



October University for Modern Sciences & Arts Midterm Exam

Faculty	Pharmacy
Department	Pharmacognosy
Module Code	PHG112
Module Title	Pharmacognosy
Semester	Spring 2023
Date	28-3-2023
Time Allowed	1 hour
Total Mark	30 marks
No. of Pages	3 Pages
Material provided	-
Equipment permitted	-
Additional Instructions	All Answers must be in English otherwise it will not be considered.

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

All questions are to be answered. The exam is located in THREE PAGES . Total marks= 30

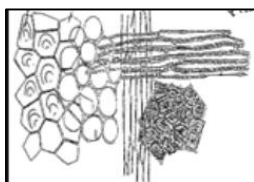
Question 1: (15 marks)

The following 10 sentences describe 5 medicinal plants, plant (A) is a seed with starchy perisperm, plant (B) is a glossy-brown seed with straight embryo, plant (C) is a spice seed with a pigment layer devoid of coloring matter, plant (D) is a rat poison seed, plant (E) is a seed used as a source of soluble dietary fiber.

Identify these plants, record 2 sentences number and one figure's letter (F-L) describing each plant at the given table (each space 0.5 mark) .

	Plant name	Sentence number	Figure's letter	Main active constituent	One use
A					
B					
C					
D					
E					

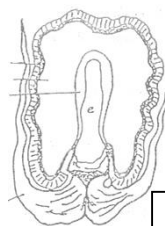
- 1-It has a hairy testa
- 2-It can be tested with Sudan III and iodine
- 3-It has a cordate embryo
- 4- It has arillus outgrowth
- 5-Its hypodermis formed of 2 layers of collenchyma
- 6-Its husk is indigestible and is a source of dietary fiber
- 7- It can be tested with sudan III and Guignard's paper test
- 8-It has pungent taste but not pungent odor
- 9-It can be used for diabetic patients
- 10-It is used in painting to speed up the drying of the oil



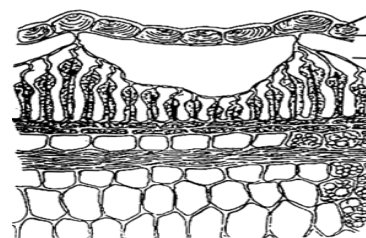
F



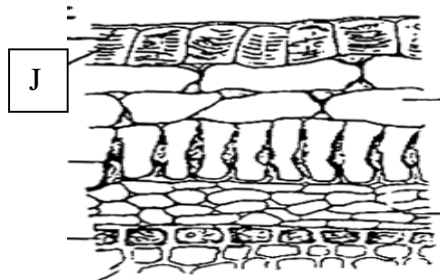
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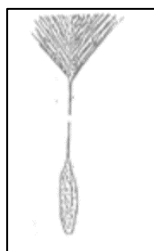
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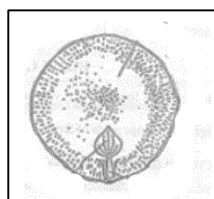
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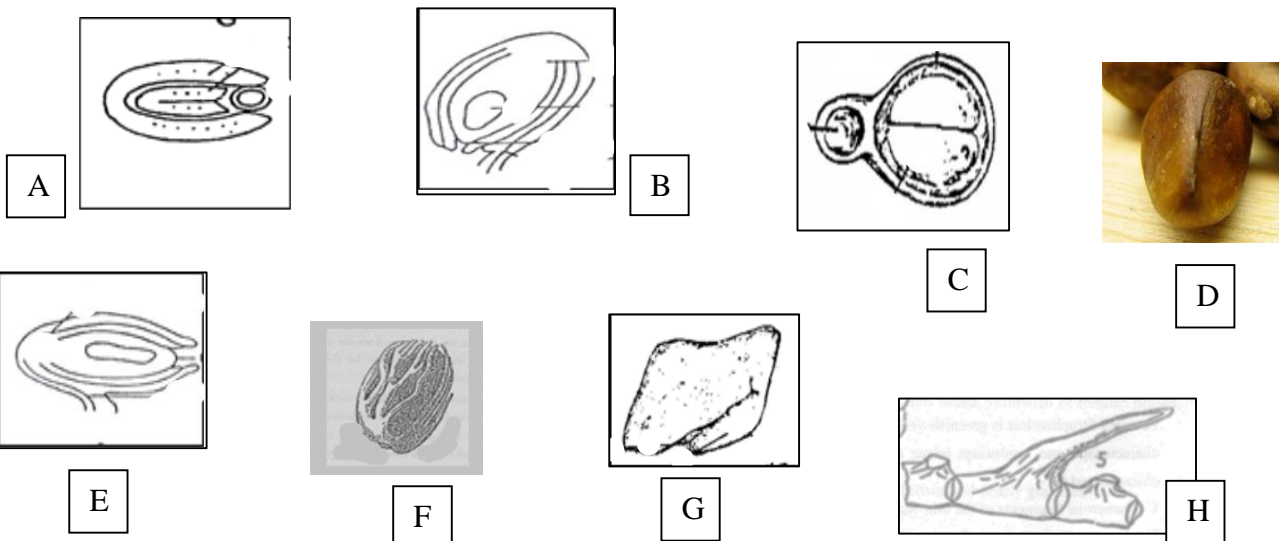


L

Question 2: (6 marks)

I-Correct the underline word at each sentence by a suitable term and match it by a corresponding figure titled (A-H), BLACK SPACES ARE NOT REQUIRED:

Sentences	Corrected word	Figure
1- In <u>amphitropous</u> ovule, the ovule is bent upon the funicle (180°) and fused with it so that the micropyle is near the placenta and the raphe runs from one end to the other.		
2-The <u>microphyle</u> is the scar left by the removal of the seed from its funicle or stalk		
3- <u>Testa</u> is the 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		
4- <u>Foenugreek</u> is an example of a typical albuminous seed		
5-In <u>Orthoplocus</u> embryo, the radicle may be bent against the two straight cotyledons i.e. against their edges		
6— <u>Wing</u> is the out growth of a seed used as antigout		
7-The epidermis of <u>Nux vomica</u> is prolonged into long hairs showing one lignified rib		



Question 3: Solve each of the following cases

(6 marks)

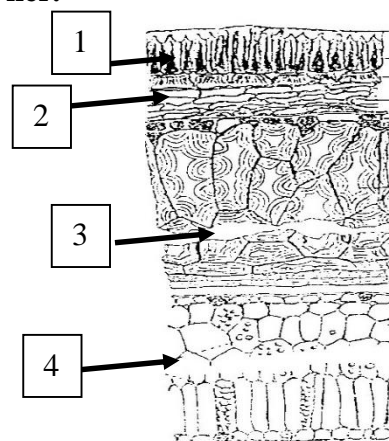
Case 1: A Patient comes into the emergency room in a state of extreme anxiety, expressing a fear that he is dying. His pulse is thread, rapid, and irregular with a rate of 150 beats/minutes. A probable diagnosis of heart failure and peripheral edema is established.

- 1-Suggest the name of a drug that is likely to be needed in the treatment? (1 mark)
- 2-What is the main active constituent of this drug? How can you test for this constituent? (one mark)

Case 2:

A 36 years old female is complaining of increased urine output, especially at night, and feeling thirsty. A random plasma glucose level test gave a value of 280 mg/dl. She was diagnosed as type 2 diabetes and the following seed was prescribed to her.

- 1-What is the name and the main active constituent of this seed? (1 mark)
- 2- Identify the labels (1-4) (1 mark)
- 3- do you suggest any contraindications using this seed ? (1 marks)



Case (3):

An 80 years old man has trouble remembering things that happened recently or names of people he knows, he has trouble in speaking, reading & writing . He was diagnosed to have dementia & memory loss (Alzheimer disease). What is the name and the main active constituent of the seed used to reduce these symptoms? (1 mark)

Question 4: Circle the odd word out to which the mentioned parameter DOES NOT APPLY. (3 marks, 0.5 mark each)

- 1-Linseed- Foenugreek- Black mustard
- 2-Cardamom-Linseed-Nux vomica
- 3- Psyllium-Black mustard- Castor seed
- 4-Linseed-White mustard- Foenugreek
- 5-Nigella-Cardamom-Colchicum
- 6- Nux vomica- Pumpkin seed –Castor seed

- (Test with Ruthenium Red)
- (Raphe)
- (Topical use)
- (Glycosides)
- (Contains volatile oil)
- (Toxic seed)

End of questions