



**NBW-003-014404** Seat No. \_\_\_\_\_

**M. Sc. (Sem. IV) (CBCS) Examination**

**April / May - 2017**

**Botany : B - 422**

*(Herbal Technology - II) (Elective)*

**Faculty Code : 003**

**Subject Code : 014404**

Time :  $2\frac{1}{2}$  Hours]

[Total Marks : 70

- 1 Answer the following : (any seven) **2×7=14**
- (a) What is raw material standardization ?
  - (b) What are glycosides ?
  - (c) What is the treatment for urolithiasis ?
  - (d) What is plesthymometer ?
  - (e) What is identification test for caffeine and cucurmine ?
  - (f) What is chemical classification ?
  - (g) Name some green extraction techniques.
  - (h) Name different types of reactive oxygen species.
  - (i) Describe briefly isolation of solanine from potato.
  - (j) What is pesticide ? What are the characteristics of a good pesticide ?
- 2 Answer the following : (any two) **2×7=14**
- (a) What are secondary metabolites ? Describe the extraction method of alkaloids from medicinal plants. Add a note on their classification.
  - (b) What is pharmacological classification ? Describe with suitable examples.
  - (c) Distinguish between tannins and saponins. Describe the properties of any one.

- 3** Answer the following : **2×7=14**
- (a) What is the difference between MIC and MBC ? Describe how antimicrobial activity of methanol extract of *T. natans* performed ?
  - (b) What is FRAP ? Describe the procedure and standard used in it.

**OR**

- 3** Answer the following : **2×7=14**
- (a) What is urolithiasis ? Describe how antiurolithiatic activity is evaluated in animal models.
  - (b) What does IC<sub>50</sub> value indicate ? Describe botanical name and family of four plants showing antioxidant activity. Name some synthetic antioxidants.
- 4** Answer the following : **2×7=14**
- (a) How total phenols and flavonoid content is estimated from plant extracts ?
  - (b) Describe the difference between ethanol induced and ethanol +HCl induced model of ulcer
- 5** Write short notes on any two of the following : **2×7=14**
- (a) Carrageenan induced paw edema in rats
  - (b) Method of qualitative analysis of medicinal plant extracts
  - (c) ABTS activity
  - (d) Histamine induced paw edema in rats.