Registration No: | | | | | | | | | | |

Total number of pages: 01 **B. Pharm.**

PH.3.7

3rd Semester Back Examination 2017-18

PHARMACOGNOSY - III

BRANCH: B.Pharma

Time: 3 Hours

Max Marks: 70

Q CODE: B1049

Answer question No. 1 which is compulsory and any five from the rest.

The figures in the right hand margin indicate marks.

Q1 **Objective type questions** **(2 x 10)**

i) What isBrontrager test?

ii) Define the termstotipotency and callus tissue.

iii) Distinguish between cardenoloides and bufadienolides.

iv) Write down the biological sources of diastase and papain.

v) Draw the structures of shikimic acid and phenyl alanine.

vi) Write down the chemical constituents of senega and sarsaparilla.

vii) Write down the biological source, chemical constituents and uses of red squill.

viii) How will you qualitatively detect saponin glycosides?

ix) How will you detect cell viability in a plant cell suspension culture?

x) Write down the biological source and chemical constituents of gentian.

Q2 Define and classify plant tissue culture.Write an account on the applications of plant tissue culture as a source of drug molecules. **(10)**

Q3 Schematically explain the biosynthesis of tropane alkaloids and steroidal glycosides. **(5 x 2 =10)**

Q4 Write down the biological sources, chemical constituents and uses of ginseng, psoralea, rhubarb and saffron. **(2.5 x 4 = 10)**

Q5 **a)** Describe schematically the 'Sta-Otto' method of isolation of glycosides. **(5)**

b) Write down the principle behind the radio-active tracer technique for investigating biosynthetic pathways. **(5)**

Q6 **a)** Explain the morphological and microscopic features of digitalis leaf with the neat sketches. **(5)**

b) Describe the methods of cultivation and collection of aloe. **(5)**

Q7 **a)** Write a note on poisonous plants of India. **(5)**

b) Give an account on marine drugs with special emphasis on cytotoxic and cardio-protective agents. **(5)**

Q8 **a)** Mention different types of cell suspension culture with suitable explanation. **(5)**

b) Write down the pharmacognostic profile of strophanthus. **(5)**