



**HCO-003-047504** Seat No. \_\_\_\_\_

**B. Voc. - Pharm. Analysis & QA  
(Sem -V) (CBCS) Examination**

**October – 2017**

**BVPAQA - 504 : Chemistry of Natural Products**

**Faculty Code : 003**

**Subject Code : 047504**

Time : 3 Hours]

[Total Marks : 70

- Instructions :**
- (1) All Questions are compulsory and carry Equal marks.
  - (2) Draw diagram and/or scheme wherever necessary.

**1 (A) Answer the following questions. 10**

- (1) Define the term Natural products.
- (2) What is steroid?
- (3) What are true alkaloids?
- (4) Fill the blank: Taxol is \_\_\_\_\_ drug.
- (5) Progesterone is a male sex hormone.  
(True/False)
- (6) Write any two color test for steroid.
- (7) Fill the blank: Terpene is \_\_\_\_\_ oil.
- (8) Di Terpene contains three isoprene units.  
(True/False)
- (9) Which plant contains alkaloid in all parts?
- (10) Deficiency of vitamin C can cause \_\_\_\_\_  
diseases.

**(B) Answer the following questions. 20**

- (1) Exemplify milestone structure in Natural Products (Any 4 examples)
- (2) Enlist different steps involved in biological screening of sample.
- (3) Enlist various isolation methods.
- (4) Briefly explain percolation process for extraction.
- (5) Draw backbone structure of steroid with numbering.
- (6) Write the test to determine the presence of in plant material.
- (7) Explain in brief: Provitamins.
- (8) Give only names of various extraction methods.
- (9) Name the source of vitamin A. Enlist effects caused due to deficiency of vitamin A
- (10) Which reagents give color test with steroid?

**2 Answer any 4 out of the following 6 questions. 20**

- (1) Describe classification of terpenoids.
- (2) Derive Isoprene rule with examples.
- (3) Explain the procedure to find lead molecules from natural product.
- (4) Write a detailed note on primary metabolite and secondary metabolite.
- (5) Write a brief note on Bioactivity with examples.
- (6) Explain soxhlet extraction method with diagram

**3** Answer any 4 out of the following 6 questions. **20**

- (1) Write a brief note on opium alkaloids.
  - (2) Classify alkaloid according to its chemical structure.
  - (3) Discuss in detail: Extraction method of alkaloid.
  - (4) Give detailed classification of vitamin.
  - (5) Differentiate between water soluble vitamins and fat soluble vitamins.
  - (6) Explain the method to extract steroid from natural product with chart.
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