

**G-1/165/22**

Roll No. ....

**I Semester Examination, January, 2022**

**M.Sc.**

**DEFENCE STUDIES**

Paper III

(Science of War)

Time : 3 Hours ]

[ Max. Marks : 80

**Note :** *All questions are compulsory. Question Paper comprises of 3 Sections. Section A is objective type/multiple choice questions with no internal choice. Section B is short answer type with internal choice. Section C is long answer type with internal choice.*

**SECTION A**

**1×8=8**

**(Objective Type/Multiple Choice Questions)**

*Choose the correct answer :*

- 1.** What is the name of the heavy weight torpedo, flagged off DRDO and was delivered to the Indian Navy ?
- (a) Bramhos                      (b) Varunastra  
(c) Akash                        (d) Dhanush

P.T.O.

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- 2.** India's first indigenously developed long range Bomb (LRB) has been developed by which organisation :
- (a) ISRO                              (b) DRDO  
(c) HAL                                (d) NSIL
- 3.** Rudram-1, successfully tested by DRDO is a :
- (a) Cruise Missile  
(b) Antitank Guided Missile  
(c) Anti Radiation Missile  
(d) Medium Range S to A Missile
- 4.** DRDO test fired long range nuclear capable ballistic missile 'Agni 5' : The new missile falls under which category :
- (a) Air to surface              (b) Air to air  
(c) Surface to air                (d) Surface to surface
- 5.** Where the space programme begun in India ?
- 6.** Name of the moderator used in the nuclear reactor :
- (a) Plutonium                      (b) Thorium  
(c) Graphite                        (d) Berillium
- 7.** Thermonuclear Bomb works on the principle of :
- (a) Fission                              (b) Fusion  
(c) Both (a) and (b)      (d) None of these

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8. Which of the following is a unique property of laser ?

- (a) Directional              (b) Speed  
(c) Coherence              (d) Wavelength

**SECTION B**

**6×4=24**

**(Short Answer Type Questions)**

**Note :** Answer the following questions in **250** words.

**Unit-I**

1. Write a note on cyber security.

*Or*

Explain Artificial Intelligence.

**Unit-II**

2. Write a note on Atom Bomb.

*Or*

Write a note on Neutron Bomb.

**Unit-III**

3. Explain the Missile's components.

*Or*

Describe the types of Missiles.

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**Unit-IV**

4. Write the characteristics of Laser.

*Or*

Write the uses of RADAR.

**SECTION C**

**12×4=48**

**(Long Answer Type Questions)**

**Note :** Answer the following questions in **500** words.

**Unit-I**

1. Write an article on gradual development of science and technology in War.

*Or*

Explain, how was, science and technology are related to each other ?

**Unit-II**

2. Write an article on spread and impact of nuclear weapons.

*Or*

Write an essay on Atomic Reactor.

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**Unit-III**

- 3.** Describe the missile family and guidance system of missile.

*Or*

Write an article on possible military role of space.

**Unit-IV**

- 4.** Explain the military utility of laser and types of laser.

*Or*

Write an article on the impact of Biological and chemical weapons on mankind.

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