



## **October University for Modern Sciences & Arts Midterm Exam**

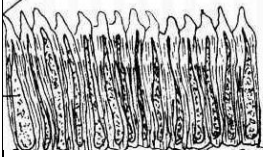
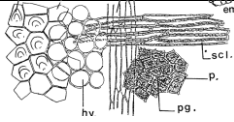
<b>Faculty</b>	<b>Pharmacy</b>
<b>Department</b>	<b>Pharmacognosy</b>
<b>Module Code</b>	<b>PHG 112</b>
<b>Module Title</b>	<b>Pharmacognosy</b>
<b>Semester</b>	<b>Fall 2023 (80)</b>
<b>Date</b>	<b>14/11/2023</b>
<b>Time Allowed</b>	<b>1 hour</b>
<b>Total Mark</b>	<b>30 Marks</b>
<b>No. of Pages</b>	<b>3</b>
<b>Material provided</b>	<b>-</b>
<b>Equipment permitted</b>	<b>-</b>
<b>Additional Instructions</b>	<b>All Answers must be in English otherwise it will not be considered.</b>

**No books, paper or electronic devices are permitted to be brought into the examination room other than those specified above.**

All questions should be answered. Illustrate your answer with a drawing whenever required.  
 The exam contains three pages. 30 Marks

Question 1: (15 marks)

Predict the shown spaces, then discuss the following questions: (12.5 marks/0.5 mark each)

	Plant name	Main active constituent	One use	Chemical test	One key element	Type of embryo
A	Psyllium	1	2	3	-----	-----
B	4	5	6	7		8
C	9	10	the oil is a powerful purgative (the seeds are toxic)	11	-----	-----
D	12	strychnine	13	14	15	16
E	17	18	19	20		21
F	22	23	cardiotonic	24	25	-----

- Referring to plants from (A to F), answer the following questions: (4.5 marks)

1-What do you suggest for the preparation of drug (A) in a pharmaceutical dosage form? (1 mark)

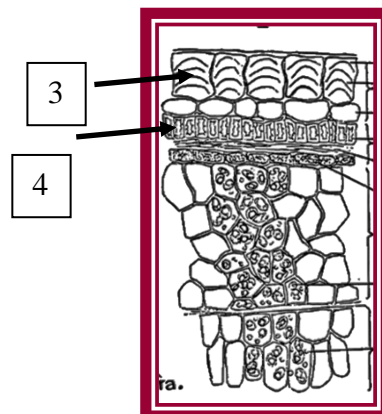
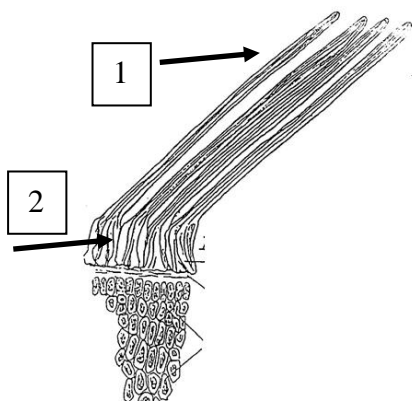
2-Explain the consequences that will happen if a pregnant female who is suffering from constipation used drug (B). (0.5 mark)

3-Justify for hard texture of the dried seeds of (D). (0.5 mark)

4-State in your own words two reasons of non-toxicity of drug (E). (1 mark)

5-I-The given transverse sections are correlated to which seeds from (A-F) (0.5 mark)

II- label numbers from (1-4) (1 mark)



**Question 2:**

Correct the underline word at each sentence by a suitable term: (5 marks/0.5 mark each)

Sentences	Corrected word
1- <u>In Anatropous ovule</u> , the whole ovule is bent upon itself instead of upon the funicle so that the funicle, chalaza and micropyle are all close to one another and no raphe is present e.g. Mustard seed	
2- <u>The raphe</u> is a basal swollen part of the nucellus from which arise the integuments & where the vascular strand from the funicle branches to enter different parts of ovule	
3- <u>Endosperm</u> is the root growing point	
4- <u>Nigella seed</u> is a seed with pigment layer devoid of coloring matter and sclereids which are much more even in height.	
5- <u>In Orthoplocus embryo</u> the radicle may be bent over or against one of the straight cotyledons e.g., Cannabis	
6- <u>Arillus</u> is the outgrowth of a seed used as cardiotoxic	
7- <u>The epidermis of linseed</u> is prolonged into long hairs showing 10 lignified ribs	
8- <u>Colchicum</u> is a hallucinogenic seed	
9- <u>Black mustard</u> can be used in gout	
10- <u>The main active constituent in nigella</u> is alkaloids	

**Question 3: Answer the following cases (6.5 marks)**

1-A 23 years old female suffering from nervous strain. (3 marks)

a-Select a seed to treat her case? (1 mark)

b-What is the main active constituents present in of the chosen drug? (1 mark)

c-How would you test for the chosen drugs? (1 mark)

2- A 21 years old male presents to the clinic suffering from severe pain in his joints. On physical examination, it was noticed that the patient has rheumatoid arthritis. A counter irritant drug was given to him. (2 marks)

a- Suggest a name of a drug that is likely to be efficient in the treatment regimen. (0.5 mark)

b-What is the main active constituent of this drug? (0.5 mark)

c- How would you test for this drug? (0.5 mark)

d- Choose a name of an alternative seed with the same use to your chosen drug. (0.5 mark)

3- Mr. Ahmed is a 48-year-old presented at the eye unit of a teaching hospital with a history of gradual, painless vision loss. On physical examination, he was diagnosed with glaucoma. (1.5 marks)

a-Select a name of a drug that is likely to be used in the treatment of this case. (1 mark)

b-What is the main active constituent of a drug that could be helpful in his case? (0.5 mark)

**Question 4: You are provided with 6 sentences, point out the odd word that doesn't coordinates with the corresponding mentioned parameter in each sentence. (1.5 marks/0.25 mark each)**

1-Linseed- Nux vomica- Black mustard

(straight embryo)

2- Black mustard -Linseed- Foenugreek

(mucilage in epidermis)

3- Psyllium-linseed-Nigella

(omega fatty acids)

4- Linsseed- Strophanthus- Nux vomica

(one seed coat)

5-Testa-Endosperm-Embryo

(kernal)

6- Nux vomica-Strophanthus -Colchicum

(outgrowth)

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End of questions

**October University for Modern Sciences and Arts  
Faculty of Pharmacy- Pharmacognosy department  
Midterm Exam – Fall 2023  
Course Coordinators: Assoc Prof Dr Eman Sherien,  
Dr. Ibrahim Ezz**

**PHG 112  
Pharmacognosy  
1 hour  
Date:14/11/2023**