

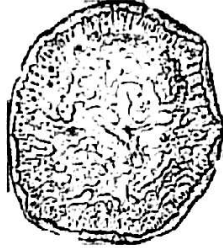

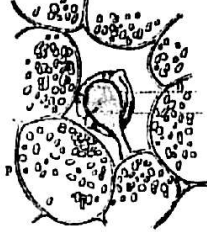
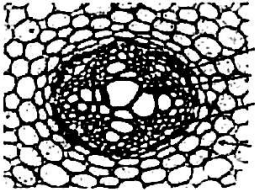
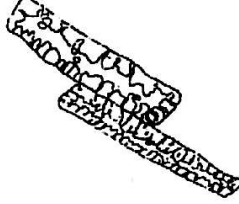
	TANTA UNIVERSITY FACULTY OF PHARMACY DEPARTMENT OF PHARMACOGNOSY			
	FINAL EXAM FOR SECOND YEAR CLINICAL STUDENTS			
COURSE TITLE:	Pharmacognosy 2		COURSE CODE: PG 303	
DATE: 5/1/2016	TERM: FIRST	TOTAL ASSESSMENT MARKS: 50	TIME ALLOWED: 2 HOURS	

The exam consists of 7 pages. All questions must be answered in the specified places using blue pen.

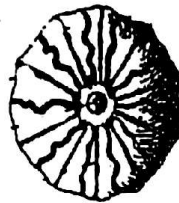
Question 1:

(60 minutes) (23 marks)

Complete the following statements and insert your answer in answer table (1) below:

 <p>- This is ... (1) ... which contains ... (2) ... as abnormal growth.</p>	 <p>- This is the abnormal growth of ... (3) ..., which is used as ... (4) ... due to the presence of ... (5) ...</p>
 <p>- This is the abnormal growth of ... (6) ..., the medullary rays contain ... (7) ... and its cambium differ from the ordinary cambium by ... (8)</p>	 <p>- The Plant contains this element is used as ... (9) ..., not taken with ... (10) ..., which may cause ... (11) ... but should taken with ... (12) ...</p>
 <p>- This is the T.S. of ... (13) ..., which is contraindicated with ... (14) ... because it causes ... (15) ...</p>	 <p>- This is the key element of ... (16) ... which may be used to ... (17) ...</p>

- The active constituents of *American podophyllum* differ from Indian one by the presence of ...(18)... which give with 5% copper acetate solution... (19)
- *Rhapontic rhubarb* is not used as ... (20) ... due to the presence of ...(21) ... which can be separated in ...(22) ... solution in the form of ...(23) ... crystals.



- This is the top view of(24)....
- The key elements of the powder are...(25)....and ...(26)....



- This is(27)....in(28)..... One of the recent uses of this fruit is...(29)...



- Borax test is the chemical test for ...(30)...
- Oupraloin test is for ...(31)...



- This an example of saccharine substances which is used as ...(32).... and its active constituents are...(33)..... and(34)...

- Star anise is used as herbal tea for treatments of ...(35)...., but it may cause...(36)...
- Cucurbitacin glycoside is present in(37)....fruit.
- A patient suffering from chronic constipation and will be subjected to surgery. He should use ...(38)..... to evacuate the colon before surgery.
- Mandalin's reagent is used for identification of ...(39)....→ violet color.
- ...(40)....is used in preparation of suppositories and capsules, while cod-liver oil is used in...(41)....
- Opium is the ...(42).... obtained by incision of the unripe capsule of ...(43)....., Family *Papaveraceae*.
- Chemical test for morphine: Acidic solution of opium extract + ...(44)....+ FeCl_3 → ...(45)...
- ...(46)....+ $\text{N}/50 \text{ I}_2$ → olive green color.

Table (1)

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

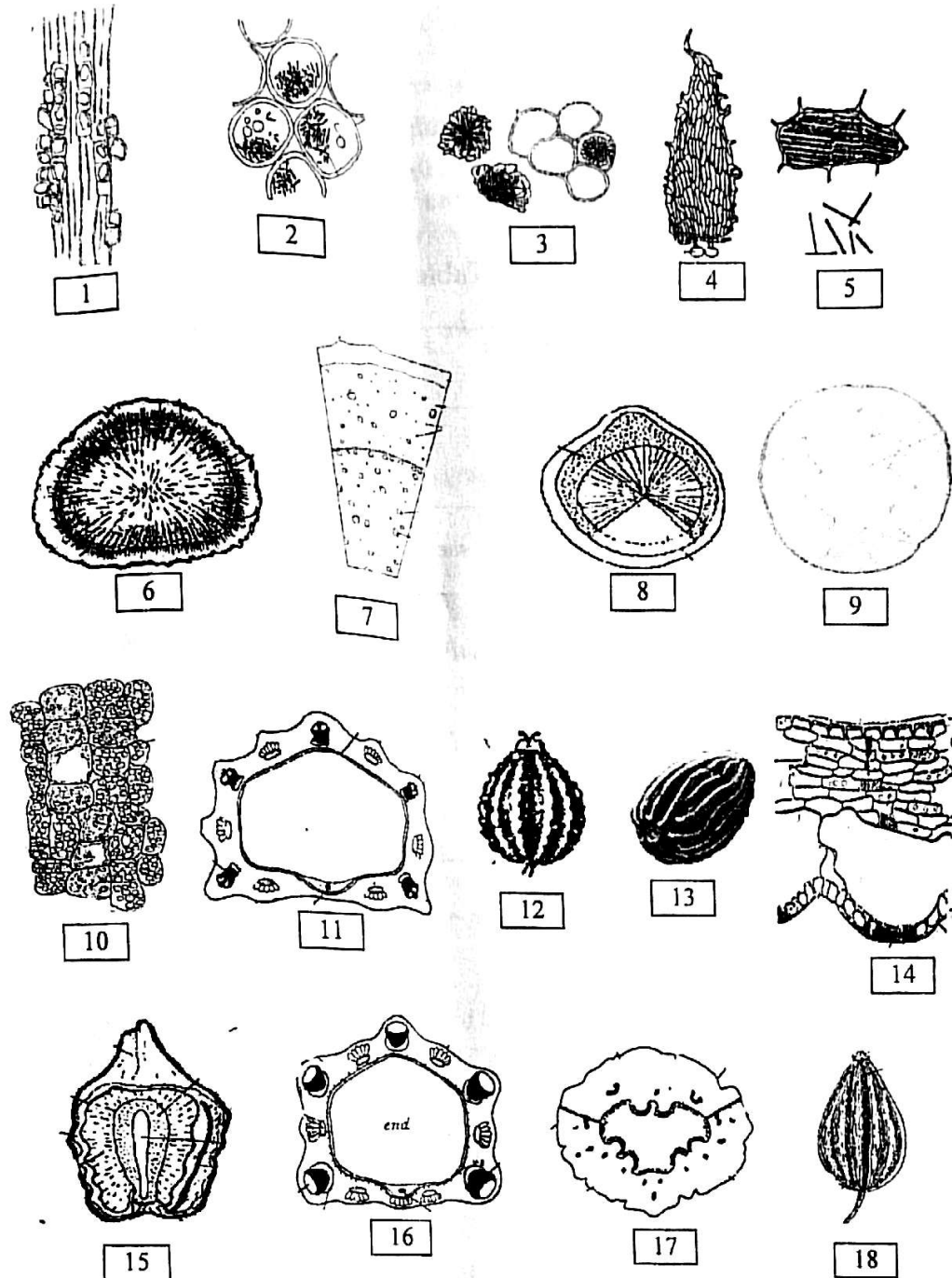
Question 2:

(12 marks) (25 minutes)

You are provided with the following (24) sentences, please match each sentence with **ONLY ONE** suitable **Drawing or Words** in page 5 and write the number corresponding to each sentence in the specified space in **Table (2)**:

Table (2)

Sentence	No.
Rhizome contains filmarone as active constituent.	
Rhizome give +ve result with 10 % Alc. fufural + dps. H ₂ SO ₄ + little powder	
Plant used in the treatment of rheumatoid arthritis.	
Root contains isoquinoline alkaloids and is used for the treatment of amoebic dysentery.	
Rhizome used for the treatment of warts.	
Root contains saponin glycosides and used in chronic bronchitis.	
Plant related to Family Menispermaceae .	
Bitter glycosides used as favorite bitter tonic.	
Root used in large doses as purgation (hydragogue cathartic).	
Plant used for treatment of neuralgia and rheumatism.	
The vascular bundles in <i>Podophyllum hexandrum</i> are.....	
A monocot rhizome.	
A T-cut in vanilla fruit.	
....is used as a source of omega fatty acids, available as capsules 1000 mg.	
The residue of aqueous extract of fruit + KOH (solid) → red color.	
Seeds have a psychotropic effect in case of toxicity.	
A seed has arillus outgrowth and prosenchyma epidermal cells.	
A fruit which traditionally used to treat minor pain in the joint.	
Branched vittae is the key element of	
The bitter principles in <i>Ammi majus</i> istype.	
A seed causes convulsion in large doses, death occur due to asphyxia.	
Purified extract + FeCl ₃ → Deep red color. This is the chemical test for.....	
Linamarin is ain linseed .	
When NaOH is added to an alcoholic extract ofthen shaken with pet. ether → green fluorescence in pet. ether will be formed.	



19) Cyanogenic glycoside	20) pale catechu
21) <i>Rheum palmatum</i>	22) 25-40 not radially elongated
23) morphine	24) black catechu
25) <i>Strychnos nux vomica</i> L.	26) <i>Linum usitatissimum</i> L.
27) <i>Rheum rhaponticum</i>	28) furanocoumarin
29) furanochromone	30) thioglycoside
31) 9-18 radially elongated	32) meconic acid

Question 3:

(35 minutes) (15 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 (3).

Table (3)

No.	The statements	Correct word	Letter
1	Aconite root does not contain cork.		
2	Rhubarb is related to family Leguminosae.		
3	Calumba is contraindicated in people suffering from gallstones.		
4	Russian liquorice taste is sweet but is not entirely free from bitterness or acidity.		
5	<i>Podophyllum peltatum</i> contains α and β -peltatin.		
6	In gentian the xylem is well developed but is formed mostly of parenchyma with scattered vessels in groups.		
7	The pungency of ginger is destroyed by boiling with 2% KOH solution.		
8	Glycyrrhizin on hydrolysis give glycyrrhizinic acid and 2 glucuronic acids.		
9	Senega gives after hydrolysis, with ferric chloride solution \rightarrow A reddish-violet color.		
10	Emetine is non-phenolic, isoquinoline alkaloid.		

11	To differentiate between cubebes and black pepper, we use 80% H ₂ SO ₄ . Cubebes gives red color, while black pepper gives crimson red with violet shade color.		
12	The type of seed in fennel, <i>Ammi majus</i> and <i>Ammi visnaga</i> is orthospermous seed, while in hemlock is a coelospermous seed.		
13	In fenugreek, trigonelline helps to lower blood sugar, while diosgenin has lactagogue activity.		
14	White mustard is contra-indicated for pregnant woman as it may cause a miscarriage.		
15	The recommended antidotes for colchicine toxicity include injection of solutions of dicobalt-EDTA or thiosulfates.		
16	A maple (double samara fruit) is an indehiscent simple dry fruit.		
17	Anethole and fenchone are the main active constituents in anise.		
18	Both mulberry and hops are composite serosis type of fruit.		
19	Hemlock can be used for adulteration of fennel. It can be detected using KOH → mice odor.		
20	Coriander, turmeric, red chilli, black pepper and cumin are digestive stimulant (enhanced the activities of pancreatic lipase, chymotrypsin and amylase when consumed during the diet).		

Good Luck