

KATHMANDU UNIVERSITY
End Semester Examination
February/March, 2018

Marks Scored:

Level : B. Pharm.
Year : II

Course : PHAR 204
Semester: I

Exam Roll No.:

Time: 30 mins.

F. M. : 20

Registration No.:

Date : MAR 18 2018

SECTION "A"

[20 marks]

Tick (✓) the most appropriate answer

- The power of dravyam to manifest work in its unique way in Ayurveda is
a. Veeryam b. Vipaka c. Guna d. Prabhava
- The simultaneous administration of different substances would create a synergetic effect that is more than the sum of the individual effects of all the single substances
a. The similarity rule b. The rule of inversion
c. Burgis' principle d. Paracelsus' rule
- Choose an exact information about historical development of Pharmacognosy with the relevant publication
a. 16th Century, Otto Brunfels, *Herbarum Vivae Eicones*
b. 17th Century, John Ray, *A new Herball*
c. 18th Century, Seydler, *Analecta Pharmacognostica*
d. 19th Century, Carl Linnaeus, *Systema Naturae*
- Closed type vascular bundles and Sclerenchymatous hypodermis is typical anatomical character of
a. Monocot stem b. Dicot stem c. Monocot root d. Dicot root
- Find a group of drugs classified on the basis of similar Pharmacological uses
a. Digitalis, Eucalyptus, Vasaka b. Bee wax, Cinnamon, Ergot
c. Mentha, Calamus, Aloe d. Taxux, Vanica, Podophyllum
- The true statement on bio-fertilizers which are used to promote their growth
a. Free living algae make a symbiotic association with roots of plants and soil.
b. Anabaena, Nostoc and Spirulina are free living Cynobacteria which fix the nitrogen to soil.
c. Manure, sewage sludge, and mustard seed cake are strong biofertilizers.
d. *Azospirillum*, *Phosphobacteria* and *Mycorrhiza* are best fungi for symbiosis.
- Which test is suitable for detection of plant Tannins and Polyphenols
a. FeCl₃ solution and Potassium dichromate solution
b. Mayer's reagent and FeCl₃ solution
c. Sodium picrate slution and Alkaline reagent test
d. Conc. H₂SO₄ and Potassium dichromate solution

8. A group of crude drugs which consist of rosettes shaped Calcium Oxalate Crystals is
 a. Cinnamon, gentian, Rauwolfia b. Hyoscyamus, Senna, Cascara
 c. Squilla, Ipecac, Quassia d. Stramonium, Senna, Cascara
9. Find an appropriate guideline about the WHO guide lines of the standardization of Herbal raw materials and finished products.
 a. Radioactive contaminations of the plant samples should be checked accordingly to the guidelines of International Atomic Energy (IAE) that of WHO.
 b. *Escherichia coli* in the finished herbal product should not be more than 10^4 .
 c. Total organic chloride and total organic phosphorous should be analyzed to find out heavy metals in raw materials.
 d. Swelling index unit should be analyzed by quinone hydrochloride test.
10. An antimicrobial compound from marine sources of crude drug is
 a. Aeroplysinin-1 from Asbestos
 b. Gallic acid from marine fish
 c. Quinine from *Agelas oroides*
 d. Tetrabromoheptanone from *Dictyopteris zonaroides*
11. A tropical medicinal plant which can be propagated by stolons or suckers is
 a. Mentha b. Lemongrass c. Clove d. Ginger
12. Find the an incorrect statement about the plant balsamic or pulp products
 a. Storax is a pulp which is given as strong digestive agent in Ayurveda
 b. *Myroxylon balsamum* is used as an anti-septic dressing for wounds
 c. Sumatra Benzoin is a pathological product
 d. 3 lines of tapping and incisions is made in Benzoin
13. Which oil is posses excellent property on Nourishing effect on hair cuticles and controls hair fall
 a. Olive oil b. Almond oil c. Coconut oil d. Linseed oil
14. The highest percentage of mono and unsaturated fatty acids of 18-Carbon chain is found in
 a. Ricinus oil b. Linseed oil c. Coconut oil d. Sesame oil
15. Agarose component of Agar is linear molecule consisting of chains of repeating alternate units of
 a. β -1,4-linked- D-galactose and α -1,4-linked 3,6-anhydro-L-glucose.
 b. β -1,3-linked- D-galactose and α -1,3-linked 3,6-anhydro-L-glucose.
 c. β -1,3-linked- D-galactose and α -1,3-linked 3,6-anhydro-L-galactose.
 d. β -1,3-linked- D-galactose and α -1,4-linked 3,6-anhydro-L-galactose.

16. Compare the correct answer

A. Bulk Laxative	() Gum acacia
B. Digestive	() Olive oil
C. Against respiratory tract	() Fennel oil
D. Demulscant	() Eucalyptus oil
E. Antioxidant	() Agar

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SECTION "B"

[5Q.×3=15 marks]

Attempt *ANY FIVE* questions:

1. Explain the plant tissue culture as a source of herbal drugs.
2. Compare the basic principle of Ayurveda with Unani.
3. Write short account on carbohydrates as a pharmaceutical aid.
4. Mention the biological source and medicinal uses of Linseed oil and Castor oil.
5. What is the main role of Auxin in cultivation of medicinal plants ?
6. Point out the anatomical significance of plant monocot and dicot stem.
7. Compare the chemical composition of Fennel and Camphor essential oils.

SECTION "C"

[5Q.×5=25 marks]

Attempt *ANY FIVE* questions.

8. Explain the laxative drugs from plant sources.
9. Give the general account on chemistry of fixed oils. Explain at least two oils which are rich in unsaturated fatty acids.
10. Explain the collection of some balsamic products and their medicinal values.
11. Write an account on the cultivation, collection and preparation of Mentha.
12. Explain the few drugs from Animal sources.
13. Explain the collection and preparation techniques of root-rhizome herbal medicine.
14. Classify the vegetable drugs with suitable example.

SECTION "D"

[2Q.×7.5=15 marks]

Attempt *ANY TWO* questions.

15. Write down the biological sources of essential oil bearing leaf drugs with detailed chemical composition and medicinal uses.
16. Explain the quality control methods of medicinal plants and their finished products.
17. Explain the historical development of Pharmacognosy in detailed.

