

Balun - matches ^(is feed) coax to antenna feed line (4)

Yagi - type of beam line
Parallel parasitic element

has a director & driver element feeds
 $\frac{1}{2}$ wave length

Sandy - read ans. to one of question

" $\frac{1}{2}$ wave linear driven elements
with parasitically parallel elements"
linear

Balanced antenna - same as symmetrical antenna about
the feed point - not at ground point -
coax connect 2 anten - balanced & symmetrical Sandy

Sandy - "just got tests last night just reviewed"

? How do you minimize radio freq losses
- mount on point close to ground - Sandy said mount

FM - reactance modulator -

? If react. mod. fails -
you'll have unmodulated carrier (waves) Sandy

...
this - let me give them to you again!!

? Sandy: what freq. are attenuated by a low pass filter? - "will not let anything above cut of freq pass"

(5)

? ~~low~~ Sandy: what circuit attenuates electrical energy below a certain frequency? - Band Pass Will attenuate above & below

? ~~the~~ Sandy - there is a couple

Yagi is 2 or more tubes physically arranged parallel to each other

VHF is direct wave & uhf or ground wave
HF is thru sky wave

F1 & F2 2 distinct subwaves

Charles - "Sandy, keep all three tests there & make note on anythg d miss" - statement by Charles

Control Operator funct - control point
3rd party - unlicensed person operat - con
how much power - minimum FCC

Signal report -
5 perfect
7 moderately strong

Using repeater - FCC says - pause briefly between transmission

1st ^{response} comm from disaster - tactical ©
? Who may declare state of comm. ~~disaster~~
emergencies?

FCC when disaster disrupts communication

? temporary KT - If someone has novice license, passed their Tech, CSSE, may operate tech priv, if they sign temporary KT after call sign

International 3rd party traffic - must identify after each exchange of communication

Tech can operate anything above 50 MHz therefore - remember all ~~the~~ 4 of

(Sandy - said "remember - no novices")
just tech - general - advanced - extra

146.52 - all but novices

Remote control ~~to~~ TX do not have to identify provided - no ~~to~~ address + call sign affixed to TX

Amateurs may retransmit ~~to~~ radio broadcasts from space shuttle - as long as approved by NASA

Repeaters have offset - input - receive
output - TX

Input / ^{output} diff
6 meters = 1 MHz

2 meters = 0.6 MHz

1 1/4 mtrs = 1600 KHz

(1)

Is same as taught before. They just are
~~not~~ playing games ~~as~~ with decibels

- stretch break - ^W "So sandy" - "what happened?"

As someone complained about the code. ^{I think} ~~There~~ on
thought it might be a guy who wrote a bad
check. He's the only one who didn't call about the
letter. ~~Tom~~ were told it was a woman. Someone
saw the letter & ~~the~~ woman wrote complaining
about the code saying it wasn't 5 words a minute.
How could anyone tell? Next time, when they start Morse,
I will actually have a class and use certified tape. Be
about 2 weeks. I think person is someone who is upset at being not

being allowed to participate in school. Is someone on 435?
Propagation - ~~total~~ ^{VHF + UHF}

one phenomenon that causes ~~an~~ waves to bend =
tropo

what is layer 2 layers by day + 1 at night = F

2 distinct sublayers of day = F

what is lowest layer used for prop = E

Densest layer to absorb - D (sandy = D is most dense)

~~test~~ Best place to place SWR meter or watt meter
= for best reading - at antenna term or jack

multi-reads = volt, current, resistance

another name = SWR - direct watt meter
reads forward + reflected pow

Volts consid dangerous - 30V

ANSI ~~is~~ sets min RF exposure limits

- when working with power supply, black or red wire connected to fuse
When tuning or adjust a TX filter device - dummy load

- Capacitors - store energy
~~rated~~ stored in farads = micro farads * volts

ferrite material between 2 plates of capacitor is what - die electric material

What is law showing math relationship showing math rel betw volts, ohms, amps = Ohms law

Inductor is a coil - stores and opposes current to changes

Band pass filter = attenuate above & below

low pass = attenuate above a freq

4th band of resistor - tolerance in %

modes

cw or morse code - teleg - turns

amplitude modulated cwr off & on - 1st bit

ITU covers type of emmiss or modulator

used = as A = amplitude

Keywords vertical = electric lines of force & perpendicular

Balun = device matches coax to (feed line) to antenna

rel od ^{simila} base
FM = PM od

(9)

Reactance modulator ^{makes} causes FM - causes
freq to change - If reactance mod
blows - FM TX fails - unmod exp
wave

Yagi - parasitic = parallel (covers 1 guest
Pool guests) " Sandy

2 or more parallel tubes in air

Balanced antenna - symmetrical at feed
point

2 min radio freq exposure - mount at
ground

micro farad = 10^{-6}

novice review

Amateur = self training

Part 97 - cover governs all but construct
static studs

If another person comes over & is lic - they are
control operator - If one does something wrong
(visitor) - both

US call sign = K A N T W =

AA2Z = US

CE = Foreign

FCC req. = current mailing address
- for correspond

Sandy's dog
for sale
5 months
female - will have
her spayed

Rep of foreign Govern - co

(10)

3rd party traf = can communicate foreign
country 3rd party agree

Limit access to TX = Key op off + on switch
ID = 10" fat end

Novice - entry
Tech - above

No business

Business = Immediate safety

5 principles of radio - 5 fundamental principles

Emerg comm

Advance of radio

Improve comm

Increase training

Int'l goodwill

Received complaint of TVI - first must ^{you} ✓ TV

- Put low pass filter ^{TXR} - put on TV = high pass
Current = 2 direct = AC
" " = DC

rated in amps

Voltage = equiv to water pressure water pipe

Unit of resistance = ohms

math relat Volt, current ohm = ohms

propagat in ionosphere = sky wave

" on ground = ground wave or direct

VHF + VHF is ground wave or direct

freq to band conv = 300

$$222.1 = 1\frac{1}{4}$$

$$28 \text{ mhz} = 10 \text{ meters}$$

Novice priv = 80 ^{meters} 3700-3750 = CW

15 ^{meters} 21.1-21.2 = CW

28 ^{mhz} 28.1-28.5 CW + voice
or 10 ^{meters}

222.1-223.91 - all modes

Antennas - proper length to freq TX on

ft for $\frac{1}{2}$ wave antenna $468/\text{freq}$

$\frac{1}{4}$ " " $234/\text{freq}$

10 meters $\frac{1}{2}$ wave = 46.8 feet

10 " $\frac{1}{4}$ " = 23.4 feet

Keep antenna away from face -

SWR = measures standing wave
or direct watt meter

TX apart (removing shielding from TX) we
must make certain TX can't be accidentally
energized

Harmonics = mult thereof 2nd

4th
Harmonics $7.160 \times 4 =$

Signals ~~all~~ random - called parasitic or spurious
signals

signals generated at random = parasite
How can we eliminate parasite in power

TX - by neutralizing

Voice varies freq back & forth = FM

msg to pilot - 3 next

CW or morse code = chirp can be corrected by better output voltage regulator

RF signals above 20,000 become hertz become radio signals

YAGI = radiates signals 1 direct - some as beam

~~two~~ Verts = all direct

dipole - 2 direct

Smallest element yagi = smallest director

will give diagram - in section C

driven element 1/2 wave length

1000 ohms match to 50 ohms - impedance matching device or baln

why use 5/8 wave or 1/4 wave = more gain

talk 33B or voice - use mips

CW = key

computers - keyboard

(missed 3-4 quest in review)

current 2 direct AC
1 direct DC

voltage - water pressure
current rated amps
resistance " ohms

Sensors =

sky wave

- UHF UHF = ground or d

freq to band = 300

28 = 10 ind

21 = 15

ant

$468 / f = 1/2 \text{ wave} / f$

$234 / f = 1/4 \text{ wave}$

$1/2 \text{ for } 10 \text{ \& } 16$

$1/4 \text{ ft } 10 = 8 \text{ ft}$

RF burn = away from face

meter measure forward to reflect μ = SWR
or direct with

sig scattered at random = parasitic or

eliminated by neutralizing spurs

(15)
harmonics = mult

2nd $\times 2$

3rd $\times 3$

voice mod back

+ fast = FM

chirp = prevents by
better output voltage
regulats

signals above what
to becom radio

20000

Beam - yagi - 1 direct

smest - director sect

driven el $\frac{1}{2}$ wave
leg

Hevic 1000 = 50

match - impedum

voice - mike

cw - key

comp keyboard

(16)

Scan

Distress = can do
anything to make
contact

Grounding the equip

- lightning storm -
ground

Conductors + insulate

- insulator - gap

glass

air

porcelain

plastic

- conduct - gap

gold

alum

silver

plat

mike to trans,

SWR - ant. SW -

antes

wave lim - resis

with diag var resist

arrow to grid - (17)
ground

constellations - double
pole, double throw

1 min break

Tech - "Sand - are you
still there???" - "yes"
where is
control ops located at
control point

3rd party = as long
as control ops at control
point
use min power - per
FCC

read reports - only quest
5 perfect in pool
7 moderate

FCC - use repeat -
pause ~~freq~~ between
transmission

FCC - declare state
of emerg when disaster
disrupts normal
comm

first trans from ¹⁸
disasters - tactical
temporary KT

2 & 3rd parties -
after each exchange
of transmission

4 trans 52.5
tech
genl
adv
extra

anything 50 mhz
remote control = no ID
no addr, call sign
affixed

Amardo may rebroadcast
space shuttle by
permis of NASA

Rpts
received input
transmit - output
by meter
i/o = 52 mhz - 1 mhz

145 mhz
2 meters
0.6 mhz

(19)

222.1 = 1600 KHZ

What causes VHF to
bend - Tropo

lowest layer prop -
E layer

2 layers 2 day 1 nite =
F

lowest dense - D dense
day

best read SWR on
watt
ant term want
jack

multimeter = VCR

direct watt = fwd
& reflected pow

min volt consid
dangr = 30V

determined by
ANSI

where do black (20)
or red - fuse

turning = dummy
L

capac - stores energy
basic unit farad
micro fara 10⁻⁶

dielectric
Capac rated
micro farad
+ volt

ohms - VCR
inductor stores &
opposes chg

band pass - pass
attenuat above
below

high pass - passes hi
attn lo
low pass

resistor = resists

4th band - tolerance
in %

CW = AM - Morse (21)
AIA = ITU
Tps

Vert ant = electric
waves travel
perdic to earth
surface

What device matches
balun

Yagi - parallel +
parasitic $\frac{1}{2}$ wave
length

balanced ant at
feed point -
sym

RF - keep ant near
FM simi to phase
mod

if rec mod fails
enmodular CTR
wave

where
Contro opr at ctrl pt (22)
3rd party un lic - ctrl
opr at ctrl pt

FCC - ctrl

Rptr = FCC - pause briefs
between trans

1 stress disas - tactical
state of emerg - FCC
disaster - disrupt
comm

novice - await tech
cal sig - temp KT

Intnl 3rd comm - ID
after evig trans

52.5 - T

G

A

E

146.5k

Remote control -
no addr call

ama opr - may
rebroad = Spcl Shut
perm of Nasa

(23)

repeater
input 1 mhz limit
out 52 mhz

146.22 mhz
0.6 mhz

$222.1 \frac{1}{4} = 1600 \text{ kHz}$

VHF - signals to bend
tropo

layer of ions -

retards D

lowest time E

2 to 1 F

best or most accurate
ant term want
F jack

multimeter

VCR

direct wattmeter
forward + reflects

min voltage =

30V

ANSI - RF

app limits

black + red - fuse

dummy load

capacitors
micro

dielectric

band pass -

lo ps

hi ps

inducts - store

oppose

4th band toleran

in %

(24)

(25)

ITV = 1

vert - electro lip off
perpendicular
to earth

balun - matches

Fm = pm

Yagi parasit
Parallel

min
2 RF = ant at ground
~~VE's - no paperwork~~

VE'S = not asst 8/24/91

School

Tom & company
reserved sketch

317 6815 orig

sched in
Mar Vista

if papers work lost
contact tom - give

na loca date

(26)

once we take
epam, sent by
Tom to Texas
W5YE

If we see quest we
recog, it's because
charlie teaches from
same pool epam
given from.

Sandy passed out
610 & ans form

VE's didn't bring
tests. Sands had
all 3 tests, Tom
to select which test

On 610
Put locati' as Mar Vista
not Marina Del Rey
- class held at Sandys

(27)

No code tests will be given. Brought a no code tech test team

Sandy requested photo id (only) looked at pict. said it was me 2 people - same last name - don't know each other. Tom questioned to see if they should be separated from sitting next to each other

8 year old
Tom got Dr Beebe to help rather than father
Sandy - low many
noise package
here in lounge
Bob + Mike Bryant with
Nemo

(28)

will handle rest of test - Tom will do paper work
Tom passed out this sheet 2 below - Sandy to top. Mike passed out 21-4 mainly when
exam passed out. See p229

Tom asked Sandy about it saying he never sees the exams, they're generated by computer. Sandy went to package & got diagrams.

Sandy passed out tech tests and 3 tech exams to those seated below & to me at table
Tom not in room at start of T&C returned
410

(29)

When Tom asked
 if there were
 3000 of exams,
 Sandy got an
 envelope & started
 to open it. Tom
 told her to give it
 to one of the VEs (Bob)
 (Bob, when I couldn't
 find one of the diagrams
 Tom asked Sandy
 about it and Sandy
 said it was in one
 of the pkg's. She went
 & got it. Mike handed
 it to me.

Sandy came by to
 be sure I had entered
 series test on top, &
 noticed & mentioned
 that I had a

(30)

different test from
 everyone else
 (out load).

During my tech 400
 exam, Mike said -
 "where's Tom?"

Sandy "I don't
 know"

About 10" later
 Tom came down
 from upper
 level. 4:10

Bob ~~agreed~~
 was only VE
 checking exams.

After my novice
 was graded

(31)
they gave it &
610 back (missed 2)
when ~~they~~ ^{Bob} finished
grading my Tech
(cupstaris) Sandy
brought the test
back (I missed 2).

Only those intending
to take code in
next 10 weeks
could get certifiats.
Had to be done in
red so they couldn't
be forged.

For the young boy,
James, Sandy
graded the novice. He
failed. (he missed
3 more than

(32)
allowed) Sandy
was in the process
of reading James
questions for his
second test when
I left. At the
beginning of the
exam session
Sandy said "Wid
better check it's.
A driver license
will be good? We
need to see a picture."
I got my D.C. out.
Sandy Verul & told
Tom it was ok.

All the VE's arrived
without anything
in hand. Just pkg
already there.

APPLICATION FOR AMATEUR RADIO STATION AND/OR OPERATOR LICENSE

NO FCC FILING FEE REQUIRED (see instruction H)

ADMINISTERING VEs' REPORT		EXAMINATION ELEMENTS							
Applicant is credited for: \blacktriangledown		1(A)	1(B)	1(C)	2	3(A)	3(B)	4(A)	4(B)
A. FCC Amateur license held (97.25(a)):	Class \longrightarrow	(NT)	(GA)		(NTGA)	(TGA)	(GA)	(A)	
B. CERTIFICATE(S) OF SUCCESSFUL COMPLETION OF AN EXAMINATION HELD (97.25(b)):	\longrightarrow	Date issued	Date issued	Date issued	Date issued	Date issued	Date issued	Date issued	Date issued
C. FCC Commercial Radiotelegraph Operator License held (97.25(c)):	Number: \longrightarrow			Exp Date					
D. Examination elements passed that were administered at this session:	\longrightarrow				X	X			
E. APPLICANT is qualified for operator license class: <input type="checkbox"/> None:					H. Date of VEC coordinated examination session:				
E1. <input type="checkbox"/> NOVICE (Elements 1(A), 1(B), or 1(C) and 2)					8-24-91				
E2. <input checked="" type="checkbox"/> TECHNICIAN (Elements 1(A), 1(B), or 1(C), 2 and 3(A))					I. VEC Receipt Date:				
<input type="checkbox"/> GENERAL (Elements 1(B) or 1(C), 2, 3(A), and 3(B))									
<input type="checkbox"/> ADVANCED (Elements 1(B) or 1(C), 2, 3(A), 3(B) and 4(A))									
<input type="checkbox"/> AMATEUR EXTRA (Elements 1(C), 2, 3(A), 3(B), 4(A), and 4(B))									
F. Name of Volunteer-Examiner Coordinator: (VEC coordinated sessions only) W5YI GROUP									
G. Examination session location: (VEC coordinated sessions only) MAR VISTA, CA									

SECTION I

1. IF YOU HOLD A VALID LICENSE ATTACH THE ORIGINAL LICENSE OR PHOTOCOPY ON BACK OF APPLICATION. IF THE VALID LICENSE OR CERTIFICATE OF SUCCESSFUL COMPLETION OF AN EXAMINATION WAS LOST OR DESTROYED, PLEASE EXPLAIN.

2. CHECK ONE OR MORE ITEMS, NORMALLY ALL LICENSES ARE ISSUED FOR A 10 YEAR TERM.

2A. <input type="checkbox"/> RENEW LICENSE—NO OTHER CHANGES \longrightarrow	EXPIRATION DATE (Month, Day, Year)
2B. <input type="checkbox"/> REINSTATE LICENSE EXPIRED LESS THAN 2 YEARS \longrightarrow	
2C. <input checked="" type="checkbox"/> EXAMINATION FOR NEW LICENSE	FORMER LAST NAME SUFFIX (Jr., Sr., etc.)
2D. <input type="checkbox"/> EXAMINATION TO UPGRADE OPERATOR CLASS	FORMER FIRST NAME MIDDLE INITIAL
2E. <input type="checkbox"/> CHANGE CALL SIGN (Be sure you are eligible—See Inst. 2E)	
2F. <input type="checkbox"/> CHANGE NAME (Give former name) \longrightarrow	
2G. <input type="checkbox"/> CHANGE MAILING ADDRESS	
2H. <input type="checkbox"/> CHANGE STATION LOCATION	

3. CALL SIGN (If you checked 2C above, skip items 3 and 4)

4. OPERATOR CLASS OF THE ATTACHED LICENSE:

5. CURRENT FIRST NAME CHRISTINE	M.I. F	LAST NAME Mc ELWAIN	SUFFIX (Jr., Sr., etc.)	6. DATE OF BIRTH (Month, Day, Year) 9-18-44
------------------------------------	-----------	------------------------	-------------------------	--

7. CURRENT MAILING ADDRESS (Number and Street) 10331 LINDSEY #141	CITY NORTHRIDGE	STATE CA	ZIP CODE 91326
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8. CURRENT STATION LOCATION (Do not use a P.O. Box No., RFD No., or General Delivery. See Instruction 8)
SAME AS NUMBER 7

9. Would a Commission grant of your application be an action which may have a significant environmental effect as defined by Section 1.1307 of the Commission's Rules? See instruction 9. If you answer yes, submit the statement as required by Sections 1.1308 and 1.1311. YES NO

10. Do you have any other amateur radio application on file with the Commission that has not been acted upon? If yes, answer items 11 and 12. YES NO

11. PURPOSE OF OTHER APPLICATION

12. DATE SUBMITTED (Month, Day, Year)

CERTIFICATION

I CERTIFY THAT all statements herein and attachments herewith are true, complete, and correct to the best of my knowledge and belief and are made in good faith; that I am not a representative of a foreign government; that I waive any claim to the use of any particular frequency regardless of prior use by license or otherwise; and that the station to be licensed will be inaccessible to unauthorized persons.

**WILLFUL FALSE STATEMENTS MADE ON THIS FORM OR ATTACHMENTS ARE PUNISHABLE BY FINE AND IMPRISONMENT
U.S. CODE TITLE 18, SECTION 1001**

13. SIGNATURE OF APPLICANT: (Must match item 5) Christine F McElwain	14. DATE SIGNED: 8-24-91
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ATTACH THE ORIGINAL LICENSE OR PHOTOCOPY HERE

SECTION II - EXAMINATION INFORMATION

SECTION II-A FOR NOVICE OPERATOR EXAMINATION ONLY. To be completed by the Administering VEs after completing the Administering VE's Report on the other side of this form.

CERTIFICATION

I CERTIFY THAT I have complied with the Administering VE requirements stated in Part 97 of the Commission's Rules; THAT I have administered to the applicant and graded an amateur radio operator examination in accordance with Part 97 of the Commission's Rules; THAT I have indicated in the Administering VE's Report the examination element(s) the applicant passed; THAT I have examined documents held by the applicant and I have indicated in the Administering VE's Report the examination element for which the applicant is given examination credit in accordance with Part 97 of the Commission's Rules.

1A. VOLUNTEER EXAMINER'S NAME: (First, MI, Last, Suffix) (Print or Type)

1B. VE'S MAILING ADDRESS: (Number, Street, City, State, ZIP Code)

1C. VE'S OPERATOR CLASS:

GENERAL ADVANCED AMATEUR EXTRA

1D. VE'S STATION CALL SIGN

1E. LICENSE EXPIRATION DATE:

1F. IF YOU HAVE AN APPLICATION PENDING FOR YOUR LICENSE, GIVE FILING DATE:

1G. SIGNATURE: (Must match Item 1A)

DATE SIGNED

2A. VOLUNTEER EXAMINER'S NAME: (First, MI, Last, Suffix) (Print or Type)

2B. VE'S MAILING ADDRESS: (Number, Street, City, State, ZIP Code)

2C. VE'S OPERATOR CLASS:

GENERAL ADVANCED AMATEUR EXTRA

2D. VE'S STATION CALL SIGN

2E. LICENSE EXPIRATION DATE:

2F. IF YOU HAVE AN APPLICATION PENDING FOR YOUR LICENSE, GIVE FILING DATE:

2G. SIGNATURE: (Must match Item 2A)

DATE SIGNED

SECTION II-B FOR TECHNICIAN, GENERAL, ADVANCED, OR AMATEUR EXTRA OPERATOR EXAMINATION ONLY. To be completed by the Administering VEs after completing the Administering VE's Report on the other side of this form.

CERTIFICATION

I CERTIFY THAT I have complied with the Administering VE requirements stated in Part 97 of the Commission's Rules; THAT I have administered to the applicant and graded an amateur radio operator examination in accordance with Part 97 of the Commission's Rules; THAT I have indicated in the Administering VE's Report the examination element(s) the applicant passed; THAT I have examined documents held by the applicant and I have indicated in the Administering VE's Report the examination element(s) for which the applicant is given examination credit in accordance with Part 97 of the Commission's Rules.

1A. VOLUNTEER EXAMINER'S NAME: (First, MI, Last, Suffix) (Print or Type)

1B. VE'S STATION CALL SIGN:

1C. SIGNATURE: (Must match Item 1A)

DATE SIGNED:

2A. VOLUNTEER EXAMINER'S NAME: (First, MI, Last, Suffix) (Print or Type)

2B. VE'S STATION CALL SIGN:

2C. SIGNATURE: (Must match Item 2A)

DATE SIGNED:

3A. VOLUNTEER EXAMINER'S NAME: (First, MI, Last, Suffix) (Print or Type)

3B. VE'S STATION CALL SIGN:

3C. SIGNATURE: (Must match Item 3A)

DATE SIGNED:

**W5YI-VEC PROGRAM
EXAMINATION ANSWER SHEET**

(Print)

Name: CHRISTINE F. McEWAIN

*A
PASSED
R60*

Element: 3A Test Series: J901 Date: 8/24/91 Signature: Christine F. McEwain

- [1.] A B C D
- [2.] A B C D
- [3.] A B C D
- [4.] A B C D
- [5.] A B C D
- [6.] A B C D
- [7.] A B C D
- [8.] A B C D
- [9.] A B C D
- [10.] A B C D
- [11.] A B C D
- [12.] A B C D
- [13.] A B C D
- [14.] A B C D
- [15.] A B C D
- [16.] A B C D
- [17.] A B C D
- [18.] A B C D
- [19.] A B C D
- [20.] A B C D
- [21.] A B C D
- [22.] A B C D
- [23.] A B C D
- [24.] A B C D
- [25.] A B C D

- [26.] A B C D
- [27.] A B C D
- [28.] A B C D
- [29.] A B C D
- [30.] A B C D
- [31.] A B C D
- [32.] A B C D
- [33.] A B C D
- [34.] A B C D
- [35.] A B C D
- [36.] A B C D
- [37.] A B C D
- [38.] A B C D
- [39.] A B C D
- [40.] A B C D
- [41.] A B C D
- [42.] A B C D
- [43.] A B C D
- [44.] A B C D
- [45.] A B C D
- [46.] A B C D
- [47.] A B C D
- [48.] A B C D
- [49.] A B C D
- [50.] A B C D

Total Questions	Minimum Correct to pass
NOVICE	
Element 2	
30	22
TECHNICIAN	
Element 3A	
25	19
GENERAL	
Element 3B	
25	19
ADVANCED	
Element 4A	
50	37
EXTRA CLASS	
Element 4B	
40	30



**W5YI-VEC PROGRAM
EXAMINATION ANSWER SHEET**

(Print) Name: CHRISTINE F. McELWAIN

*2
PAVED
AGD*

Element: 2 Test Series: H90 Date: 8-24-91 Signature: Christine F. McElwain

- [1.] A B C D
- [2.] A B C D
- [3.] A B C D
- [4.] A B C D
- [5.] A B C D
- [6.] A B C D
- [7.] A B C D
- [8.] A B C D
- [9.] A B C D
- [10.] A B C D
- [11.] A B C D
- [12.] A B C D
- [13.] A B C D
- [14.] A B C D
- [15.] A B C D
- [16.] A B C D
- [17.] A B C D
- [18.] A B C D
- [19.] A B C D
- [20.] A B C D
- [21.] A B C D
- [22.] A B C D
- [23.] A B C D
- [24.] A B C D
- [25.] A B C D

- [26.] A B C D
- [27.] A B C D
- [28.] A B C D
- [29.] A B C D
- [30.] A B C D
- [31.] A B C D
- [32.] A B C D
- [33.] A B C D
- [34.] A B C D
- [35.] A B C D
- [36.] A B C D
- [37.] A B C D
- [38.] A B C D
- [39.] A B C D
- [40.] A B C D
- [41.] A B C D
- [42.] A B C D
- [43.] A B C D
- [44.] A B C D
- [45.] A B C D
- [46.] A B C D
- [47.] A B C D
- [48.] A B C D
- [49.] A B C D
- [50.] A B C D

Total Minimum	
Quest-	Correct
ions	to pass:
NOVICE	
Element 2	
30	22
TECHNICIAN	
Element 3A	
25	19
GENERAL	
Element 3B	
25	19
ADVANCED	
Element 4A	
50	37
EXTRA CLASS	
Element 4B	
40	30



1. If you are operating your amateur station on 21150 kHz, in what meter band are you operating?
 - A. 80 meters
 - B. 40 meters
 - C. 15 meters
 - D. 10 meters
2. The amateur service rules were designed to provide a radio communications service that meets five fundamental purposes. What are those principles?
 - A. Recognition of business communications, advancement of the radio art, improvement of communication and business skills, increase in the number of trained radio operators and electronics experts, and the enhancement of international goodwill
 - B. Recognition of emergency communications, advancement of the radio art, improvement of communication and technical skills, increase in the number of trained radio operators and electronics experts, and the enhancement of international goodwill
 - C. Recognition of emergency communications, preservation of the earliest radio techniques, improvement of communication and technical skills, maintain a pool of people familiar with early tube-type equipment, and the enhancement of international goodwill
 - D. Recognition of emergency communications, advancement of the radio art, improvement of communication and technical skills, increase in the number of trained radio operators and electronics experts, and the enhancement of a sense of patriotism and nationalism
3. If you were to receive a voice distress signal from a station on a frequency outside your operator privileges, what restrictions would apply to assisting the station in distress?
 - A. You would not be allowed to assist the station because the frequency of its signals were outside your operator privileges
 - B. You would be allowed to assist the station only if your signals were restricted to the nearest frequency band of your privileges
 - C. You would be allowed to assist the station on a frequency outside of your operator privileges only if you used international Morse code
 - D. You would be allowed to assist the station on a frequency outside of your operator privileges using any means of radio communications at your disposal
4. What emission types are Novice control operators permitted to use from 3700 to 3750 kHz?
 - A. Phone only
 - B. CW and phone
 - C. All amateur emission privileges authorized for use on those frequencies
 - D. CW only
5. What emission types are Novice control operators permitted to use on the amateur 220-MHz band in ITU Region 2?
 - A. CW and phone only
 - B. CW and data only
 - C. Data and phone only
 - D. All amateur emission privileges authorized for use on 220 MHz
6. Another amateur gives you permission to use her amateur station. What are your responsibilities, as the control operator?
 - A. Both you and she are equally responsible for the proper operation of her station
 - B. Only the station licensee is responsible for the proper operation of the station, not you the control operator
 - C. You must be certain the station licensee has given proper FCC notice that you will be the control operator
 - D. You must inspect all antennas and related equipment to ensure they are working properly
7. When is an amateur operator permitted to transmit a message to a foreign country for a third party?
 - A. Anytime
 - B. Never
 - C. Anytime, unless there is a third-party traffic agreement between the US and the foreign government
 - D. When there is a third-party traffic agreement between the US and the foreign government, or when the third party is eligible to be the control operator of the station
8. What is the license class immediately above Novice class?
 - A. The Digital class license
 - B. The Technician class license
 - C. The General class license
 - D. The Experimenter's class license
9. Which one of the following call signs is a valid US amateur call?
 - A. CE2FTF
 - B. G3GVA
 - C. UA1ZAM
 - D. AA2Z