Phyto 1
final 2013,2016,2022

Al Azhar University
Faculty of Pharmacy
Department of Pharm. Chemistry & Pharmacognosy
Phytochemistry 1

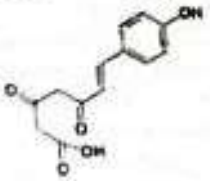
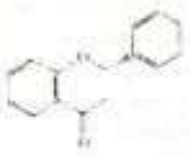
04.May.2016
Time: 2h
M: /60

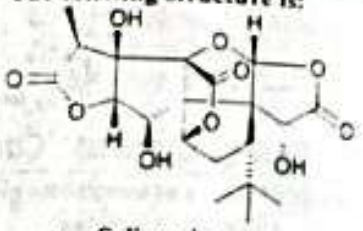
FINAL EXAM 2013

إسم الطالب/ة بالعربية (ثلاثي):

الرجاء عدم الكتابة بالقلم الرصاص

I. Select the Best Correct Answer: (40M)

1	The use of plants as medicines goes back to: a. Ayurveda medicine b. Pharmacognosy knowledge c. Early man d. Written evidence of traditional medicine	41	Phospholipids present in high amount reach more than 50% in: a. Flaxseed b. Soybean c. Ginger d. Curcum
2	The knowledge of drugs means: a. Pharmacognosy b. Phytochemistry c. Plant metabolism d. Traditional Medicine	42	The following type of structure is refer to:  a. Ar-C3 + 2 × C2 (stylpyrones) b. Ar-C3 + 3 × C2 (isoflavonoids)
3	Isolation of the natural active ingredient a science belong to: a. Screening clinical trials b. Pharmacognosy c. Phytochemistry d. Biochemistry	43	Aroma source of turmeric due to: a. α & β tumerone b. Curcumin c. Gingerol d. Shogoul
4	Other chemical groups than the main one refer to: a. Active ingredient(s) b. Substance contents c. Accompanying ingredient(s) d. Mineral & Vitamins	44	All Flavonoids have a common biosynthetic origin. a. Truth b. False
5	Phenolics are able to react as: a. Antioxidant b. Pro-oxidant c. Anti-inflammatory d. All of the above	45	One of the functions of flavonoids in plants: a. Dfence & protection b. Reproduction c. Heavy metal tolerance d. All of the above
6	C_6-C_1 phenolic acids that are hydroxylated derivatives of: a. Benzoic acid b. Cinnamic acid c. Phenylpropanoids d. Simple phenols	46	The following structure is: 

			a. Flavanol b. Flavonol c. Flavanone d. Flavone
7	From stability point of view phenols are: a. Stable b. Unstable c. Most of phenols are stable d. Most of phenols are unstable	47	The follwing structure is:  a. Sylimarin b. Ginkgolide B
8	Detection of phenols with TLC must be in: a. Acid medium b. Alkaline medium c. Present of ferric chloride d. Vanillin and HCl	48	Less polar flavonoids are extracted wi while more polar with alcohol. a. Truth b. false
9	The first reaction in Shikimic pathway is: a. Formation of 3-P-glyceric acid b. PEP + 3-P- Erythrose c. Cyclization of DAHP to 5-dehydroquinate	49	Catechins & proanthocyanidins are ex water. a. Truth b. False
10	Chorismate acid holds a key position in metabolism. a. Truth b. False	50	Anthocyanins are extracted with cold a methanol. a. Truth b. False
11	Amination and anthranilate formation from responsibility of: a. Pyruvic acid b. 5-HO-quinic acid c. Chorismic acid d. Phosphoenol Pyruvic	51	The first flavonoids is: a. Chalcone b. Naringenin c. Kaemferol d. Quercetin
12	Arctostaphylos uva-ursi belong to: a. Ericaceae family b. Fabaceae family c. Asteracea family d. Lamiaceae family	52	*Japanese Pagoda* refer to: a. *Ginkgo biloba* b. *Sophora japonica* c. *Passiflora japonica*
13	The active ingredient of Uva-ursi is: a. Arbutin b. Cyanidin c. Gallotannins d. Lithospermic acid	53	The principal and high amount ingredie Thyme is: a. Thymonine b. Thymol c. Rosemarinic acid d. Salvigenin
14	The tannins in Uva-Ursi act as an: a. Anti-inflammatory b. Antiseptic c. Antibleeding d. Antibacterial	54	The effect of thyme is: a. Bronchial antispasmodic & antik b. Expectorant c. Cough d. All of the above

The antimicrobial effect is associated with: a. Aglycon hydroquinone released from arbutin in acid medium b. Aglycon hydroquinone released from arbutin in alkaline medium c. Aglycon hydroquinone released from benzoic acid d. Aglycon hydroquinone released from shikimic acid	55	Chamazulene present in: a. *Thyme vulgaris* b. *Passiflora incarnate* c. *Achillea millefolium* d. *Ginkgo biloba*	
Administration of Uva-ursi with aspirin lead to: a. Increasing of the activity of Uva-ursi. b. Decreaing of the activity of Uva-ursi. c. Delay of the activity of Uva-ursi. d. Inactivation of uva-ursi.	56	Anthocyanins arise from the general metabolism of: a. Flavonoids b. Tannins c. Phenylpropanoids	
The fat burner effect of artichoke due to: a. Chlorogenic acid b. Neochlorogenic acid c. Cynarin d. Cynaropicrin	57	Anthrocyanins are soluble in chloroform and alcohols. a. Truth b. False	
The antioxidant effect of artichoke due to: a. Phenolic properteis of the drug. b. Vitamins present in the drug. c. Quercetin & Silymarin d. Inhibiting HMG-CoA reductase	58	Blueberry Inhibit collagen induced platelet aggregations; this effect due to: a. Anthocyanin b. Proanthocyanidins c. Flavonoids d. Minerals & vitamins	
Increasing of bile flow due to: a. Antioxidant properteis of cynarin. b. Cholagouge effect of cynarin c. Anti-inflammatory effect of cynarin d. High amount of fiber in the drug.	59	Astringent and antiseptic activities of tannins due to present of : a. Water soluble polyphenols b. Condensed tannins c. Hydrosoluble tannins d. (B+C)	
Fresh artichoke is an excellent source of: a. Vitamin B_3 b. Vitamin B_6 c. Vitamin B_9 d. Vitamin B_{12}	60	True tannins are simple phenols with molecular weight reach 5000 D a. Truth b. False	
Cynara scolymus is contraindication in cases of bile duct blockage. a. Truth b. False	61	Hydrosoluble tannins are classify in a. Condensed & complex tannins b. True & pseudo tannins c. True & Condensed tannins d. None of the above	
The anti-inflammatory effect of rosemary due to: a. Phenolic acids b. Flavonoids c. Diterpen d. Triterpen	62	Pseudo tannins are simple phenolics that gives gallitannins& ellagitannins. a. Truth b. False	
Rosemary consider one of the memory enhancer, this fact due topresent of: a. Phenolic acids b. Flavonoids	63	Flavan-3,4-diols called: a. Lecoanthocyanidins b. C-glucosidic ellagitannins c. Proanthocyanidins	

	c. Diterpen d. Triterpen		d. Phlobaphenes
24	The volatile oils in rosemary have a role in: a. Antiseptic b. Mood elivator c. Brain performance d. All of the above	64	Condensed tannins are converted insoluble compounds known as a. Lecoanthocyanidins b. C-glucosidic ellagitannins c. Proanthocyanidins d. Phlobaphenes
25	Rosemary is a very good source of: a. Vitamin A & iron b. Vitamin A & manganese c. Vitamin C & magnesium d. Vitamin D & calcium	65	The highest amount of tannins fou a. Blackberry b. Blueberry c. Tea d. Oak
26	Balsams are defined as oleoresine. a. Truth b. False	66	Lady's Mantle shown to inhibit tum a. Truth b. False
27	Echinacoside belong: a. Polysaccaride b. Alkamide c. Phenylpropanoids d. Caffeic acid derivatives	67	The cardiotropic effect of crataegus the increased membrane permeabili as well as the stimulation of phospho a. Truth b. False
28	Prenylation in 6 position yield to a. Linear furanocoumarin b. Angular furanocoumarin c. Linear furano / pyrano coumarin d. Angular furano / pyrano coumarin	68	One of the best drugs for bleeding he Witch Hazel a. Truth b. False
29	The glycosides forms of coumarins are: a. More soluble in water b. Less soluble in water c. Non soluble in water	69	Lawsone (2-hydroxy-1,4-naphthaquin active ingredient of lawsonia, from qu a. Truth b. False
30	Khellin is used in vitiligo and: a. UTI b. PMS c. BPH d. GIT	70	The following structure is:  a. Lawsone b. Juglone c. Myrecein d. Hyperforin
31	The main biological properties of dong quai due to: a. Coumarin b. Lignans c. Isoflavonoids d. Mineral & Vitamins	71	The sedation effect of hawthorn attribu oligomeric procyanidins. a. Truth b. False

32	Vasodilatatory effect of dong quai due to: a. Coumarin b. Lignans c. Isoflavonoids d. Mineral & Vitamins	72	*Cascara sagrada* is a. Emollient b. Laxative c. Purgative
33	Dong quai is contraindicated in case of: a. CHF b. PMS c. Pregnancy d. Children	73	Senna is contraindication in cardiac patients, this fact due to: a. Purgative effect of senna b. Hypokalemia effect c. Increase the side effect of cardiac drugs d. Dehydration
34	Results from bonding between the β carbons of side chain of two units derived from 1-phenylpropane: a. Lignans b. Neolignans c. Flavonoids d. Isoflavonoids	74	Walnut is a great remedy for the brain functions. This fact due to: a. Oleic acid b. Omega 3 c. Juglone d. All of the above
35	The drug obtaining from *Podophyllum pelatum* is: a. Taxol b. Pellatin c. Etoposide d. Teniposide e. None of the above	75	St. John's Wort theoretically increasing the risk for hypertensive crisis. a. Truth b. False
36	Lignans are famous as: a. Antitumors b. Anti-inflammatory c. Nutritive d. Diuretics	76	The medicinal part of cannbis is: a. Leaves b. Twig tips of the female flowers c. Twig tips of the male flowers d. Whole plant
37	Milk thistle belong to: a. Ericaceae family b. Fabaceae family c. Asteracea family d. Lamiaceae family	77	The active ingredient in cannabis is: a. 9-tetrahydrocannabinol b. Cannabidiol c. Cannabinol d. Caryophyllen
38	The hepatoprotective effect of silibinin due to: a. Decreases production of superoxide by the Kupffer cells. b. Inhibits leukotriene formation. c. Increases glutathione production by the liver. d. All of the above	78	Psychotropic action of cannabis due to: a. 9-Tetrahydrocannabinol b. Cannabidiol c. Cannabinol d. All of the above
39	Geinsin, one of the active ingredients of: a. *Sylibum marianum* b. *Schizandra chinensis* c. *Linum usitatissimum* d. *Glycine soja*	79	Lack of the effect of lethal dose in marijuana due to: a. Poperity of addiction b. Properity of dependancy c. Properity of tolerance. d. Properity of the chemical group which belong.
40	The dengerous effect of Linum refer to: a. Flaxseed b. Flaxseed oil	80	Hops is an estrogen, thus its indicate for menopause cases. a. Truth b. False

1		21		41		61	
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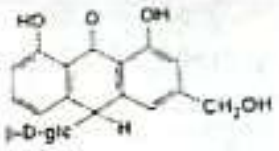
18		38		58		78	
19		39		59		79	
20		40		60		80	

II. **Starting from Chorismic acid to obtain phenylalanine:** (4M)

Comment the following structure: (6M)

a. Mention the name of the structure. (1M)



b. Mention the name of chemical group? (2M)

c. Mention one benefit & one precaution for the drug. (3M)

i. Benefit is:

ii. Precaution is:

IV. Discuss briefly just 2 of the following drugs:

a. Thyme

Phytochemical (s): (3M)

Target patient (s): (2M)

b. Oak

Phytochemical (s): (3M)

Effect: (2M)

c. Frangula

Chemistry: (3M)

Effect: (1M)

Contraindication: (1M)

GOOD LUCK!

Dr. Mazen A. El-Sakka

May 4, 2016