

## Specialized Topics in Areas of Radiologic Sciences P.O. Box 2931 Toledo, Ohio 43606

Phone: 419-471-1973

Website: www.xrayhomestudies.com

### Unit 41

### Pharmacology & Drug Administration

### for Imaging Technologists

### by

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Sincerely,



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GXMOs must notify the ODH in writing within 30 days of any changes in the physician providing direct supervision. If your scope of practice changes (e.g. chiropractic to podiatric), a competency form must be completed and submitted to the ODH.

You may also want to check the ODH web site periodically for changes that may have occurred during your biennium and to share this information with your co-workers and/or administrative staff members.

The ODH website is: http://www.odh.ohio.gov/odhPrograms/rp/rlic/ristatus.aspx

Email is: BRadiation@odh.ohio.gov

Thank you very much.



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Do NOT send your study media i.e. CD, DVD, booklets and/or books back to me.

#### **United States Postal Service (USPS):**

If you are using USPS for priority or express mailing, please keep your receipt with the tracking number in case of a problem with the delivery. Please mark the section for NO SIGNATURE REQUIRED for express mail and send it to my home address: Carolyn J. Frigmanski, MA, BSRT (R) 3134 Aldringham Road Toledo, Ohio 43606. The USPS does NOT deliver to my P.O. Box address. Please call to let me know I should be expecting it at 419 471-1973.

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a. custodial

b. ownership

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Unit 41 Title:	Pharmacology & Drug A	<u>Administration for</u>	<b>Imaging Profes</b>	sionals by Steve	n C. Jensen &
Michael P. Pe				<del></del>	

Pl	ease complete the answer sheet	at the conclusion	n of this post test and return it to the S.T.A.R.S. office.	
C	hapter 1			
1.	The content areas for accredit	ed educational pr	rograms in radiologic sciences are developed by	
	<ul> <li>a. ACR (American College of</li> <li>b. ARRT (American Region</li> <li>c. ASRT (American Society</li> <li>d. JRCERT (Joint Review Company)</li> </ul>	istry of Radiologi of Radiologic Te		
2.	The professional organization	that identifies the	ne injection of diagnostic levels of radiopharmaceuticals	s is
	<ul> <li>a. ACR (American College of</li> <li>b. ARRT (American Region</li> <li>c. ASRT (American Society</li> <li>d. JRCERT (Joint Review College)</li> </ul>	stry of Radiologi of Radiologic Te		
3.	The term used to measure the	competence of a	medical professional is	
	<ul><li>a. medical malpractice</li><li>b. standard of care</li></ul>		c. negligence d. medical ethics	
4.	The term used to describe a se certain circumstances is know		s that determine the behavior of medical professionals t	unde
	<ul><li>a. educational standard</li><li>b. job description</li></ul>	and the second of the second o	c. scope of practice d. standard of care	,
5.	The Health Insurance and Acc	ountability Act v	was the administrative result of President	
	<ul><li>a. William Clinton</li><li>b. Gerald Ford</li></ul>		c. George W. Bush d. Jimmy Carter	
6.	Patients have	rights to	their own medical records.	

c. proprietaryd. transferable

### Chapter 2

7.	Radiopaque contras	t agents and othe	r medicati	ions	administered in th	ne radiology department are classified as
	<ul><li>a. generic drugs</li><li>b. broad drugs</li></ul>				patented drugs legend drugs	
8.	Verbal orders for pr	escriptions are le	gal and va	alid	only when the phy	ysician/prescriber
	<ul><li>a. tape records the ob. signs an order</li></ul>	order		c. dictates an order to the pharmacy d. electronically sends an order		
9.	Drugs that are illega	al for patient use	in the Uni	ted	States are placed of	on Schedule
	a. C-I	b. C-II		c.	C-III	d. C-IV
10	. All Schedule	drugs should	l be accou	nted	for daily and veri	ified by 2 employees.
	a. C-I	b. C-II		c.	C-III	d. C-IV
11	. Acetaminophen wit	h codeine is a cor	ntrolled su	ıbsta	nce and listed on	Schedule
	a. C-I	b. C-II		c.	C-III	d. C-IV
12.	. Controlled substanc Schedule	e drugs with limi	ited and lo	w p	sychological and/o	or physical dependence are listed on
	a. C-I	b. C-II		c.	C-III	d. C-IV
13.	. Many herbal weight	loss products hi	storically	cont	ained Ma Huang (	(ephedra alkaloids) that lead to
	<ul><li>a. cardiac dysrhyth</li><li>b. blurred vision</li></ul>	mias			low blood sugar sleep disorders	levels
14.	A drug reference the manufacturers is kn		ompilation	of	various package ir	nserts put out by pharmaceutical
	<ul><li>a. Facts and Compa</li><li>b. Physicians Desk</li></ul>		)		Handbook of Inj Drug Interaction	
Ch	apter 3					
15.	. Tablets designed to	pass through the	gastric ar	ea a	nd release active i	ngredients into the small intestine are
	<ul><li>a. film-coated</li><li>b. sugar coated</li></ul>				enteric-coated controlled releas	e e
16	. The drug nitroglyce	rin in a solid dos	age form i	is lis	ted in the categor	y known as
	a troches	h narente	val	•	film-coated	d sublingual

17.	17. Liquid dosage forms that require agitation (shaking) before administration are known as			
	a. suspensions	b. solutions	c. emulsions	d. oral fluids
18.	. The fastest absorption pro	oduced by all drug for	ms occurs with	
	a. powders	b. solutions	c. capsules	d. suspensions
19.	. The term used to describe	e drug absorption, distr	ribution, metabolism an	d elimination from the body is
	<ul><li>a. pharmacology</li><li>b. biopharmacy</li></ul>		<ul><li>c. pharmacokinetics</li><li>d. chemical disintegra</li></ul>	ation
20.	. The most common mean	s by which drugs trave	rse cellular membranes	is called
	<ul><li>a. dissolution</li><li>b. absorption</li></ul>		<ul><li>c. active transport</li><li>d. passive diffusion</li></ul>	
21.	. Barium is an ideal oral G	I radiopaque agent bed	cause of its	
	<ul><li>a. compatibility</li><li>b. lipophility</li></ul>		<ul><li>c. acid-base propertie</li><li>d. absorption qualities</li></ul>	
22.	. One of the biologic mem	branes that dramaticall	ly affects drug distributi	ion in the body is known as the
	<ul><li>a. meninges</li><li>b. subcutaneous layer</li></ul>		<ul><li>c. blood-brain barrier</li><li>d. pericardium</li></ul>	
23.	. The metabolic process th	at converts lipid-solub	le substances to water-s	soluble substances is known as
	a. oxidation	b. excretion	c. hydrolysis	d. conjugation
24.	. The elimination of drug 1	molecules primarily oc	curs in the	
	a. liver	b. kidneys	c. small bowel	d. large bowel
Ch	napter 4			
25.	. A drug or natural substant physiological response is	• •	raction) for specific rec	eptor sites that produces a
	a. an agonist	b. an antagonist	c. a mixed agonist	d. a target drug
26.	. Drug screening for the de	etection of heroin must	be completed in	
	a. 3-10 hours	b. 2-3 days	c. 1-2 days	d. 24-48 hours
27.	. A molecule that acts as a	catalyst responsible for	or initiating biochemical	l reactions in the body is called a
	a. protein	b. hormone	c. lipid	d. enzyme

28	. An agent designed to in	hibit or counte	ract the e	effects produced by ot	her drugs or undesirable effects is
	<ul><li>a. a competitive antago</li><li>b. an antagonist</li></ul>	onist		c. a noncompetitive d. a partial antagon	•
29	. The term used to descri	be the degree in	n which	a drug produces the de	esired effect is known as its
	a. efficacy	b. affinity		c. potency	d. therapeutic index
30	. The interval between th	e time a drug i	s adminis	stered and the first sig	ns of its effect is called the
	<ul><li>a. duration of action</li><li>b. peak serum concentre</li></ul>	ration		c. latent period d. minimum effecti	ve concentration
31	. The term used to descri expected additive respo			that give a pharmaco	logic response that is greater than the
	<ul><li>a. synergism</li><li>b. therapeutic index</li></ul>			c. chemical incomp d. effective dose	atibility
Ch	napter 5				
32.	. Lidocaine, atenolol and	adenosine are	in the ca	rdiac medication class	sification known as
	<ul><li>a. antihypertensives</li><li>b. antiarrhythmics</li></ul>			c. diuretics d. anticoagulants	
33.	. A physician may order		to 0	control atrial fibrillation	on.
	a. epinephrine	b. furosemi	de	c. Digoxin	d. diltiazem
34.	. Overuse or improper us	e of diuretics c	an lead t	0	
	a. cardiac failure	b. stroke		c. hydronephrosis	d. kidney failure
35.	. The classification of me myocardial infarction is		to break	up newly formed bloo	d clots in patients with acute
	a. anticoagulants	b. thrombol	ytics	c. antihypertensives	d. antiplatelets
36.	is	a narcotic med	lication a	dministered to decrea	se the perception of pain.
	a. Fentanyl	b. Heroin		c. Ibuprofen	d. Acetaminophen
37.	. Patients who have susta	_	h or spin	al cord injury with mu	ascle spasms may have
	a. morphine	b. codeine		c. diazepam	d. heparin
38.	. The most common anal	gesic in use too	lay is		
	a. ibuprofen	b. morphine	<b>.</b>	c. codeine	d. acetaminophen

39	. Patients who experience	e itching, inflammation	n and overall allergic reat	ions may have an
	prescribed to relieve the			
	a. anticoagulant	b. antihistamine	c. antihypertensive	d. antiplatelet
40	. Diabetic patients taking receiving a radiopaque of	metaformin must hav contrast agent.	e the drug held before an	d for at least hours after
	a. 48	b. 12	c. 24	d. 6
41	. Pentobarbital would be	ordered and recomme	nded for patients who are	experiencing
	<ul><li>a. psychotic episodes</li><li>b. chronic anxiety state</li></ul>	S	<ul><li>c. clinical depression</li><li>d. seizures</li></ul>	
42	. Patients who are claustr imaging (MRI) scans m	ophobic when underg ay need to be given _	oing computed tomographed to relieve	hy (CT) or magnetic resonance ve their condition.
	a. secobarbital	b. haloperidol	c. diazepam	d. amitriptyline
43	. Universal precautions at caring for patients takin			by imaging professionals when
	a. chemotherapy	b. antiviral	c. antifungal	d. antibiotic
Ch	napter 6			
44.	. The recommended kilov	oltage operation rang	e when utilizing barium f	or GI examinations is
	a. 80-90	b. above 90	c. below 70	d. above 140
45.	. Iodine molecules contai are	ned in radiopaque con	ntrast media demonstrate a	anatomic structures well because the
	<ul><li>a. effective photon abso</li><li>b. electron reactors</li></ul>	orbers	c. chemically inert d. low in atomic comp	position
46.	. The term used to describ	be the concentration o	f molecules per volume o	f solution is
	<ul><li>a. osmotic activity</li><li>b. diffusion</li></ul>		c. osmolarity d. osmolality	
47.	. The term used to describ	be one radiopaque neg	gatively charged particle is	S
	a. cation	b. photon	c. electron	d. anion
48.	. The highest percentage	of iodine in a meglum	ine salt intravascular radi	opaque contrast agent is found in
	<ul><li>a. diatrizoate meglumir</li><li>b. iothalamate meglumir</li></ul>		c. Reno-M-60 d. iodamide meglumin	ne 65% (Renovue-65)

49	. With normal renal functi	on, up to 100% of an	intravascular dose is secreted in	n hours.
	a. 12	b. 24	c. 36	d. 48
50	. The enteral radiopaque c	ontrast agent recomm	ended for use with patients wit	h suspected GI perforation is
	<ul><li>a. barium sulfate</li><li>b. iocetamic acid</li></ul>		c. diatrizoate meglumine d. iothalamate meglumine 4	3% (Conray 43)
51	. One of the metal chelates	s used in the production	on of paramagnetic contrast age	ents is
	a. lead	b. gadolinium	c. aluminum	d. silver
52	. The paramagnetic contra contains	st agent useful in iden	tifying hepatic lesions and lesi	ons in lymphatic tissues
	a. manganese	b. gadolinium	c. iron	d. aluminum
53	. A newly developed contr	rast agent composed o	f microbubbles is designed to	enhance organs visualized by
	<ul><li>a. ultrasound</li><li>b. computed tomograph</li></ul>	ny (CT)	c. magnetic resonance imag d. nuclear imaging	ing (MRI)
Ch	apter 7			
54	. The serum iodine concertumen.	ntration must be within	n the range of to mg	/ml. to visualize vascular
	a. 100/200	b. 50/150	c. 400/600	d. 280/370
55	. Death may result to one	patient for every	to patients receiving	g radiopaque contrast media.
	a. 10,000/20,000	b. 20,000/40,000	c. 50,000/75,000	d. 100,000/200,000
56	. Patients who undergo hy experience	perosmolar radiopaqu	e contrast medium injection in	to the carotid arteries may
	a. stroke		c. vasovagal reaction	
	b. cerebral hemorrhage		d. transient ischemic attacks	
57	. One of the pharmacodyn administration is	amic explanations for	sudden death after radiopaque	contrast medium
	a. calcium chelation		c. hypoosmolarity d. iodine chelation	
	b. hyperosmolarity			
58	is an ir	nmediate life-threaten	ing systematic hypersensitivity	y reaction.
	<ul><li>a. Type II hypersensitivi</li><li>b. Anaphylactoid reaction</li></ul>		<ul><li>c. Anticoagulation effect</li><li>d. Anaphylaxis</li></ul>	

59. Radiopaque contrast m	nedia are respo	onsible for	approxim	nately% of al	ll acute renal failt	ire events.
a. 2	b. 10		c. 25		d. 50	
60. Iodine-rich radiopaque tachycardia, agitation a	contrast med and diaphores	ia can caus is (sweatin	se a comb g) comm	oination of signs ar only called a	nd symptoms such	n as fever,
<ul><li>a. adverse reaction</li><li>b. anaphylactoid react</li></ul>	ion		-	oid storm traindications		
61. Gadolinium compound injection.	ls may produc	e an increa	ase in ser	um iron concentrat	tions up to	hours after
a. 4	b. 8		c. 12		d. 24	
62. A "more forceful heart administered.	beat" may be	described	by patien	ts when a	compo	und has been
a. gadolinium	b. manga	nese	c. feru	moxide	d. microbub	ble
63. An adverse reaction rep	oorted by nun	nerous pati	ents rece	iving octafluoropro	opane albumin m	icro-spheres is
a. hives	b. dyspne	a	c. atria	l fibrillation	d. anaphylax	αis
64. Imaging professionals producing	must recogniz	ze certain d	rugs may	interact with radio	opaque contrast n	nedia by
a. absorbed gas	b. charge	d photons	c. prec	ipitates	d. stable ato	ms
65. Barium fecaliths can be	e formed when	n barium s	ulfate cor	nbines with		
a. calcium	b. sodium			c. iron	d. potassium	
Chapter 8						
66. Inaccurate measuremen	at of drug dos	es can lead	to			
a. significant toxicity	b. seizure			c. skin rashes	d. vision imp	airment
67. The most common met	hod of drug a	dministrati	on is			
a. sublingual	b. topical			c. oral	d. parenteral	
68. A topical route of drug	administratio	n that resul	lts in inhi	bited microorganis	sm growth and de	evelopment is
a. astringent	b. antisept	tic		c. cleansing	d. anesthetic	
69. Vaccines, lidocaine and	l sedatives are	administe	red by th	e	route.	
a. intravenous bolus	h intrade	mal		e subcutanaous	d intromuses	ulor

70	. Tı	berculin and allergins	are administered by the	re	oute.
	a.	intravenous bolus	b. intradermal	c. subcutaneous	d. intramuscular
71	. Th	ne common anatomic a	rea for intravenous bolus dr	ag administration is	
	b. c.	carpal and digital vein vastus lateralis cephalic and basilic v jugular vein			
72	. Th	e recommended needle	e size for injection of antibio	otics and electrolytes is	s
	b. c.	20 to 23 gauge x 1 ½ 23 to 25 gauge x 2 x 2 25 to 27 gauge x 1 ½ 18 to 23 gauge x 1 to	2 ½ inches to 2 inches		
73.	. Th	e commonly used hous	sehold measurement for an e	equivalent 240 to 250	milliliters is
	a.	16 ounces	b. 1 cup or glass	c. 1 pint	d. 8 tablespoons
74.	Be lev	fore administering a ra	diopaque contrast agent, the	imaging professional	should check lab results for the
	b. c.	red and white blood coinsulin blood urea nitrogen (Hemoglobin			
75.	Th	e angle of needle insert	tion for a subcutaneous (SC)	injection should usu	ally be to degrees.
	a.	45/60	b. 30/45	c. 25/50	d. 60/90
76.	Th	e larger the number of	the gauge of the needle, the	the n	eedle.
	a.	longer	b. finer	c. shorter	d. wider
77.	The	e term used to describe tissue has been punctu	the slight pinkish tinge that	results by pulling out	the syringe plunger slightly after
	a.	extravasation	b. infiltration	c. diffusion	d. aspiration
78.	The	e most common intrave strast agents is	enous needle used by imagin	g professionals for the	e administration of radiopaque
	b. c.	intracatheter over-needle catheter winged-tip or butterfly percutaneous catheter	v set		

79.	79. The most common insertion site for central venous (CV) catheters or lines is				
	a. subclavian vein	b. femoral vein	c. internal jugular vein	d. basilic vein	
80.	An interventional device	used to measure pulmonary ar	terial pressures is called a		
	<ul><li>a. venous access device</li><li>b. Swan-Ganz catheter</li><li>c. peripherally inserted</li><li>d. subclavian catheter</li></ul>				
	their meaning in Column	n abbreviations and symbols re B.	elated to medication administra	ation in Column A to	
Col	umn A		Column B		
81.	ad lib		a. nonprescription drug		
82.	gr		b. according to necessity		
83.	OTC		c. into subcutaneous tissue		
84.	pc		d. freely		
85.	SC		e. four times each day		
86.	bid		f. by mouth, orally		
87.	VO		g. 60 milligrams		
88.	prn		h. verbal order		
89.	qid		i. after meals		
90.	PO		j. twice a day		
Cha	npter 9				
91.	A unicellular microorgan	nism that may possess spherica	al, rod shaped spiral and/or co	mma shapes is called a	
	a. virus	b. protozoan	c. bacterium	d. fungus	
92.	The common human path	hogens that cause cystitis and	nephritis are called		
	a. viruses	b. protozoans	c. bacteria	d. fungi	
93.	The common human path	nogens that cause pneumonia a	and sinus infections are called		
	a. viruses	b. protozoans	c. bacteria	d. fungi	
94.	The common human path	nogens that cause amebic dyse	ntery are called		
	a. viruses	b. protozoans	c. bacteria	d. fungi	

95.	The common human pa	thogens that cause fever bliste	ers, measles, serum hepatitis ar	nd AIDS are called
	a. viruses	b. protozoans	c. bacteria	d. fungi
96.	The mode of transmission	on for tuberculosis is		
	a. contact	b. vector	c. predisposition	d. airborne droplet
97.	The next stage in the int	fection cycle after portal of ex	it is known as	
	<ul><li>a. mode of transportati</li><li>b. reservoir of infection</li><li>c. portal of entry</li><li>d. susceptible host</li></ul>			
98.	In the infection cycle, bl	lood, saliva, semen, sputum ar	nd mucus are all known as	
	<ul><li>a. portals of entry</li><li>b. portals of exit</li><li>c. reservoirs of infection</li><li>d. modes of transportat</li></ul>			
99.	An object that has been	in direct contact with pathoge	nic organisms is referred to as	a
	a. vector	b. reservoir	c. fomite	d. host
100	. The term nosocomial re	efers to		infections.
	<ul><li>a. hospital-acquired</li><li>b. airborne droplet</li><li>c. virally-acquired</li><li>d. susceptible host</li></ul>			
101.	. Percutaneous and muco	osal exposure are the primary	routes for contracting hepatitis	
	a. A	b. B	c. C	d. E
102.	. HIV (human immunode	eficiency virus) is primarily tr	ansmitted by	
	a. feces	b. sweat	c. urine	d. blood
103.	The major component of	of any infection control system	n is the importance of	
	a. wearing gloves	b. handwashing	c. using alcohol	d. wearing gowns
104.	The item of protective a	apparel that should be put on l	ast and removed last is	
	a. gloves	b. mask	c. gown	d. protective eyewear
105.	A biohazard symbol sho	ould be applied to a suitable co	ontainer for items contaminate	d with
	a. glass	b. dust or dirt	c. blood or body fluids	d. chemicals

#### Chapter 10 106. A psychological condition/disorder that consists of irrational fear leading to avoidance is called a. anxiety b. antisocial behavior c. panic disorder d. phobia 107. A drug-induced state of relaxation allowing patients to tolerate unpleasant procedures is known as a. general anesthesia b. conscious sedation c. local anesthesia d. unconscious sedation 108. Patients who experience claustrophobia when undergoing computed tomography (CT) or magnetic resonance imaging (MRI) may be given \_\_\_\_\_ medication. a. antianxiety b. antihypertensive c. analgesic d. opiate 109. The category of drugs that can produce all levels of anesthesia from conscious sedation to complete anesthesia are known as a. general anesthetics b. local anesthetics c. barbiturates d. opiate analgesics 110. The most widely used benzodiazepine for conscious sedation is a. midazolam b. fentanyl c. phenobarbital c. thiopental Chapter 11 111. The highest survival rate after cardiac arrest occurs in patients who receive cardiopulmonary resuscitation (CPR) within minutes. a. 1 b. 10 c. 15 d. 4 112. The most valuable, potentially lifesaving therapeutic agent available to cardiac arrest patients is a. atropine b. vasopressin c. epinephrine d. dopamine 113. Renal, coronary, intracerebral and mesenteric blood vessel vasodilation is a pharmacodynamic effect of a. atropine b. vasopressin c. epinephrine d. dopamine 114. The current recommended drug for patients with shock-resistant ventricular fibrillation and asystole is a. atropine b. vasopressin c. epinephrine d. dopamine

115. In 1998, the Journal of the American Medical Association claimed that adverse drug reactions may cause

c. 500,000

d. 1 million

more than deaths a year in the United States.

b. 250,000

a. 100,000

116. A patient may experient tachycardia after the adu	nce a worsening of my ministration of	ocardial ischemia, ven	tricular fibrillation and ventricular
a. epinephrine	b. vasopressin	c. atropine	d. dopamine
117. A patient may experier (fasciculations) after the	nce gait disturbances (a administration of	ntaxia), ringing in the e	ears (tinnitus) and muscle twitching
a. epinephrine	b. vasopressin	c. atropine	d. lidocaine
118. The first local anesthet	ic was		
a. cocaine	b. opium	c. morphine	d. heroin
<ul><li>119. A strong alkalinizing a used in select patients is</li><li>a. sodium chloride</li></ul>	gent that has been scru	itinized for treatment in	n cardiac arrest, but still frequently
<ul><li>b. sodium bicarbonate</li><li>c. potassium chloride</li><li>d. nitroglycerin</li></ul>			
120. Death usually ensues if a cardiac arrest.	medications are not a	dministered to the pation	ent within the first minutes of
a. 4	b. 6	c. 8	d. 10



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City		State	Zip Code
Social Security Number			Date

## Answer Sheet for: Unit 41 Pharmacology & Drug Administration for Imaging Technologists by Steven C. Jensen & Michael P. Peppers

### Please place your lettered selection for each question in the respective box and return ONLY this post test sheet to S.T.A.R.S.

11.	21.	31.	41.	51.	61.
12.	22.	32.	42.	52.	62.
13.	23.	33.	43.	53.	63.
14.	24.	34.	44.	54.	64.
15.	25.	35.	45.	55.	65.
16.	26.	36.	46.	56.	66.
17.	27.	37.	47.	57.	67.
18.	28.	38.	48.	58.	68.
19.	29.	39.	49.	59.	69.
20.	30.	40.	50.	60.	70.
	12. 13. 14. 15. 16. 17. 18.	12.       22.         13.       23.         14.       24.         15.       25.         16.       26.         17.       27.         18.       28.         19.       29.	12.       22.       32.         13.       23.       33.         14.       24.       34.         15.       25.       35.         16.       26.       36.         17.       27.       37.         18.       28.       38.         19.       29.       39.	12.       22.       32.       42.         13.       23.       33.       43.         14.       24.       34.       44.         15.       25.       35.       45.         16.       26.       36.       46.         17.       27.       37.       47.         18.       28.       38.       48.         19.       29.       39.       49.	12.       22.       32.       42.       52.         13.       23.       33.       43.       53.         14.       24.       34.       44.       54.         15.       25.       35.       45.       55.         16.       26.       36.       46.       56.         17.       27.       37.       47.       57.         18.       28.       38.       48.       58.         19.       29.       39.       49.       59.

Please continue on the reverse side.

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## Please place your lettered selection for each question in the respective box and return ONLY this post test sheet to S.T.A.R.S.

71.	81.	91.	101.	111.
72.	82.	92.	102.	112.
73.	83.	93.	103.	113.
74.	84.	94.	104.	114.
75.	85.	95.	105.	115.
76.	86.	96.	106.	116.
77.	87.	97.	107.	117.
78.	88.	98.	108.	118.
79.	89.	99.	109.	119.
80.	90.	100.	110.	120.