器
C. Increase the duty cycle ✗
增加工作循环
D. All these choices are correct ✗
所有这些选择都是正确的

T0C09. How can you make sure your station stays in compliance with RF safety regulations?
如何确保您的电台符合射频安全法规?

A. By informing the FCC of any changes made in your station ✗
通知FCC您电台的任何更改
B. By re-evaluating the station whenever an item in the transmitter or antenna system is changed ✓
每当发射器或天线系统中的项目发生变化时，通过重新评估电台
C. By making sure your antennas have low SWR ✗
通过确保天线的SWR较低
D. All these choices are correct ✗
所有这些选择都是正确的

T0C10. Why is duty cycle one of the factors used to determine safe RF radiation exposure levels?
为什么占空比是确定安全射频辐射暴露水平的因素之一?

A. It affects the average exposure to radiation ✓
它影响辐射的平均暴露量
B. It affects the peak exposure to radiation ✗
它会影响辐射峰值
C. It takes into account the antenna feed line loss ✗
它考虑了天线馈线损耗
D. It takes into account the thermal effects of the final amplifier ✗
它考虑了最终放大器的热效应

T0C11. What is the definition of duty cycle during the averaging time for RF exposure?
在射频曝光的平均时间内，占空比的定义是什么?

A. The difference between the lowest power output and the highest power output of a transmitter ✗
发射机的最低功率输出和最高功率输出之间的差值
B. The difference between the PEP and average power output of a transmitter ✗
发射机的PEP和平均功率输出之间的差异
C. The percentage of time that a transmitter is transmitting ✓
发射器发射的时间百分比
D. The percentage of time that a transmitter is not transmitting ✗
发射器未发射的时间百分比

T0C12. How does RF radiation differ from ionizing radiation (radioactivity)?
射频辐射与电离辐射（放射性）有何不同?

A. RF radiation does not have sufficient energy to cause chemical changes in cells and damage DNA ✓
射频辐射没有足够的能量来引起细胞的化学变化和损伤DNA
B. RF radiation can only be detected with an RF dosimeter ✗
射频辐射只能用射频剂量计检测
C. RF radiation is limited in range to a few feet ✗
射频辐射范围限制在几英尺以内
D. RF radiation is perfectly safe ✗
射频辐射是完全安全的

T0C13. Who is responsible for ensuring that no person is exposed to RF energy above the FCC exposure limits?
谁负责确保没有人暴露在超过FCC暴露限值的射频能量下?

A. The FCC ✗
FCC
B. The station licensee ✓
电台执照
C. Anyone who is near an antenna ✗
任何靠近天线的人
D. The local zoning board ✗
当地分区委员会