
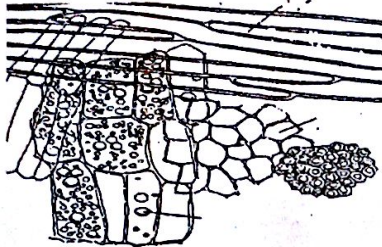
	TANTA UNIVERSITY FACULTY OF PHARMACY DEPARTMENT OF PHARMACOGNOSY					
	FINAL TERM EXAMINATION FOR SECOND YEAR CLINICAL STUDENTS					
	COURSE TITLE: Pharmacognosy-2		COURSE CODE: PG303			
	DATE: 03/01/2014	TERM: FIRST	TOTAL ASSESSMENT MARKS: 50	TIME ALLOWED: 2 HOURS		

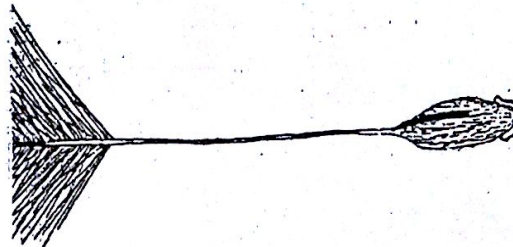
The exam booklet consists of 8 pages. Answers outside the specific spaces will NOT be considered.

PART I (Seeds & Fruits): (45 minutes) (20 marks)

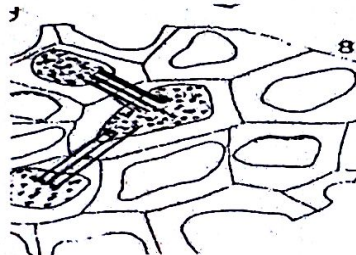
Question I: Fill in Table A with the answers of the following: (45 minutes) (20 marks)



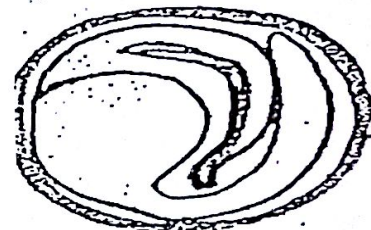
This is1.....
which presents in2.....



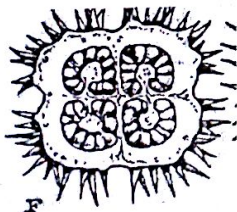
This seed is3.....
and the outgrowth is4.....



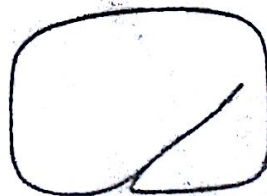
This key element is5.....
and presents in6.....



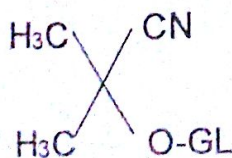
Type of embryo is7.....
example is8.....seeds



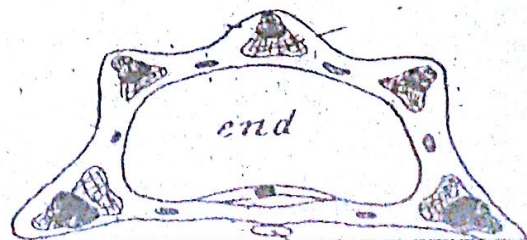
The type of fruit is9.....
Example10.....



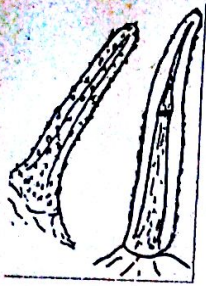
This is L.S. of11.....
Type of embryo is12.....



This is the structure of13.....
which presents in14.....



This is a T.S of15.....
which is a member of Family16.....



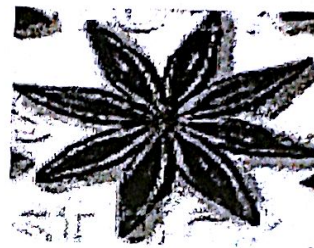
This is17.....
presents in18.....
which has another key element
.....19.....



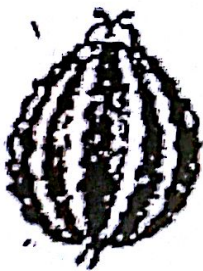
This is20.....
presents in21.....,22.....
,23..... and24.....



This is dorsal view of25.....
which is recently used as....26 ...



This is27.....
It contains mainly28.....



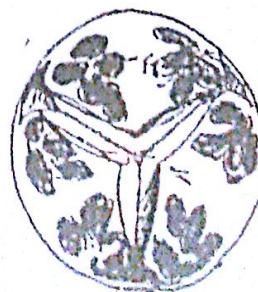
The poisoning symptoms from this
fruit are ...29..... and
.....30..... It contains alkaloids
named ...31.... and ...32...



This is33.....
The key elements of the powder are
....34....and35.....



This is a ...36.....
The fruit type is37.....
and main active constituent is
.....38.....



This is a T. cut in fruit named...39...
The toxicity of this fruit is due to an active
constituent named40.....

No	
1	
2	
3	
4	
5	
6	
7	
8	
9	
1	
1	
1	
1	
1	
1	
1	
1	
2	

Table A

No.	Answer	No.	Answer
1		21	
2		22	
3		23	
4		24	
5		25	
6		26	
7		27	
8		28	
9		29	
10		30	
11		31	
12		32	
13		33	
14		34	
15		35	
16		36	
17		37	
18		38	
19		39	
20		40	

Part II (Subterranean and Unorganized):**(75 minutes) (30 marks)****Question No. 1:****(15 minutes) (7.5 marks)**

Write the letter (T) to the correct answer, and the letter (F) to the false one correct the false one by putting line under the false word(s) and write the correct answer in the specific place in Table (1)

No.	The statements	Correct word	Letter
1	In <i>Rheum palmatum</i> , the star spots are larger and irregularly scattered in the pith.		
2	Figure No. 1 is the anomalous structure in <i>Ipecacuanha</i> .		
3	Liquorice is contraindicated in pregnant women, diabetics and those with high blood pressure.		
4	Figure No.2 is the T- cut in calumba roots.		
5	Podophyllum is used for the treatment of rheumatoid arthritis as a paint.		
6	Figure No. 3 is the main key element of male fern rhizome.		
7	Prolonged use of anthraquinones causes electrolyte imbalances with hyperkalemia.		
8	Figure No.4 is the key element of podophyllum.		
9	Both aconite and <i>Ipecacuanha</i> contain isoquinoline alkaloids.		
10	The bitter properties of the calumba are attributed to the herb's calumbin, and palmarin and, to some smaller degree, to the columbamine, jateorhizine and palmatine present in the herb.		
11	In <i>Ipomea purga</i> , the cells formed by 3ry cambium activity are phloem outside and xylem inside.		
12	Powder + HCl + KClO ₄ give red color this test is specific for aloe-emodin.		
13	Senegin II is a flavonoid glycosides used as stimulant expectorant in chronic bronchitis.		
14	The vascular bundles in American podophyllum are from 9-18 radially elongated.		
15	An example of monocotyledonous horizontal rhizomes is ginger which is used in treatment of motion sickness.		



Figure No.1

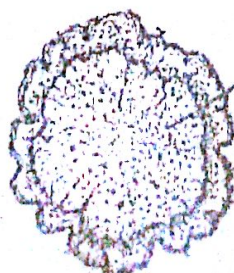


Figure No.2

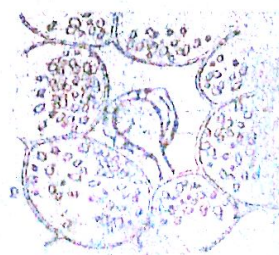


Figure No.3

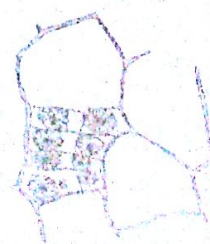




Figure No.4

Question No. 2:

(20 minutes) (8 marks)

Compare between each of the following Table (2):

Compared items	<i>American Podophyllum</i>	<i>Indian Podophyllum</i>
5% copper acetate solution		
Compared items	Aconite	Filix mas
Toxicity		
Compared items		
Part used		
Compared items	Fermented Gentian root	Unfermented Gentian root
Active constituents		
Compared items	Pale Catechu	Black Catechu
Test for differentiation		
Compared items	Agar	Gelatin
N/50 Iodine		
Compared items	Gum arabic	Gum tragacanth
Oxidase enzyme test		
Compared items	Manna	Cod liver oil
Uses		

arks)



This is the key element of
.....(17).....

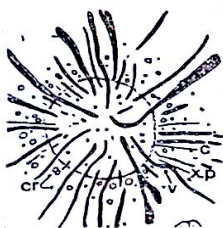
- When the T.S. is treated with ... (18)..... the walls of both the sclerenchymatous cells and vessels change from yellow to(19)....

- It is effective in preventing infections of the digestive system since(20).....



This is the key element of
.....(21).....

- It is used as.....(22)...



This is(23).....

- 10% Alc. furfural + dps. H_2SO_4 + little powder \rightarrow bluish-violet color, this test is specific for ... (24)....



- The active constituents of the opposite figure are.....(25).....

Chemical tests:

1-(26)...test:

Purified extract + $FeCl_3 \rightarrow$ (27).....

2-(28)..... + conc. $HNO_3 \rightarrow$ red color, then heat

\rightarrow Yellow color + ... (29).... \rightarrow violet color