Unit 9 - Week 7

Assignment 7

The due date for submitting this assignment has passed.
As per our records you have not submitted this assignment.

Due on 2019-10-16, 23:59 IST.

1) Modal expansion theorem is applicable to — 1 point

a. Continuous system
b. MDOF system
c. SDOF system
d. None of the above

a
b
c
d

No, the answer is incorrect.
Score: 0
Accepted Answers:
a
b

2) Modal analysis converts continuous system into equivalent_____ system — 1 point

a. MDOF system
b. SDOF system
c. Axial bar
d. Euler-Bernoulli beam

a
b
c
d

No, the answer is incorrect.
Score: 0
Accepted Answers:
b

3) In modal analysis, a concentrated load on a beam can be modeled using — 1 point

a. Sinusoidal load
b. Dirac-delta function
c. Impulse load
d. None of the above

a
b
c
d

No, the answer is incorrect.
Score: 0
Accepted Answers:
b

4) In modal analysis of continuous system, the transformed force is written as, — 1 point

a. $\int_0^L f(x,t)dx$
b. $\int_0^L m(x)f(x,t)dx$
c. $\int_0^L \phi(x)f(x,t)dx$
d. $\int_0^L \eta(t)f(x,t)dx$

a
b
c
d

No, the answer is incorrect.
Score: 0
Accepted Answers:
c

5) In an Euler-Bernoulli beam, the effect of moving load is same as that of — 1 point

a. Impulse load
b. Harmonic load
c. Initial conditions
d. None of the above

a
b
c
d

No, the answer is incorrect.
Score: 0
Accepted Answers:
b

6) Modal analysis for continuous system is an/a _____ method — 1 point

a. Numerical
b. Analytical
c. approximate
d. None of the above

a
b
c
d

No, the answer is incorrect.
Score: 0
Accepted Answers:
b

7) For continuous system, modal analysis converts a partial differential equation into a set of _____ differential equation — 1 point

a. Ordinary
b. Partial
c. Homogeneous
d. First order

a
b
c
d

No, the answer is incorrect.
Score: 0
Accepted Answers:
a

8) The initial condition $\eta_p(0)$ can be obtained from u(x,0) as, — 1 point

a. $\int_0^L \phi_p(x)m(x)u(x,0)dx$
b. $\int_0^L \phi_q(x)m(x)u(x,0)dx$
c. $\int_0^L \phi_p(x)u(x,0)dx$
d. $\int_0^L \phi_q(x)u(x,0)dx$

a
b
c
d

No, the answer is incorrect.
Score: 0
Accepted Answers:
a

9) For continuous system modal analysis can be performed if we know — 1 point

a. Mode shape
b. Natural frequencies
c. Initial conditions
d. Forces

a
b
c
d

No, the answer is incorrect.
Score: 0
Accepted Answers:
a
b
c
d

10) Modal analysis gives an approximate solution for the vibration response — 1 point

a. True
b. False

a
b

No, the answer is incorrect.
Score: 0
Accepted Answers:
b

11) For continuous system, modal analysis is based on modal expansion theorem — 1 point

a. True
b. False

a
b

No, the answer is incorrect.
Score: 0
Accepted Answers:
a

12) A continuous system can have a rigid body mode — 1 point

a. True
b. False

a
b

No, the answer is incorrect.
Score: 0
Accepted Answers:
a

13) For continuous system, the initial conditions are given as function of — 1 point

a. Time
b. Force
c. X(spatial dimension)
d. None of the above

a
b
c
d

No, the answer is incorrect.
Score: 0
Accepted Answers:
c

14) Modal analysis of continuous system uses the orthogonality condition of mode shapes — 1 point

a. True
b. False

a
b

No, the answer is incorrect.
Score: 0
Accepted Answers:
a

15) Modal analysis of continuous system can be performed only with mass normalized mode shapes — 1 point

a. True
b. False

a
b

No, the answer is incorrect.
Score: 0
Accepted Answers:
b