

**DISSERTATION
FOR
THE CERTIFICATE COURSE
IN
ASTRONOMY AND ASTROPHYSICS**

A dissertation-oriented programme for the students of undergraduate level and above

Topics for Dissertation

1. Planetary Physics
2. Physics of Sun
3. Asteroids, Meteors and Comets
4. Stellar evolution
5. Stellar energy generation
6. Stellar structure
7. Interstellar matter
8. Stellar spectral classification
9. Clusters of stars – Open and Globular
10. Milky Way Galaxy
11. Galaxies and Clusters of galaxies
12. Astronomical Telescopes – Optical
13. Astronomical Telescopes – Radio
14. Radio Astronomy
15. Gamma ray and X-Ray Astronomy
16. Black Holes
17. Pulsars and Neutron stars
18. Origin of the Universe
19. Astronomical Instrumentation
20. Dark Matter

The students may choose any of the above mentioned topics for their dissertation work. Any other related topics also can be taken up.

Sample titles for dissertation

- 1 Astronomy's Odyssey
- 2 A manual for amateur Radio Astronomy
- 3 A rendezvous with the star - Its birth and evolution
- 4 A Tour to the Nine Planets
- 5 Active Galactic Nucleii
- 6 Adaptive Optics
- 7 Antimatter & Its applications in space technology
- 8 Artificial Satellites
- 9 Asteroids, Meteors and Comets
- 10 Astrobiology

11	Astronomical Instrumentation
12	Astronomical telescopes - Radio
13	Astronomical telescopes -Optical
14	Auroras - The dancing lights
15	Beyond the Event Horizon: An Intro to BH
16	Binary & Multiple Stars
17	Biology of Universe
18	Black Holes
19	Breaking the ultimate taboo-Time Travel
20	Clusters of stars - Open and Globular
21	Comets
22	Comets, Asteroids and Meteors
23	Concept of entropy in Cosmology
24	Connecting with the Cosmos
25	Cosmic climatic influence
26	Cosmic Hide and Seek
27	Cosmology and the Big Bang
28	Dark Matter
29	Death of Stars
30	Distribution near a Star and a Black Hole
31	Evolution of Stars
32	From Aristotle to Stephen Hawking
33	Galaxies
34	Galaxies and clusters of galaxies
35	Gamma Ray Astronomy
36	Gamma Ray bursts - An unsolved mystery
37	GammaRay and X-Ray Astronomy
38	Hubble Telescope
39	Indian Astronomy
40	Interstellar Medium
41	Is somebody out there
42	Jewels of the Night Sky - Stars
43	Life in the universe
44	Looking up
45	Mars
46	Milky Way Galaxy
47	Minor Planets Around the Sun
48	MOND - Modified Newtonian Dynamics
49	Moon
50	Nebula
51	Neutron Stars
52	Physics of the Sun
53	Planetary Physics
54	Pulsars - The intriguing cosmic clocks
55	Pulsars and Neutron Stars
56	Quasars
57	Quasars and Active Galaxies
58	Radio Astronomy
59	Rockets
60	Satellites

- 61 Solar Physics
- 62 Space Architecture
- 63 Space exploration using Comet
- 64 Space station
- 65 Space, Time and Relativity
- 66 Stars
- 67 Stars and beyond
- 68 Stars in H-R diagram
- 69 Star-The Cosmic Kitchen
- 70 Stellar energy generation
- 71 Stellar evolution
- 72 Stellar Life Cycle
- 73 Stellar spectral classification
- 74 Stellar structure
- 75 Strange Quark Stars
- 76 Sun-The nearest Star
- 77 Terraforming
- 78 The Big Bang
- 79 The black hole at the center of our Galaxy
- 80 The moon
- 81 The Solar System
- 82 The 'Veiled" world of Venus
- 83 Theory of Relativity
- 84 Ticking Away Mysteriously
- 85 Time travel and Wormholes
- 86 Tour - de - Universe
- 87 Understanding the physical evolution Of the Universe
- 88 Universe through the radio eye
- 89 Universe
- 90 Viewing the invisible
- 91 When was the Origin? When is the end?

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