

GOVT. V.Y.T. P.G. AUTONOMOUS COLLEGE, DURG
INTERNAL EXAMINATION (2025)
CLASS-BCA-IV SEMESTER (DSC)
COURSE CODE – BCA -403
Subject- Data Structure

Note: Section 'A' & 'B' containing 1 very short-answer-type questions, is compulsory. Section 'C' consists of short answer type questions and Section 'D' consists of long answer type questions.
MAX MARKS - 20

Section - 'A'

Answer the following very short-answer-type questions in 4 to 5 sentences: (1×2=2)

Q.1 Write any two applications of Stack?

Section - 'B'

Answer the following very short-answer-type questions in 4 to 5 sentences: (1×2=2)

Q.2 What is Queue?

Section - 'C'

Answer the following long answer type questions in word limit 250-300: (1×6=6)

Q.3 Write and explain an algorithm to insert a node in the beginning of the linked list.

OR

What is Stack ? Convert the following expression into postfix: $(a + b) * (c - d)$.

Section - 'D'

Answer the following long-answer-type questions with word limit 300-350: (1×10=10)

Q.4 Write an algorithm to convert infix expression to prefix expression and also explain with example.

OR

What is Circular Queue? Write and explain algorithm to insert an element in circular queue.