



UNIVERSITY OF THE PUNJAB

B.A. / B.Sc. Part – I
Annual Examination - 2018

Roll No.

Subject: Aero Science-I

TIME ALLOWED: 3 hrs.
MAX. MARKS: 100

NOTE: Attempt any FIVE questions. All question carry equal marks.

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| Q-1 | Derive the Energy Equation? | 20 |
| Q-2 | What is Effective Exhaust velocity. Discuss in detail? | 20 |
| Q-3(a) | What is Subsonic Combustion Ramjet? | 10 |
| (b) | Pen down the Advantages and disadvantages of Pulsejet? | 10 |
| Q-4(a) | What are Turbines operating conditions? | 10 |
| (b) | Discuss Vane and Blade profile? | 10 |
| Q-5 | What are the advantages of Lift-Thrust turbofan? | 20 |
| Q-6 | What are the methods of reducing or eliminating Fuel losses. Your answer should be scientific and logical? | 20 |
| Q-7 | Discuss and analyze TS diagram of actual and ideal? | 20 |
| Q-8 | What is the importance of Combustion Chamber. How fuel flows and enters here. Write about its material ? | 20 |
| Q-9 | Write notes on any TWO of the following? | 20 |
| | i. Rocket performance | |
| | ii. Engine types | |
| | iii. Lifting Engines | |