Assignment 6

The due date for submitting this assignment has passed.

Due on 2021-03-03, 23:59 IST.

As per our records you have not submitted this assignment.

1. In a finite shell panel analysis, if it is subjected to arbitrary support conditions, then the Ritz & Galerkin Methods are used to obtain:
   - Exact solutions
   - Numerical solutions
   - Approximate closed form solutions
   - Semi-analytical solutions
   No, the answer is incorrect.
   Reason: Incorrect
   Accepted Answers: Approximate closed form solution

2. Is the following equation for simply supported boundary conditions in a finite shell: \[ N_{zz} = 0 \]
   Solution: Cannot
   Is the answer correct?
   No
   Reason: Cannot
   Accepted Answers: Cannot

3. In the equation \[ (1 - A) C^{(1)} = 0 \] for static bending of a finite shell, \( a \) represents the matrix in the form of …
   No, the answer is incorrect.
   Reason: Incorrect
   Accepted Answers: Cannot

4. For a particular \( a = 1, A = 1 \) and for first-order shear deformation theory, how many fundamental frequencies are we getting?
   - Three
   - Two
   - One
   - Infinite
   No, the answer is incorrect.
   Reason: Incorrect
   Accepted Answers: Cannot

5. If a finite shell is subjected to Navier support boundary conditions then, natural frequency of the system is obtained by solving a set of:
   - Linear algebraic equation
   - First order shear deformation theory
   - Second order shear deformation theory
   - None of the above
   No, the answer is incorrect.
   Reason: Incorrect
   Accepted Answers: Cannot

6. For a finite cylinder subjected to all round simply supported, the boundary conditions along theta direction will be:
   - \( a_3 = 0 \)
   - \( a_4 = 0 \)
   - \( N_{zz} = 0 \)
   - \( M_{zz} = 0 \)
   No, the answer is incorrect.
   Reason: Incorrect
   Accepted Answers: Cannot

7. For a natural frequency equation \( \lambda^2 = 101 \lambda^2 - 34 = 16.6 \), the first root of the equation will lie in the band:
   - (0, 6.8)
   - (1, 7.6)
   - (2, 8.3)
   - (3, 8.5)
   No, the answer is incorrect.
   Reason: Incorrect
   Accepted Answers: Cannot


   [Consider the following parameters for a doubly curved finite square shell, \( E_t = 180(G_P, E_x) = 180 \times 10^9 \text{N/m}^2, h = 0.1\text{mm}, b_1 = 0.6\text{m}, b_2 = 0.7\text{m} \).
   then calculate:
   - \( c_{1,4}^0 \)
   - \( c_{4,4}^0 \)
   - \( 2\pi c_{4,4}^0 \)
   - \( 2\pi c_{4,4}^0 \)
   No, the answer is incorrect.
   Reason: Incorrect
   Accepted Answers: Cannot

9. From the previous common data, calculate the value of \( f_1 \)
   - \( 2.39e-7 \)
   - \( 6.34e-7 \)
   - \( 8.1e-7 \)
   - \( 9.6e-7 \)
   No, the answer is incorrect.
   Reason: Incorrect
   Accepted Answers: Cannot

10. From the previous common data, calculate the value of \( f_2 \)
    - \( 2.76e-6 \)
    - \( 2.64e-6 \)
    - \( 2.36e-6 \)
    - \( 2.14e-6 \)
    No, the answer is incorrect.
    Reason: Incorrect
    Accepted Answers: Cannot