

Unit 9 - Week 7

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Assignment 7

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

Due on 2020-11-04, 23:59 IST.

1) A metal chain when freely suspended takes the shape, that called _____

Hint

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: String) Catenary

1 point
1 point

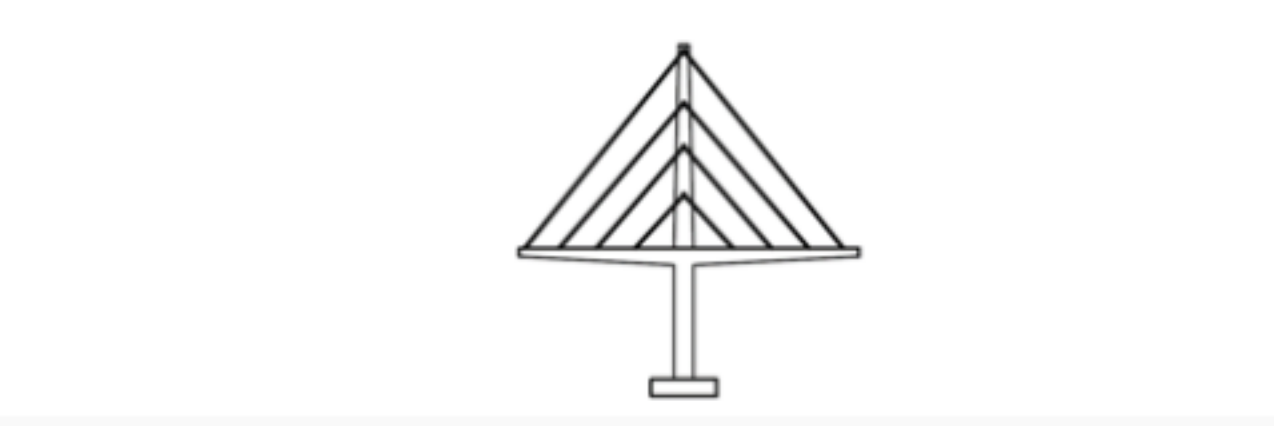
2) In cable suspended structural system 'Mast' is

(A) Horizontal Member and under Compressive Force
 (B) Horizontal Member and under Tensile Force
 (C) Vertical Member and under Compressive Force
 (D) Vertical Member and under Tensile Force

No, the answer is incorrect.
Score: 0
Accepted Answers:
(C) Vertical Member and under Compressive Force

1 point

3) The figure below represents which type of Multi-cable supported system.

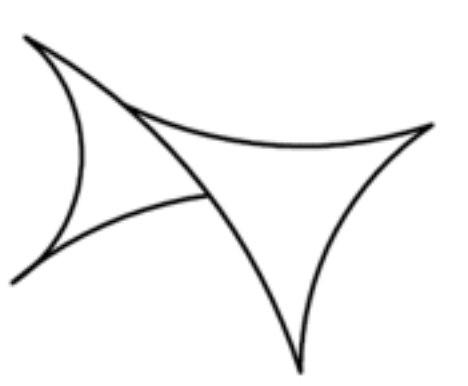


(A) Radial
 (B) Harp
 (C) Fan
 (D) Star

No, the answer is incorrect.
Score: 0
Accepted Answers:
(B) Harp

1 point

4) Following type of membrane roof is known as



(A) Hyper
 (B) Arch form
 (C) Wave
 (D) Conical

No, the answer is incorrect.
Score: 0
Accepted Answers:
(A) Hyper

1 point

5) In cable suspended structural system, 'Gay Cable' is a

(A) Tensile Member
 (B) Non-structural element
 (C) Edge Element
 (D) Compression member

No, the answer is incorrect.
Score: 0
Accepted Answers:
(A) Tensile Member

6) The 'Punching Shear' failure is predominant in _____.

Hint

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: String) Flat Plate

0 points
1 point

7) The Yale University, art gallery (figure below) designed by Louis Kahn is the example of



(A) Folded Plate
 (B) Flat Slab
 (C) Waffle Slab
 (D) Flat Plate

No, the answer is incorrect.
Score: 0
Accepted Answers:
(C) Waffle Slab

1 point

8) 'Drop Panel' is provided in Flat Slab to encounter

(A) Bending Moment
 (B) Punching Shear
 (C) Buckling effect
 (D) Torsion

No, the answer is incorrect.
Score: 0
Accepted Answers:
(B) Punching Shear

1 point

9) The joining of two plates with different orientations in folded plate structure provides

(A) Buckling
 (B) Punching Shear
 (C) Rupture
 (D) Stiffening Effect

No, the answer is incorrect.
Score: 0
Accepted Answers:
(D) Stiffening Effect

2 points

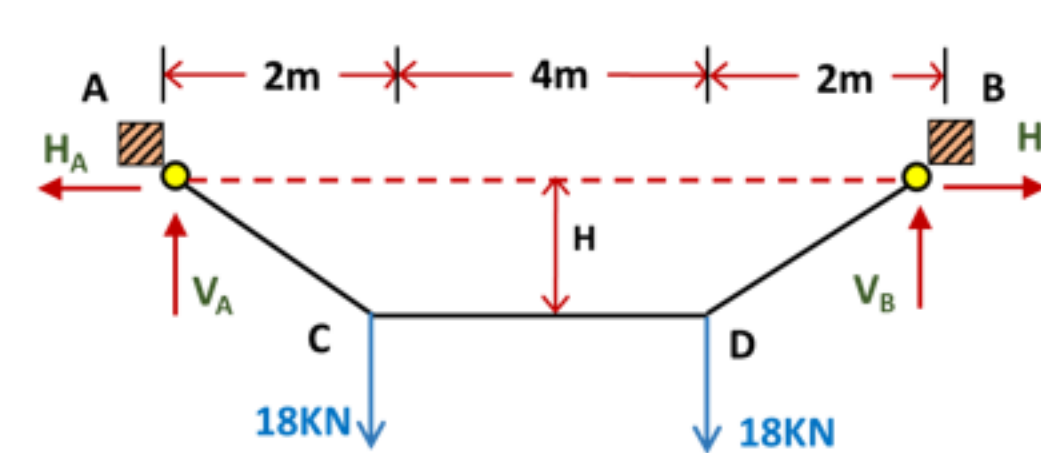
10) The structure of Sardar Vallabhbhai Patel Stadium, Ahmedabad (shown in the figure below) is an example of



(A) Folded Plate
 (B) Flat Slab
 (C) Waffle Slab
 (D) Flat Plate

No, the answer is incorrect.
Score: 0
Accepted Answers:
(A) Folded Plate

11) A cable is supporting two symmetrical loads 18KN each and creates a Funicular Polygon shape as shown in the figure below:

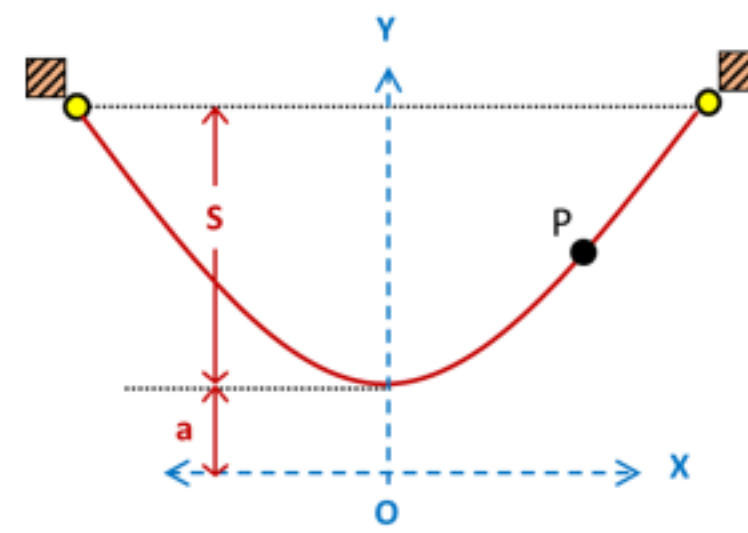


If the Horizontal reaction H_A and H_B is 24KN, then the sag in the cable (H) is _____ m.

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: Numeric) 1.5

2 points
2 points

12) A cable is hanging symmetrically as shown in the figure below. If the loading intensity, $w=1.5KN/m$. The Sag, $S = 22m$ and the vertical distance between the origin of the profile and the lower most cable point, $a = 98m$. Select the correct option for the tension at the point 'P' in the cable.



(A) Tension at P will be 147 KN
 (B) Tension at P will be more than 180 KN
 (C) Tension at P will be in between 147 to 180 KN
 (D) Tension at P will be less than 147 KN

No, the answer is incorrect.
Score: 0
Accepted Answers:
(C) Tension at P will be in between 147 to 180 KN

2 points

13) Match the type of Plate structure in Group-I and their structural concept in Group-II

Group-I		Group-II	
P	Flat Plate	1	No beam, Column with Capital
Q	Flat Slab	2	Plates with various shapes and orientations
R	Waffle Slab	3	No beam, No Column Capital
S	Folded Plate	4	Closely spaced series of beams

(A) P-2, Q-4, R-1, S-3
 (B) P-3, Q-1, R-4, S-2
 (C) P-2, Q-1, R-4, S-3
 (D) P-3, Q-4, R-1, S-2

No, the answer is incorrect.
Score: 0
Accepted Answers:
(B) P-3, Q-1, R-4, S-2

2 points

14) Following statements are made regarding the PTFE (poly-tetra-fluoro-ethylene). Read the statements and choose the correct option

Statement P: The material is suitable for membrane structure
 Statement Q: Tread name of this material is Teflon.

(A) Statements P and Q both are TRUE
 (B) Statement P is TRUE, but Statement Q is FALSE
 (C) Statement P is FALSE, but Statement Q is TRUE
 (D) Statements P and Q both are FALSE

No, the answer is incorrect.
Score: 0
Accepted Answers:
(A) Statements P and Q both are TRUE

2 points

15) Following statements are made regarding the plate structures. Read the statements and choose the correct option

Statement P: Waffle slab is subjected to Bending and Shear
 Statement Q: Folded plate is subjected to punching shear

(A) Statements P and Q both are TRUE
 (B) Statement P is TRUE, but Statement Q is FALSE
 (C) Statement P is FALSE, but Statement Q is TRUE
 (D) Statements P and Q both are FALSE

No, the answer is incorrect.
Score: 0
Accepted Answers:
(B) Statement P is TRUE, but Statement Q is FALSE