Al Azhar University-Gaza
Faculty of Pharmacy
Medicinal Ch. &Pharmacognosy Department
Phytochemistry I

April 6, 2014
Time: 50
Mark: 40

Midterm Exam

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I. Truth or False: (10M)

No.	Question	T/F
1.	Determination of accompanying substance refer to chemical ingredient (s) in the plant.	T
2.	Soxhlet, one of the famous methods for separation of active ingredient (s).	F
3.	The term "phenolic" refer to carbolic acid that used in various medical and cleaning products.	T
4.	Phenols have antioxidant properties, found in capsicum as capsaicin and many herbal teas.	T
5.	Phenolic can act as pro-oxidants by chelating metals.	T
6.	Phenolic acids refer to cinnamic and benzoic acid only.	T
7.	Caffeic acid belong to cinnamic acid derivatives.	T
8.	Chlorogenic acid belong to phenylpropanoids derivatives	T
9.	All of phenols are stable in alkaline medium.	F
10.	Condensation of phosphoenolpyruvate with erythrose 4 phosphate, which yield 5-dehydroquinic acid.	F
11.	Condensation 5-dehydroshikimate with PEP yield chorismate.	F
12.	Glycosidic phenylpropanoids esters have interesting anti-inflammatory activity.	T
13.	The antimicrobial effect is associated with the aglycon hydroquinone.	T
14.	Acidic urine reduces the antibacterial effect of *Uva ursi*.	T
15.	In case of constipation, artichoke is recommended because it high fiber contains.	T
16.	Carnosic acid one of the important ingredients in artichoke.	F
17	Rosemary is excellent source of iron & vitamin C.	F
18.	Echinacoside is a caffeic acid glycoside from the phenylpropanoids class.	T
19.	Lignans arise from the metabolism of phenylalanine via cinnamic acid, p-coumaric acid.	F
20.	Khellin, an pyranocoumarin used in UTI	T

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II. Please Choose the best correct answer: (10M)

1. Consist of a singly substituted phenolic ring with alcoholic, aldehydes or carboxylic acid groups.
   a. Simple phenols
   b. Phenolic acids derived from cinnamic acid
   c. Phenolic acids derived from benzoic acid
   d. Phenolic acids derived from Phenylpropanoids

2. Phenylpropanoids are naturally occurring phenolic compounds having an aromatic ring to which
   a. a one-carbon side chain is attached
   b. a two-carbon side chain is attached
   c. a three-carbon side chain is attached
   d. a four-carbon side chain is attached

3. Cynarea reduce the risk of breast cancer because the present of:
   a. Cynarin as one of caffeic acid derivatives.
   b. Cynaropicrin as one of sesquiterpene compound.
   c. Flavonoids
   d. Neochlorogenic acid

4. The brain performance properties of rosemary due to:
   a. Carnosic acid
   b. 1,8 cineol
   c. Rosemarinic acid
   d. Flavonoids

5. *Myroxylon balsamum* belong to:
   a. Benzoic containing drugs
   b. Cinnamic containing drugs
   c. Phenylpropanoids containing drugs
   d. (a+b)

6. Echinacoside is:
   a. Caffeic acid glycoside from the phenylpropanoids class.
   b. Ferulic acid glycoside from the phenylpropanoids class.
   c. Salicylic acid glycoside from the phenylpropanoids class.
   d. Cholagenic acid glycoside from the phenylpropanoids class.

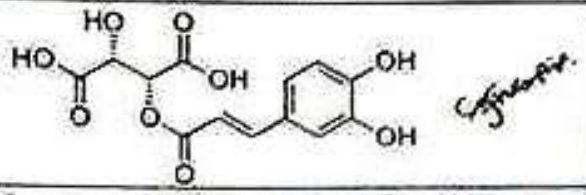
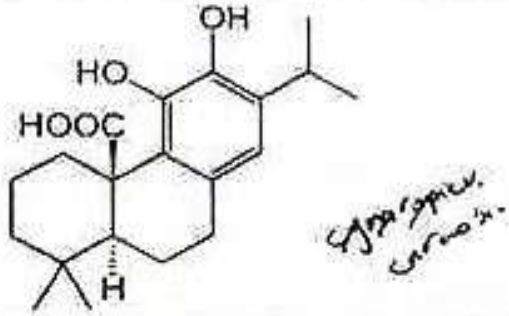
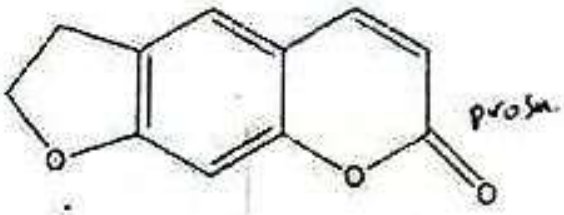
7. Echinacea may alter the actions of other medicines that affect your immune system such as:
   a. Steroids
   b. Cyclosporine
   c. Warfarin
   d. (a+b)

8. Aesculin is an active ingredient used as:
   a. Anti-inflammatory agent in psoriasis.
   b. Nerve tonic
   c. Photocatalizer agent in vitiligo
   d. Venous tonic

9. The most important ingredient in Dong Quai which characterized the drug benefits is:
   a. Furanocoumarin
   b. Isoflavonoids
   c. β – Sitosterol
   d. Polysaccharides

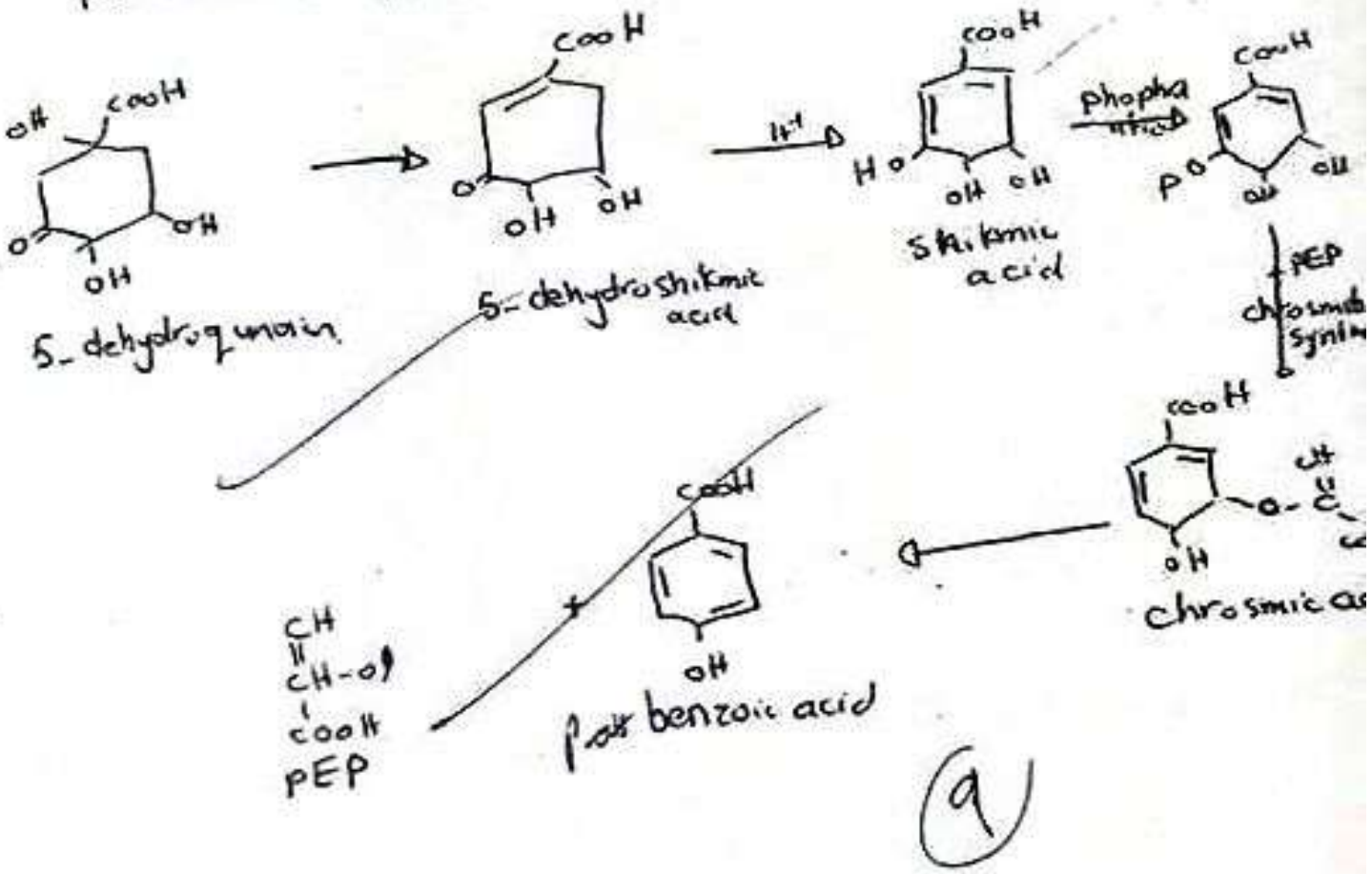
10. In turmeric the coloring agent is:
   a. α & β tumerone
   b. (-) zingiberene & arcurcumene
   c. Curcumin derivatives
   d. Gingerol & Shogoal

III. Match the suitable number from A to B (10M)

No.	A	No.	B
1.	Hydroquinone glycosides	8	Cynaropicrin
2.	Contraindicated with horse chesnut.	6	Pyranocoumarins
3.		7	Curcumin
4.	Improve Vein Health and Flexibility	9	Psoralen
5.		3	Rosemarinic acid
6.	Visnadin is	1	Arbutin
7.			Furochromones
8.	Anti inflammatory agent in artichoke	4	Aesculin
9.			Ursolic acid
10	Inhibit thromboxane synthesis, therefore it should not be used by patients who are at risk for hemorrhage	2	warfarin
		10	Caftaric acid
			Ginger
		5	Carnosic acid

IV. Starting from precursor of phenolic compound to benzoic acid (10M)

precouser of phenolic compound 5- dehydro quinate.



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