

Name: _____ Hall Ticket No.

						A			
--	--	--	--	--	--	---	--	--	--

Answer All Questions. All Questions Carry Equal Marks. Time: 20 Min. Marks: 10.**I Choose the correct alternative:**

1. Typical specific impulse of solid rocket motor when compared to liquid propellant rocket engine []
a. Higher b. Lower c. Medium d. Difficult to say
2. Potassium perchlorate propellants with common fuels gives a specific impulse of []
a. 180-220sec b. 300-400sec c. 50-100sec d. 400-500sec
3. Burning rate of solid rocket motor propellant can be increased by adding catalyst []
a. LiClO_4 b. NH_4ClO_4 c. TiO_2 d. LiCl
4. Typical value of Ignition delay for small armament rocket is []
a. 10-20sec b. 100-200millisec c. 400-50millisec d. 10-20millisec
5. Typical Working substance for ion propulsion is []
a. Lithium b. Hydrogen c. Xenon d. Carbon
6. Typical Propellant used for Nuclear propulsion is []
a. Lithium b. Hydrogen c. Xenon d. Carbon
7. Solid core Nuclear thruster(hydrogen fuel) typically delivers a specific impulse of []
a. 800-1000sec b. 80-100sec c. 8000-10000sec d. 500sec
8. Using the principle of Fission fragment, theoretically achievable fragment speed []
a. 12% speed of light b. 9% speed of light c. 6% speed of light d. 3% speed of light
9. Solar wind contains millions of protons & electron that flow near earth orbit at []
a. 400-600km/s b. 100-150km/s c. 50-100km/s d. 4000-6000km/s
10. The effect of Gravitational shielding refers to []
a. Reducing mass of an object b. Increasing the velocity of an object
c. None of the above d. Reduction of weight of an object

Cont.....2

II Fill in the blanks

- 11. To ensure low conductivity liners for insulating the metal parts and to avoid thermal stress _____ material is used in solid rocket motors
- 12. Intermittent burning is called as _____
- 13. Ignition delay increases with a decrease in _____
- 14. A side burning grain is called _____ when combustion takes place on all lateral faces.
- 15. Exhaust velocity for electric static thruster is $u_e =$ _____
- 16. Two high performance electromagnetic thrusters being investigated are _____ & _____
- 17. Due to higher energy density, Propellant efficiency of nuclear engine is nearly _____ than the chemical rockets
- 18. Most widely studied configuration for terrestrial fusion is _____
- 19. Big difficulty with anti matter rocket is _____ & _____
- 20. Main element of field emission electric propulsion thruster is _____

Name: _____ Hall Ticket No.

						A			
--	--	--	--	--	--	---	--	--	--

Answer All Questions. All Questions Carry Equal Marks. Time: 20 Min. Marks: 10.**I Choose the correct alternative:**

1. Typical value of Ignition delay for small armament rocket is []
a. 10-20sec b. 100-200millisec c. 400-50millisec d. 10-20millisec
2. Typical Working substance for ion propulsion is []
a. Lithium b. Hydrogen c. Xenon d. Carbon
3. Typical Propellant used for Nuclear propulsion is []
a. Lithium b. Hydrogen c. Xenon d. Carbon
4. Solid core Nuclear thruster(hydrogen fuel) typically delivers a specific impulse of []
a. 800-1000sec b. 80-100sec c. 8000-10000sec d. 500sec
5. Using the principle of Fission fragment, theoretically achievable fragment speed []
a. 12% speed of light b. 9% speed of light c. 6% speed of light d. 3% speed of light
6. Solar wind contains millions of protons & electron that flow near earth orbit at []
a. 400-600km/s b. 100-150km/s c. 50-100km/s d. 4000-6000km/s
7. The effect of Gravitational shielding refers to []
a. Reducing mass of an object b. Increasing the velocity of an object
c. None of the above d. Reduction of weight of an object
8. Typical specific impulse of solid rocket motor when compared to liquid propellant rocket engine []
a. Higher b. Lower c. Medium d. Difficult to say
9. Potassium perchlorate propellants with common fuels gives a specific impulse of []
a. 180-220sec b. 300-400sec c. 50-100sec d. 400-500sec
10. Burning rate of solid rocket motor propellant can be increased by adding catalyst []
a. LiClO_4 b. NH_4ClO_4 c. TiO_2 d. LiCl

Cont.....2

II Fill in the blanks

11. A side burning grain is called _____ when combustion takes place on all lateral faces.
12. Exhaust velocity for electric static thruster is $u_e =$ _____
13. Two high performance electromagnetic thrusters being investigated are _____ & _____
14. Due to higher energy density, Propellant efficiency of nuclear engine is nearly _____ then the chemical rockets
15. Most widely studied configuration for terrestrial fusion is _____
16. Big difficulty with anti matter rocket is _____ & _____
17. Main element of field emission electric propulsion thruster is _____
18. To ensure low conductivity liners for insulating the metal parts and to avoid thermal stress _____ material is used in solid rocket motors
19. Intermittent burning is called as _____
20. Ignition delay increases with a decrease in _____

Name: _____ Hall Ticket No.

						A			
--	--	--	--	--	--	---	--	--	--

Answer All Questions. All Questions Carry Equal Marks. Time: 20 Min. Marks: 10.**I Choose the correct alternative:**

1. Typical Propellant used for Nuclear propulsion is []
a. Lithium b. Hydrogen c. Xenon d. Carbon
2. Solid core Nuclear thruster(hydrogen fuel) typically delivers a specific impulse of []
a. 800-1000sec b. 80-100sec c. 8000-10000sec d. 500sec
3. Using the principle of Fission fragment, theoretically achievable fragment speed []
a. 12% speed of light b. 9% speed of light c. 6% speed of light d. 3% speed of light
4. Solar wind contains millions of protons & electron that flow near earth orbit at []
a. 400-600km/s b. 100-150km/s c. 50-100km/s d. 4000-6000km/s
5. The effect of Gravitational shielding refers to []
a. Reducing mass of an object b. Increasing the velocity of an object
c. None of the above d. Reduction of weight of an object
6. Typical specific impulse of solid rocket motor when compared to liquid propellant rocket engine []
a. Higher b. Lower c. Medium d. Difficult to say
7. Potassium perchlorate propellants with common fuels gives a specific impulse of []
a. 180-220sec b. 300-400sec c. 50-100sec d. 400-500sec
8. Burning rate of solid rocket motor propellant can be increased by adding catalyst []
a. LiClO_4 b. NH_4ClO_4 c. TiO_2 d. LiCl
9. Typical value of Ignition delay for small armament rocket is []
a. 10-20sec b. 100-200millisec c. 400-50millisec d. 10-20millisec
10. Typical Working substance for ion propulsion is []
a. Lithium b. Hydrogen c. Xenon d. Carbon

Cont.....2

II Fill in the blanks

11. Two high performance electromagnetic thrusters being investigated are _____ & _____
12. Due to higher energy density, Propellant efficiency of nuclear engine is nearly _____ than the chemical rockets
13. Most widely studied configuration for terrestrial fusion is _____
14. Big difficulty with anti matter rocket is _____ & _____
15. Main element of field emission electric propulsion thruster is _____
16. To ensure low conductivity liners for insulating the metal parts and to avoid thermal stress _____ material is used in solid rocket motors
17. Intermittent burning is called as _____
18. Ignition delay increases with a decrease in _____
19. A side burning grain is called _____ when combustion takes place on all lateral faces.
20. Exhaust velocity for electric static thruster is $u_e =$ _____

Name: _____ Hall Ticket No.

						A			
--	--	--	--	--	--	---	--	--	--

Answer All Questions. All Questions Carry Equal Marks. Time: 20 Min. Marks: 10.**I Choose the correct alternative:**

1. Using the principle of Fission fragment, theoretically achievable fragment speed []
a. 12% speed of light b. 9% speed of light c. 6% speed of light d. 3% speed of light
2. Solar wind contains millions of protons & electron that flow near earth orbit at []
a. 400-600km/s b. 100-150km/s c. 50-100km/s d. 4000-6000km/s
3. The effect of Gravitational shielding refers to []
a. Reducing mass of an object b. Increasing the velocity of an object
c. None of the above d. Reduction of weight of an object
4. Typical specific impulse of solid rocket motor when compared to liquid propellant rocket engine []
a. Higher b. Lower c. Medium d. Difficult to say
5. Potassium perchlorate propellants with common fuels gives a specific impulse of []
a. 180-220sec b. 300-400sec c. 50-100sec d. 400-500sec
6. Burning rate of solid rocket motor propellant can be increased by adding catalyst []
a. LiClO_4 b. NH_4ClO_4 c. TiO_2 d. LiCl
7. Typical value of Ignition delay for small armament rocket is []
a. 10-20sec b. 100-200millisec c. 400-50millisec d. 10-20millisec
8. Typical Working substance for ion propulsion is []
a. Lithium b. Hydrogen c. Xenon d. Carbon
9. Typical Propellant used for Nuclear propulsion is []
a. Lithium b. Hydrogen c. Xenon d. Carbon
10. Solid core Nuclear thruster(hydrogen fuel) typically delivers a specific impulse of []
a. 800-1000sec b. 80-100sec c. 8000-10000sec d. 500sec

Cont.....2

II Fill in the blanks

11. Most widely studied configuration for terrestrial fusion is _____
12. Big difficulty with anti matter rocket is _____ & _____
13. Main element of field emission electric propulsion thruster is _____
14. To ensure low conductivity liners for insulating the metal parts and to avoid thermal stress _____ material is used in solid rocket motors
15. Intermittent burning is called as _____
16. Ignition delay increases with a decrease in _____
17. A side burning grain is called _____ when combustion takes place on all lateral faces.
18. Exhaust velocity for electric static thruster is $u_e =$ _____
19. Two high performance electromagnetic thrusters being investigated are _____ & _____
20. Due to higher energy density, Propellant efficiency of nuclear engine is nearly _____ than the chemical rockets