

ing }  
-scheme } Structural Dynamics [CVPB111740] 1  
P118 - 114 (BE - FS)

Q1a) 2 marks per definition

b)  $m = 5.32 \text{ kg}$        $k = 21001.28 \text{ N/m}$  - (3+3 marks)

OR

Q2a) Derivation of Duhamel Integral = 4 marks

Derivation of response = 4 marks.

Q3) Static deflection curve = 4 marks

Theory = 8 marks

OR

Q4) Mass matrix } 4 marks  
Stiffness matrix }

Characteristic equation = 6 marks

Natural frequency + mode shape = 02 marks

Q5) Theory - 13 marks

OR

Q6) Theory - 13 marks

Q7) Theory - 13 marks

OR

Q8) Theory - 13 marks.