

09-06-2018

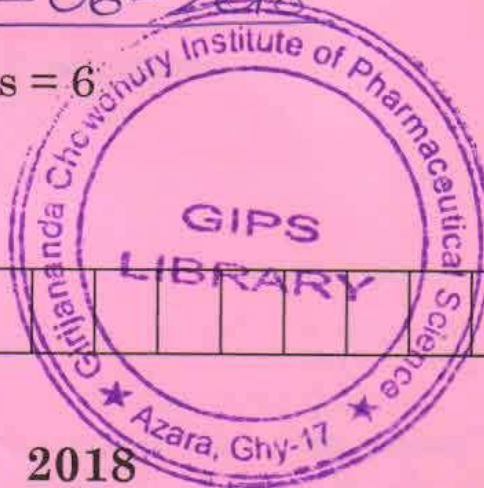
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PY 132806

Roll No. of candidate

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2018



**B.Pharm. 8th Semester End-Term Examination**

**PHARMACOGNOSY – VI  
[INDUSTRIAL PHARMACOGNOSY]**

Full Marks – 100

Time – Three hours

The figures in the margin indicate full marks  
for the questions.

Answer Question No. 1 and any *six* from the rest.

1. Answer the following questions (Any *ten*) :

(10 × 1 = 10)

- (a) Deficiency of sulphur in culture medium in plant tissue culture cause
- (i) Cessation of cell division
  - (ii) Chlorosis
  - (iii) Retardation of cell elongation
  - (iv) None of above
- (b) Inulin obtained from
- (i) Chicory
  - (ii) Oats
  - (iii) Barley
  - (iv) Brown rice

[Turn over

(c) The most common used carbon source in plant tissue culture media for the growth of monocotyledonous plant is

- (i) Sucrose
- (ii) Glucose
- (iii) Fructose
- (iv) None of the above

(d) Name one aromatic substance used for the synthesis of Vitamin A.

(e) Which cytokinin influence the induction of shoot buds \_\_\_\_\_.

- (i) 6 benzyl amino purine
- (ii) naphthoxy acetic acid
- (iii) 6 furfuryl amino purine
- (iv) benzyl furfuryl amino purine

(f) Synthetically occurring cytokinins are

- (i) Zeatin and 2 ip
- (ii) IBA and 2 4D
- (iii) 6 benzyl adenine and kinetin
- (iv) (i) and (ii)

(g) The primary air pollutant responsible for acid rain is

- (i) Carbon dioxide
- (ii) Sulphur di oxide
- (iii) Carbon monoxide
- (iv) Ozone

(h) Green house effect is due to

(i) Penetrability of low wavelength radiations through  $O_3$  layer

(ii) Impermeability of long wavelength radiations through  $CO_2$  of the atmosphere

(iii) Penetrability of low wavelength radiations through  $CO_2$

(iv) Impermeability of long wavelength radiations through  $O_3$  layer

(i) Chlorofluorocarbon releases a chemical harmful to ozone is

(i) Chlorine

(ii) Fluorine

(iii) Sulphur di oxide

(iv) Nitrogen peroxide

(j) Hedonic mechanism means

(i) Influence on behavior of the pleasure or displeasure linked to an odour

(ii) Memory linked to odour and exceptionally emotional situation

(iii) Both above statements are true

(iv) None of the above

2. (a) Classify medicinal plant based industry.

(b) Write down the details isolation procedure and utilization of calcium sennosides and diosgenin.

(c) Write short note on tropane alkaloids.

(2+4+3+6)

3. (a) Discuss details isolation procedure of volatile oil.

(b) Classify terpenoids with examples.

(c) What will happen after applying turpentine locally on painful area?

(d) What do you mean by semantic mechanism?

(e) How waste material from essential oil industry is utilized? (6+3+2+2+2)

4. (a) Explain the meaning of global warming.

(b) What do you mean by air pollutant?

(c) Define sewage.

(d) How does surface water get polluted?

(e) Briefly discuss the methods of solid waste management. (2+2+1+4+ 6)

5. (a) Explain the regulation regarding the use of Herbs as Health food.

(b) Explain the Mechanism of prebiotic and probiotics.

(c) Write down the proper definition of cosmeceuticals.

(d) Write down the use of alpha hydroxyl acid and co-enzyme in cosmetic preparation.

(e) Briefly discussed on some herbs consider as health food as well as cosmeceuticals. (Utilization of herbs discuss separately).

(2+3+2+2+6)

6. (a) Briefly explain the sterilization process of culture media in PTC.

(b) What are explants? How do sterilize explants?

(c) Write short note on hairy root culture.

(d) What are the benefits of plant tissue culture over conventional plant breeding? (2+1+2+4+6)

7. (a) Explain root culture with neat diagram.

(b) Enumerate the effects of plant hormones used in artificial plant tissue culture medium for the production of secondary metabolites with examples.

(c) Explain the general features of a BOD incubator.

(d) How do you isolated protoplast from cell?

(5+6+2+2)

8. (a) What is the use of  $H_2SO_4$  in the production of quinine sulphate?

(b) What are the other uses of cinchona except anti-malarial drug?

(c) Give some marketed preparation of atropine.

(d) Give biological source of lemon grass oil, vetiver oil, sandal wood oil and podophyllotoxin.

(e) Give some examples of essential oil which used as bronchodilator and antiseptic. (2+1+1+8+3)

9. Explain the principle of chemotaxonomy. Briefly discuss the chemotaxonomy of glycosides and alkaloids. (2+6.5+6.5)

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