Dr G.J Singh

Roll No:.....

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

MID TERM EXAMINATION, SUMMER SEMESTER - JUNE 2018

B. Tech.-VI Semester

COURSE CODE: 10B11CE615 MAX. MARKS: 50

COURSE NAME: ADVANCED STRUCTURAL ANALYSIS

COURSE CREDITS: 04 MAX. TIME: 2:00 Hrs

Note: *All questions are compulsory. Carrying of mobile phone during examinations will be treated as case of unfair means. Assume any missing data suitably.*

1. Derive the flexibility matrix for the degree of freedoms given at node B in the beam as shown in **Figure 1**. **[15]**

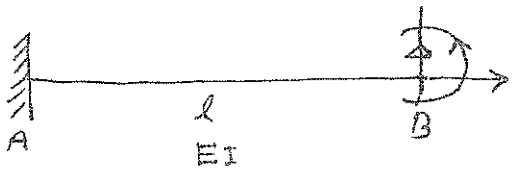

Figure 1

2. Derive the flexibility matrix for the beam as shown in **Figure 2**. **[10]**

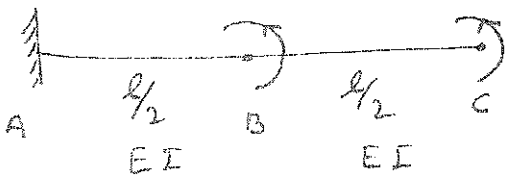

Figure 2

3. Analyze the beam by flexibility matrix method as shown in **Figure 3** and draw SFD and BMD. **[25]**

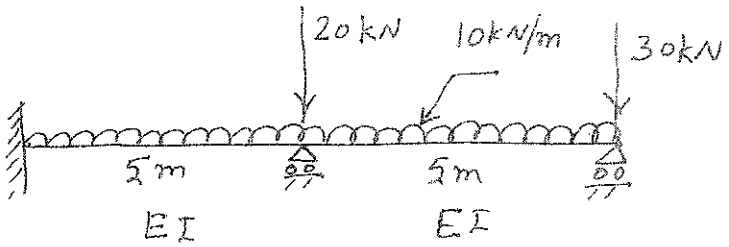

Figure 3