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|  | TANTA UNIVERSITY | | | |
| | FACULTY OF PHARMACY | | | |
| DEPARTMENT OF PHARMACOGNOSY | | | | |
| FINAL EXAM FOR PREPHARMACY STUDENTS | | | | |
| COURSE TITLE: | Medicinal plants | | COURSE CODE:1135 | |
| DATE: | 10/6/2019 | TERM: SECOND | TOTAL ASSESSMENT MARKS: 150 | TIME ALLOWED: 2 HOURS |

The exam consists of two parts in 8 pages.

- **Part I: Introduction of flowers, herbs and active constituents (Q I, II, III) pages 2-4.**
- **Part II: Medicinal flowers, barks and wood (Q IV is MCQs. The answer sheet is in page 8).**
- **All questions must be answered in the specified places using blue pen.**
- **Answers outside the specified places will not be considered.**

Question (I) Complete the following (48 points, 40 minutes)

1- The common characters of the solanaceous herbs are hair,
..... stomata andendodermis.

2-(i) and(ii) are solanaceous herbs,
they are identified by the fruit type, it is in (i)
andin (ii). Also CaOx is used for
identification, it isin (i) and
..... in (ii).

3- The English name for Indian hemp is It contains
.....,
while Indian tobacco is and
contains.....
.....

4- (a) Put the suitable reagent used for conversion of :



(b) Mention four types of alkaloidal precipitants:

- (i)..... (ii).....
- (iii)..... (iv).....

5- Give the name of the chemical test that used for the identity of the following glycosides:

- (i) Cardiac
- (ii) Phenolic
- (iii) Anthraquinone
- (iv) Saponins
- (v) Cyanogenic

Question (II) Define the following terms (14 points, 15 minutes)

a- Monochasium compound cymose inflorescence

.....
.....

It has two types which are:

- (i).....
- (ii).....

b- Volatile oil is

.....
.....,while fixed oil is

They are extracted from the plant by the use ofor

.....and they separated from each other by the

use of

which dissolved

Question (III)**(16 points, 15 minutes)****Draw the key elements for the given drugs in the statement****No 3 question No (I)**

| plant | Key elements |
|----------------|--------------|
| Indian hemp | |
| Indian tobacco | |

Question IV: Choose the best answer for the following and record your answer in the provided answer sheet in PAGE 8. (72 marks, 50 min)

- In figure (1) the arrow is for the(1)..... region of(2).....
a-Clove b-Petals c-Hypanthium d-Ovary e-Chamomile



Figure 1

- 3- Eugenol is tested by crystal formation after addition of KOH because it is a/an:**
a-Acid b-Ether c-Phenol d-Ester e-Aromatic

4- Promise is a tooth-paste of:

- a-Mother clove b-Clove flower buds c-Exhausted clove d-Clove stalks e-Clove petals

5- Phloem fibers with crystal sheath are key elements of:

- a-Mother clove b-Clove flower buds c-Exhausted clove d-Clove stalks e-Clove petals

- Clove oil may(6).... blood clotting and has drug interaction with(7)....:

- a-Stop b-Slow c-Enhance d-Phenobarbital e-Aspirin

8-Figure (2) is for an inflorescence containing:

- a-Nobilin b- Matricin c-Bisabolol d- Both (a) and (c) e-Both (b) and (c)

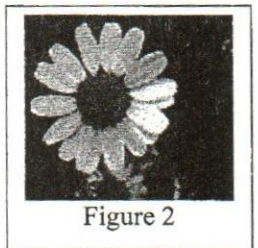


Figure 2

9-Gohnson's baby soap contains the oil of:

- a-*Chrysanthemum cinerarifolium* b-*Calendula officinalis*
c-*Matricaria chamomilla* d-*Artemisia cina* e-*Carthamus tinctorius*

10-It is avoided in hormone sensitive conditions as it might act like estrogen:

- a-*Anthemis nobilis* b-*Matricaria chamomilla*
c-*Calendula officinalis* d-*Artemisia cina* e-*Carthamus tinctorius*

11- Permethrin is:

- a-Pyrethrin I b-Pyrethrin II c-Caryophylline d-Chamzulene e-Synthetic pyrethroid

12-A powder of pyrethrum can be differentiated from chamomile by the presence of:

- a-Spiny pollen grains b-Twin hair c-Balanced hair d-Compositous hairs e-Cottony hair

13-Santonica is used as.....flower heads:

- a-Unexpanded b-Fully expanded c- More/less fully expanded d-ray florets e-Corolla

-Santonica is contraindicated with anticonvulsant due to its content of(14)..... which causes(15)....:

- a-Volatile oil b-Bitter principle c-Flavonoid d-Seizures e-Bleeding

16-Carthamin is present in:

- a-Saffron b-Safflower c-Calendula d-Clove e-Chamomile

17-The following is not true about heart wood:

- a-Has tyloses b-Medicinally active c-Living d-Both (a) and (b) e-Both (b) and (c)

-Trachieds (18), vessels (19) and fibers (20) of wood are:

- a- Mechanical support b-Single cells c-Medullary rays
d-Tubes formed by fusion of cells e-non-lignified

21-Figure (3) is a tangential L.S of:

- a-Jamica quassia b-Surinam quassia c-Yellow deal
d-White deal e-Guaiacum

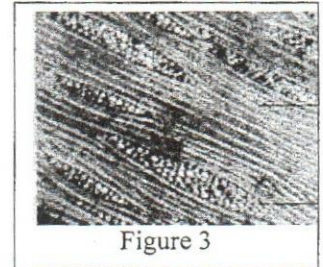


Figure 3

-Used for chronic gout (22), diuretic and stimulant (23), enema for threadworms (24):

- a-Jamica quassia b-Surinam quassia c-Yellow or white deal
d-Both (a) and (b) e-Guaiacum

25-Bark(s) that contain(s) bitter principles:

- a-Cascara b-Canella c-Cascarilla d-Both(a) and (c) e-Both (b) and (c)

26-Bark(s) that contain(s) eugenol:

- a-Cascara b-Canella c-Frangula d-Both(a) and (c) e-Both (b) and (c)

27-Cassia bark is preferred in people with ulcers due to:

- a-Low content of eugenol and high content of mucilage, tannins and phenyl propanoids
b-High content of eugenol and absence of mucilage, tannins and phenyl propanoids
c-High content of eugenol, mucilage, tannins and phenyl propanoids
d- Low content of eugenol, mucilage, tannins and phenyl propanoids
e-Content of bisabolol

28-A drink of cassia bark is differentiated from cinnamon drink by that cassia drink has:

- a-Sweet taste and high aromatic fragrance
b-Mucilaginous taste and high aromatic fragrance
c-Mucilaginous taste and weak aromatic fragrance d-Sweet taste and weak fragrance
e-Mucilaginous and astringent taste and weak aromatic fragrance

29-Diabetic people should follow up their glucose levels when drinking:

- a-Chamomile b-Lavander c-Cinnamon d-Both (a) and (b) e-Both (a) and (c)

30-Cinchona is avoided in people with stomach ulcers due to:

- a-High content of eugenol causing irritation b-Increasing the gastric secretion
c-No mucilage and tannin d-Both (a) and (b) e-Both (a) and (c)

31-Cascara and frangula barks:

- a-Should be stored for one year before use b-Contain anthraquinone glycosides
 c-Have agreeable taste d-Both (a) and (b) e- Both (a) and (c)

32-The fracture in quillaia bark is:

- a-Short b-Granular c-Fibrous d-Splintary e-no fracture

33-Promote(s) wound healing:

- a-St John's wart b-Yarrow c-Calendula d-Both (b) and (c) e-Each of (a), (b) and (c)

34-Treat(s) fever by casing sweating:

- a-St John's wart b-Yarrow c-Calendula d-Both (b) and (c) e-Each of (a), (b) and (c)

35-Helenalin, nobilin, matricin and parthenolide are:

- a-Alkaloids b-Volatile oils c-Sesquiterpene lactones d-Coloring matters e-Bitter principles

36-Quassin, artemisin, santonin and picrocrocin are:

- a-Alkaloids b-Volatile oils c-Sesquiterpene lactones d-Coloring matters e-Bitter principles

37-Eugenol, safranal, bisabolol and azulenes are:

- a-Alkaloids b-Volatile oils c-Sesquiterpene lactones d-Coloring matters e-Bitter principles

38-Carthamin, anthocyanin and crocin are:

- a-Alkaloids b-Volatile oils c-Sesquiterpene lactones d-Coloring matters e-Bitter principles

39-Feverfew is not indicated for pregnant women with migraine due to:

- a-Antidiabetic effect b-Stimulation of menstruation c-Stimulation of childbirth
 d-Both (a) and (b) e-Both (b) and (c)

-For 40-42 choose from List I; and for 43-46 choose from List II. Record your answer in the ANSWER SHEET.

- 40-Hawthorn
 41-Lavender
 42-Hibiscus
 43-Red poppy petals
 44-Salix
 45-Sage
 46-Red clover

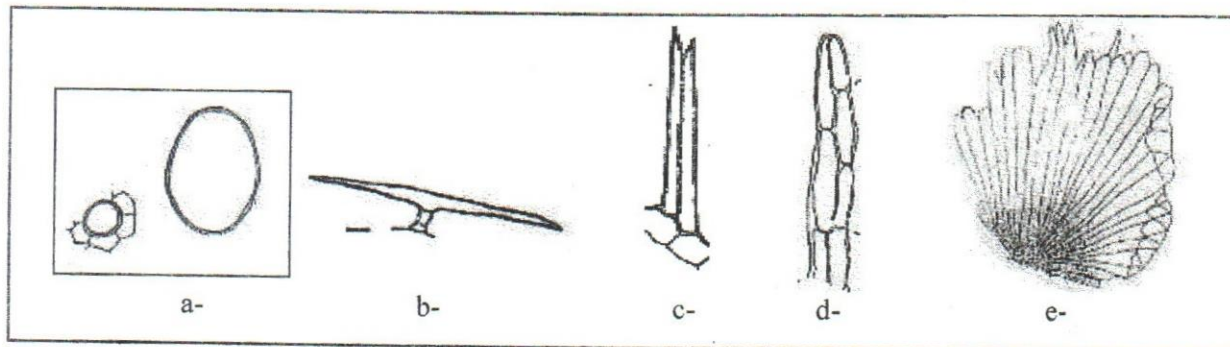
| List I | List II |
|------------------|-----------------------|
| a-Boost immunity | a-Blood regulator |
| b-Astringent | b-Aspirin-like action |
| c-Monoterpenoids | c-Bitter tonic |
| d-Hypertension | d-Blood purifier |
| e-Anthelmentic | e-No meconic acid |

- Match each sentence (47-48) with only one suitable drawing in **List III**

.....(47)..... is the key element of powder used as insecticidal for house flies.

.....(48)is the key element of powder used for healing of wounds and bruises.

List III



Answer sheet

| No | a | b | c | d | e | No | a | b | c | d | e |
|----|---|---|---|---|---|----|---|---|---|---|---|
| 1 | | | | | | 25 | | | | | |
| 2 | | | | | | 26 | | | | | |
| 3 | | | | | | 27 | | | | | |
| 4 | | | | | | 28 | | | | | |
| 5 | | | | | | 29 | | | | | |
| 6 | | | | | | 30 | | | | | |
| 7 | | | | | | 31 | | | | | |
| 8 | | | | | | 32 | | | | | |
| 9 | | | | | | 33 | | | | | |
| 10 | | | | | | 34 | | | | | |
| 11 | | | | | | 35 | | | | | |
| 12 | | | | | | 36 | | | | | |
| 13 | | | | | | 37 | | | | | |
| 14 | | | | | | 38 | | | | | |
| 15 | | | | | | 39 | | | | | |
| 16 | | | | | | 40 | | | | | |
| 17 | | | | | | 41 | | | | | |
| 18 | | | | | | 42 | | | | | |
| 19 | | | | | | 43 | | | | | |
| 20 | | | | | | 44 | | | | | |
| 21 | | | | | | 45 | | | | | |
| 22 | | | | | | 46 | | | | | |
| 23 | | | | | | 47 | | | | | |
| 24 | | | | | | 48 | | | | | |

Good Luck