
	TANTA UNIVERSITY FACULTY OF PHARMACY DEPARTMENT OF PHARMACOGNOSY				
	FINAL EXAM FOR SECOND LEVEL PHARM D (CLINICAL STUDENTS)				
COURSE TITLE:	Pharmacognosy 2		COURSE CODE: PG-303		
DATE:	11/3/2021	TERM: FIRST	TOTAL ASSESSMENT MARKS: 50	TIME ALLOWED: 2 HOURS	

Please select only one answer from the following questions and mark your answers in the provided Answer Sheet. You are provided with 100 MCQs of total 50 marks in 8 pages.

(0.5 × 100= 50 marks, 120 minutes)

Subterranean & Unorganized Drugs: questions 1-66

Seeds & Fruits: questions 67-100

1- Isoquinoline alkaloids are found in

- a-aconite and devil's claw b-ipecacuanha and *Stephania tetrandra*
c-ginger and hydrastis d-liquorice and butcher's broom

2-Ginger and turmeric belong to this family:

- a-Liliaceae b-Zingiberaceae c-Ranunculaceae d-Leguminosae

3-Valerian and roots could be used as hypnotic.

- a-gentian b-aconite c-butcher's broom d-rauwolfia

4-Rauwolfia roots contain alkaloid:

- a-cephaeline b-reserpine c-berberine d-palmitine

5-The use of Rio ipecacuanha is safer than Cartagena type due to presence of in a higher percentage:

- a-emetine b-cephaeline c-cyclopamine d-cathmanthine

6-Veratrum & aconite roots are poisonous plants due to presence of:

- a-protoveratrine & hydrastine b-tetrandrine & berberine
c-valerianine & aconitine d-protoveratrine & aconitine

7-Dandelion roots contain as a type of polysaccharides:

- a-inulin b-mucilage c-gums d-agarose

8-Gentian roots could be used in:

- a-eye infection b-PMS c-chronic fatigue d-lung silicosis

9-Crystal sheath is found in powder of:

- a-liquorice b-ipecacuanha c-rhubarb d-gentain

10-These drugs could induce emesis:

- a-ginger & veratrum b-veratrum & rauwolfia c-veratrum & ipecacuanha
d-aconite & hydrastis

11-Panaxans polysaccharides with hypoglycemic effect exist in:

- a-fermented gentain b-Asian ginseng c-unpeeled ginger d-wild liquorie

12-Detection of emetine is done by:

- a-HCl & KClO₄ b-HCl & FeCl₃ c-HCl & KMnO₄ d-HCl & boric acid

13-Drying of gentian roots leads to:

- a-color change into brown b-more characteristic odor c-improve the taste
d-all of them

14-Ginseng drug is used as

- a-carminative b-laxative c-adaptogen d-counter irritant

15- We could use ... to treat post-menopausal syndrome and ... to treat oedema:

- a-black cohosh, butcher's broom b-black cohosh, angelica
c-marshmallow, butcher's broom d-filix-mas, liquorice

16-Which is false about glycyrrhizin:

- a-has anti-inflammatory effect b-has anti-viral effect
c-is a triterpene saponin aglycone d-glucouronic acid is the sugar unit

17-This drug is contraindicated in hypotensive patient:

- a-russian liquorice b-couch grass c-veratrum d-ginger

18-Sweet edible rhizomes and roots without any bitterness are:

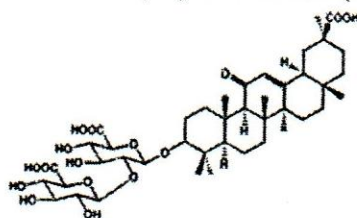
- a-Spanish liquorice b-veratrum c-Chinese Rhubarb d-aconite

19-Valerian contains as an iridoid

- a-valerianine b-isovaltrate c-valerenic acid d-hesperidin

The salt of this compound is found in (20) and it has (21) effect

- 20) a-ginger
b-liquorice
c-gentain
d-*Stephania tetrandra*



- 21) a-carminative
b-vasodilating
c-anti-viral
d-vermifuge

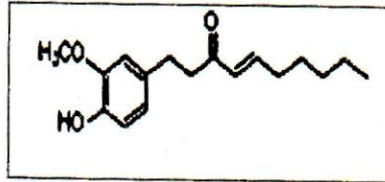
Harpagoside and (22) are iridoid glycosides. Devil' Claw is used in (23)

- 22) a-valerianine
b-acetin
c-hydrastine
d-gentiopicroin

- 23) a-osteoarthritis and tendonitis
b-post menopausal symptoms
c-chronic venous insufficiency
d-hormone sensitive conditions

This compound is (24). It is found in (25)

- 24) a-gingerol
b-shogaol
c-ferulic acid
d-meconic acid



- 25) a-filix-mas
b-colchicum
c-dried ginger
d-fermented gentain

Liquorice and (26) should not be used in (27) cancer.

- 26) a-hydrastis
b-ginger
c-black cohosh
d-aconite

- 27) a-liver
b-uterine
c-kidney
d-lung

28- Black cohosh contains and

- a-glabridin, liquiritin b-gentiopicroin, gentsin c-acetin, cimicifugoside
d-gingerols, zingiberene

29-Valerian is derived from Latin word means:

- a-angel b-like grapes c-to repel insects d-to be healthy

We could use(30) roots to treat insomnia and avoid (31) when we use this drug

- 30) a-*Stephania tetrandra*
b-butcher's broom
c-valerian
d-devil's claw

- 31) a-alcohol and sedative drugs
b-drugs with estrogen like effect
c-corticosteroid drugs
d-drugs with curare like effect

32- Tea of dandelion roots contains:

- a-taraxacin b-valerianine c-glycosidal resin d-mucilage

We could use (33) with vitamin C and (34) to treat chronic venous insufficiency

- 33) a-ginger
b-devil's claw
c-ginseng
d-butcher's broom

- 34) a-hesperidin
b-acetin
c-xanthotoxin
d-liquiritin

Harpagoside is the major constituent in (35) which is used in (36)

- 35) a- devil's claw
b-gentain
c-black cohosh
d-ipecacuanha

- 36) a-cardiac problems
b-liver diseases
c-inflammatory disease
d-anorexia

... (37)... as ruscogenin is found in ...(38)... roots

- 37) a-Cardiac glycoside
b-Triterpene saponin
c-Steroidal saponin
d-Alkaloid

- 38) a- butcher's broom
b- devil's claw
c-angelica
d-veratrum

Guaiaconic acid is found in (39) and gives blue color with (40):

- 39) a-colophony
b-guaiacum
c-gamboge
d-gum arabic

- 40) a-abietic acid
b-pimaric acid
c-oxidase enzyme
d- guaiaretic acid

Myrrh and frankincense are (41). They have (42) effect:

- 41) a-oleo-resin
b-dried juice
c-resin acid
d-oleo-gum-resin

- 42) a-hypotensive
b-cathartic
c-anti-microbial
d-hypnotic

Myrrh is used as (43), while olibanum contains (44):

- 43) a-antiseptic in mouth wash
b-anti-emetic in poisoning
c-muscle relaxant in hypertonia
d-skin lightening in melanoderma

- 44) a-commiphoric acid
b- galbaresinotannol
c-cinnamic acid
d- β -boswellic acid

Methylated glycano-galactouronan is (45). It is a part of (46):

- 45) a-aldobionic acid
b-agarose
c-mannotriose
d-bassorin

- 46) a-gamboge
b-podophyllin
c-gum tragacanth
d-asafetida

Aloin is found in (47). It is a constituent of (48):

- 47) a-schizogenous ducts
b-oil cells
c-laticiferous vessels
d-pericyclic cells

- 48) a-aloe of Cape
b-aloe of Socotrine
c-aloe of Curacao
d-catechu

CaCl_2 , HCl and FeCl_3 are used to identify (49), while solution of borax detects (50):

- 49) a-colophony resin
b-codiene
c-asafetida
d-meconic acid

- 50) a-umbelliferone
b-gelatin extract
c-barbaloin in aloe
d-agar extract

Resin with drastic purgative effect contains (51). This substance has (52) effect:

- 51) a-canadinolic acid
b-siarsinol benzoate
c-rhamnose
d-podophyllotoxin

- 52) a-anti-inflammatory
b-emetic
c-anti-stress
d-anti-cancer

Gum arabic is composed of (53). It is a good (54):

- | | |
|---|---|
| <p>53) a-arabic acid and oxidase enzyme
b-arabic acid and starch
c-boswellic acid and agarose
d-gambojic acid</p> | <p>54) a-antioxidant
b-anti-stress
c-stabilizing agent
d-animal repellent</p> |
|---|---|

Free umbelliferone is found in (55). Umbelliferone is produced by heating another unorganized drug with HCl and this drug contains (56):

- | | |
|--|---|
| <p>55) a-galbanum
b-olibanum
c-gamboge
d-balsam of Copaiba</p> | <p>56) a-gambojic acids
b- asaresinol ferulate
c-benzoresinol cinnamate
d-coumaric acid</p> |
|--|---|

Mucilage of marshmallow is used in (57), while aloetic juice has (58) effect:

- | | |
|---|---|
| <p>57) a-adhesive plasters
b-wound healing
c-ointment
d-soap industry</p> | <p>58) a-bitter stomachic
b-demulcent
c-purgative
d-nutritive</p> |
|---|---|

Aloe of Cape contains (59). Cape aloe could be distinguished from other types of aloes using (60):

- | | |
|---|--|
| <p>59) a-5-hydroxy aloin
b-7-hydroxy aloin
c-rhein
d-chrysophanol</p> | <p>60) a- HCl
b- HNO₃
c- BaCl₂
d- AgNO₃</p> |
|---|--|

Copaiba balsam has (61) effect due to (62) content:

- | | |
|--|--|
| <p>61) a-diaphoretic
b-CNS depressant
c- urinary antiseptic
d- healing</p> | <p>62) a-resinotannol cinnamate
b-volatile oil
c-fluorescent substance
d-gum</p> |
|--|--|

Curcumin is a (63), which is found in (64) rhizomes:

- | | |
|--|---|
| <p>63) a-coloring matter
b-volatile oil
c-flavonoid
d-disaccharide</p> | <p>64) a-couch grass
b-ginger
c-turmeric
d-angelica</p> |
|--|---|

Angelica could be used in treatment of (65) It mainly contains (66):

- | | |
|---|--|
| <p>65) a-bronchitis
b-stomach upset
c-hypertension
d-uterine cancer</p> | <p>66) a-diterpene alkaloids
b-disulphides
c-furanocoumarins
d-bitter principles</p> |
|---|--|

67. The double fertilization occurs at and of the ovule.

- a. Nucellus and polar nuclei
- b. Ovum and polar nuclei
- c. Synergidae and antipodal nuclei
- d. Polar and antipodal nuclei

68. Raphe is absent in case of ovule.

- a. Anatropus
- b. Amphitropus
- c. Sessile
- d. Linseed

69. Accumbent, incumbent, and orthoplocus are types of embryo.

- a. Bent
- b. Coiled
- c. Straight
- d. Curved

70. The use of linseed seeds for treatment of constipation is attributed to

- a. Fixed oil
- b. Linamarin
- c. Protein
- d. Mucilage

71. Cardamom seeds should be freshly separated from the fruit to guard against the

- a. Hydrolysis of essential oil
- b. Volatilization of essential oil
- c. Ripening of the seeds
- d. Deterioration of the seeds

72. Strophanthus seeds possess

- a. Awn outgrowth
- b. Glabrous surface
- c. Double seed coat
- d. Atropus ovule

73. K-strophanthin are mixture of

- a. Alkaloids
- b. Triterpenoids
- c. Cardiac glycosides
- d. Flavonoids

74. receptor is associated with the toxicity of nux-vomica seeds.

- a. Nicotinic
- b. Muscarinic
- c. Adrenergic
- d. Glycine

75. Mucilage content of mustard seeds presents in layer.

- a. Hypodermal
- b. Endosperm
- c. Epidermal
- d. Embryo

76. Sinigrin and sinalbin are examples of glycosides.

- a. Thio
- b. Cardiac
- c. Cyanogenic
- d. flavonoid

77. Colchicum and cardamom seeds show embryo.

- a. Two cotyledons
- b. Coiled
- c. One cotyledon
- d. Bent

78. seeds produce a benzaldehyde odor upon trituration with water.

- a. Black mustard
- b. White mustard
- c. Sweet almond
- d. Bitter almond

79. is characteristic for nutmeg seeds.

- a. Ruminant endosperm
- b. Absence of perisperm
- c. Unpleasant odor
- d. Absence of starch

80. Myristicin produces a hallucinogenic activity upon hydrolysis to derivative.

- a. Serotonin b. Amphetamine c. Amino acid d. Sugar

81. Fenugreek seed coat is devoid from

- a. Sclereids b. Parenchyma c. Hypoderm d. Palisade-like epiderm

82. The lactagogue effect of fenugreek seeds is attributed to

- a. Trigonelline b. Saponin glycoside c. Mucilage d. Diosgenin

83. Chocolate is produced from seeds.

- a. Cocoa b. Calabar c. Chia d. Quinoa

84. Carcerulus (e.g., Family Labiatae) is a schizocarpic fruit which splits to the number of carpels.

- a. Half b. Triple c. Equal d. Double

85. The absence of embryo in most of T. cut of Umbelliferous fruit is due to its

- a. Apical position
b. Small size
c. Basal position
d. Concealing by endosperm

86. The rough surface of anise fruit is due to the presence of

- a. Unbranched vittae b. Branched vittae c. Shaggy hair d. Conical hair

87. The total number of vittae in each mericarp of cumin is

- a. Numerous b. Six c. Two d. Four

88. An example of an Umbelliferous fruit that does not contain volatile oil is

- a. Fennel b. Colocynth c. *Ammi visnaga* d. Coriander

89. The young coriander mericarp has prominent primary than (as) secondary ridges.

- a. More b. Less c. Similarly d. Equally

90. The killer of Socrates is well known term for alkaloid.

- a. Strychnine b. Coniine c. Quinine d. Capsaicin

91. The toxicity of Colocynth fruit may result in

- a. Hypertension b. Respiratory arrest c. Bloody diarrhea d. Cardiac arrest

92. Vanilla pods should be carefully cured to

- a. Prevent glucovanillin hydrolysis
b. Induce vanillin liberation
c. Decrease side effect
d. Prevent its rancidity
-

93. The pungent principal in black pepper is

- a. Capsaicin b. Volatile oil c. Piperine alkaloid d. Terpenoid hydrocarbon

94. The tailed pepper is commonly used to describe

- a. Cubebs b. Long pepper c. White pepper d. Cranberry

95. Wheat germ oil is a rich source of vitamin

- a. B b. C c. D d. E

96. is the main constituent of star anise volatile oil.

- a. Cuminaldehyde b. Anethole c. Fenchone d. Terpinyl acetate

The questions (97-100) are to match the following diseases with the best herbal treatments from commercially available products containing herbal constituents or extracts (a – d)

97. Vitiligo and leukoderma	98. Flatulence	99. Liver and gallbladder complaints	100. Benign prostatic hyperplasia (BPH)
<p>a. <u>Prostamin[®] tablet</u></p> <ul style="list-style-type: none"> - Pumpkin seed extract - Nettle root extract - Saw Palmetto fruit extract - Pygeum africanum bark extract - Vitamin E - Vitamin B6 - Zinc 	<p>b. <u>Neo-Medanine[®] tablet</u></p> <ul style="list-style-type: none"> - Ammoidin 10 mg/ Tablet 	<p>c. <u>Carminex[®] syrup</u></p> <ul style="list-style-type: none"> - Caraway oil, - Cinnamon oil, and - Fennel oil 	<p>d. <u>Hepaticum[®] syrup</u></p> <ul style="list-style-type: none"> - Micronized silymarin 50mg/5mL

Best wishes