Unit 2 - Week 0 Assignment 0

Assignment 0

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

Due on 2020-09-14, 23:59 IST.

1) Choose the correct statements from the following — *1 point*

- (A) Force is the product of Mass and Velocity
- (B) Momentum is the product of Mass and Acceleration
- (C) Moment is the product of Force and Distance
- (D) Torque is the product of Mass and Gravitational Acceleration

No, the answer is incorrect.
Score: 0
Accepted Answers:
(C) Moment is the product of Force and Distance

2) One 'Newton' is approximately equivalent to the weight of — *1 point*

- (A) 100 gm
- (B) 1Kg
- (C) 10 Kg
- (D) 100 Kg

No, the answer is incorrect.
Score: 0
Accepted Answers:
(A) 100 gm

3) Which of the following materials are having good compressive strength but poor tensile strength? — *1 point*

- (A) Steel
- (B) Brick
- (C) Bamboo
- (D) Concrete

No, the answer is incorrect.
Score: 0
Accepted Answers:
(B) Brick
(D) Concrete

4) — *1 point*

$\int x^2 dx = \_\_\_\_ + C$

(A) 2x **(B)** $x^3/3$ **(C)** x/3 **(D)** x/2

- A
- B
- C
- D

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

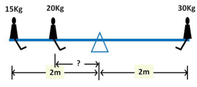
5) Read the following statements regarding the properties of material and select the correct option. — *1 point*

Statement P: Mercury cannot stick with glass due to Viscosity
Statement Q: Ductility is a property of metals

- (A) Both the statements are correct
- (B) Statement P is correct but Statement Q is wrong
- (C) Statement P is wrong but Statement Q is correct
- (D) Both the statements are wrong

No, the answer is incorrect.
Score: 0
Accepted Answers:
(C) Statement P is wrong but Statement Q is correct

6) Two children weighing 15 kg and 30 kg sit at opposite ends of a 4 m long seesaw, pivoted at its center as shown in the figure.



Another child weighing 20 kg should sit at _____ meter from the central pivot in order to balance the seesaw.

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

1 point

7) Match the name of the equation in Group-I and its expression in Group-II — *1 point*

	Group-I		Group-II
P	Conservation of Momentum	1	$\frac{1}{2}mv^2 = mgh$
Q	Linear Motion	2	$\sum F_x = 0$
R	Energy Conservation	3	$M_1 v_1 = m_2 F_2$
S	Static Equilibrium	4	$v^2 = u^2 + 2fS$

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

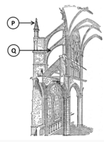
No, the answer is incorrect.
Score: 0
Accepted Answers:
(D) P–3 , Q –4 , R -1 , S-2

8) A shape with two half circles is created by a thin sheet of metal. Choose the correct options regarding the location of its centre of gravity. — *1 point*

- (A) In between line CD and point A
- (B) Along the line CD
- (C) In between line CD and point B
- (D) At the lowest point B

No, the answer is incorrect.
Score: 0
Accepted Answers:
(C) In between line CD and point B

9) Refer the part view of a Gothic Cathedral and answer the **Question no 9 and 10**



The element Marked 'P' is called _____. (Provide the full name with correct spelling. The one space should be given in between the words, but without any spaces between the letters. No punctuations are allowed)

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

1 point

10) The element Marked 'Q' is called _____.
(Provide the full name with correct spelling. The one space should be given in between the words, but without any spaces between the letters. No punctuation are allowed)

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

1 point

11) Match the type of structural system in **Group-I** and its examples in New Delhi in **Group-II** and the photograph in **Group-III** — *1 point*

Group-I		Group-II		Group-III	
P	Dome	1	J L Nehru Stadium	E	
Q	Membrane Roof	2	Hall of Nations	F	
R	Shell	3	Rashtrapati Bhavan	G	
S	Space Frame	4	Lotus Temple	H	

- (A) (P1G) (Q3H) (R4F) (S2E)
- (B) (P2H) (Q1F) (R3G) (S4E)
- (C) (P3F) (Q1E) (R4G) (S2H)
- (D) (P4E) (Q3H) (R1G) (S2F)

No, the answer is incorrect.
Score: 0
Accepted Answers:
(C) (P3F) (Q1E) (R4G) (S2H)

12) Which one of the following is NOT a material property — *1 point*

- (A) Density
- (B) Thermal Conductivity
- (C) Modulus of Elasticity
- (D) Moment of Inertia

No, the answer is incorrect.
Score: 0
Accepted Answers:
(D) Moment of Inertia

13) The roof of the building shown in the figure below is called — *1 point*

- (A) Shell
- (B) Vault
- (C) Folded Plate
- (D) Space Frame

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

14) Refer the following mathematical expression and answer the **Question no 14 and 15**

$$M = 15x^2 - 24x + 40$$

14. At x = _____ the M will be minimum

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: Numeric) 0.8

1 point

15) The Minimum value of M will be _____

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: Numeric) 30.4

1 point