

**Choose the correct answer:-**

**5 x 1 = 5**

1. The gravitational waves were theoretically proposed by  
(a) Conard Röntgen (b) Curie (c) Albert Einstein
2. The materials used in Robotics are  
(a) Aluminium and Steel (b) Aluminium and silver (c) Silver and gold
3. “Ski wax” is an application of nano product in the field of  
(a) Medicine (b) Textile (c) Sports (d) Automotive industry
4. The technology used for stopping the brain from processing pain is  
(a) Precision medicine (b) Wireless brain sensor (c) Virtual reality (d) Radiology
5. Nano means  
(a)  $10^{-9}$  m (b)  $10^{-8}$  m (c)  $10^{-12}$  m (d)  $10^{-6}$  m

**Answer any three of the following questions:-**

**3 x 2 = 6**

6. What are sub-atomic particles.
7. What is a quark ?
8. What is the use of ‘Nano Robots’ in the field of medicine ?
9. Define: cosmology.

**Answer the following questions:**

**3 x 3 = 9**

10. What are black holes.
11. Write a note on “Gravitational waves”.
12. Discuss the application of Nano material in (a) Medicine (b) Chemical industry.

**Answer the following questions:**

**3 x 5 = 15**

13. Mention any two advantages and disadvantages of Robotics.

**OR**

- Distinguish between a. Nano science and Nano technology.  
b. Nano materials and Bulk materials.

14. What is Robotics ? What is a robot

**OR**

“AI in Robots” Explain.

15. Elaborate any two types of Robot with relevant examples.

**OR**

Discuss the functions of key components in Robots.