Q.P. Code :32294

[Time: Three Hours] **[Marks:70]**

Please check whether you have got the right question paper.

N.B: 1. All questions are compulsory.
2. Illustrate answer with sketches and structures wherever required.
3. Answer to sub-questions must be written together.

Q.1 a) Correct the statements if required & justify all the statements with significant reasons or examples. 07

i) Agar is an example of dried latex.
ii) Altitude is an important parameter affecting cultivation of medicinal plants.
iii) Aleurone grains are found in collenchyma cells.
iv) Flavonoids are biosynthesized via shikimic acid pathway.
v) Hexane is the solvent of choice in microwave-assisted extraction of crude drugs.
vi) Lycopodium spore method is applied for identification of calcium oxalate crystals.
vii) Flax is a lignocellulose fibre.

b) Answer briefly: 08

i) Give the morphological and histological differences between allied species of brahmi.
ii) Give two examples of lipid-based drugs with structures of relevant phytoconstituents & applications.
iii) Give source, preparation & uses of malt.
iv) Give source, preparation & uses of serratiopeptidase.

Q.2 i) Discuss the significance of pharmacognosy in modern day medicine. 03
ii) With the help of suitable illustrations, explain the morphological & histological features of a typical dorsiventral leaf. 04
iii) Write a detailed note on alginic acid and its derivatives. 04

Q.3 i) Explain supercritical fluid extraction with suitable examples. 03
ii) Write a note on physical methods of evaluation of crude drugs. 04
iii) Compare & contrast absorbent & non-absorbent cotton. 04

Q.4 i) Write a note on morphological method of classification of crude drugs. Give its merits & demerits. 03
ii) With the help of suitable examples, explain the role of collection in maintaining quality of crude drugs. 04
iii) Outline the general method of extraction of glycosides & tannins. Explain the principle involved therin. 04

Q.5	i)	Give source, constituents & commercial utility of acacia & isapgol.	03
	ii)	Give detailed biosynthetic pathway with structures, for steroids.	04
	iii)	With respect to WHO guidelines, explain the relevance of any 2 microbiological tests for quality control of DONO.	04
Q.6	i)	Give sources, preparation & uses of protein hydrosates & pepsin.	03
	ii)	Write a note on subterranean stem modifications.	04
	iii)	Write a note on micro propagation of plants.	04