

APPENDIX 4A

100 QUESTIONS BASED ON SOURCE DOCUMENTS LISTED IN
APPENDIX 4B

- 20-06 Magnitude of reductions in heat transfer on the nose region of a body when ablation of the surface takes place. (P12002)
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- 20-08 Panel flutter analysis. (P12055)
- 20-09 Typical shear values for commercial huckbolts. (P12063)
- 20-10 Use of stabilizing signals in servo-mechanisms. (P12098)
- 21-06 Frequency and natural modes of the vibrations of box-beam and delta wings. (P12120)
- 21-07 Electrical analogy methods - lifting line calculator. (P12125)
- 21-08 Comparison of calculated and experimental performance of an axial compressor stage having constant stator inlet air angle of 50% reaction at mean stage radius. (P12136)
- 21-09 Corrosion-resistance controls on production of stainless steels. (P12179)
- 21-10 Enthalpy boundary layer profiles on a cone at large yaw. (P12187)
- 22-06 Wind tunnel interference on oscillating wings. (P12221)
- 22-07 Analysis of the tuned circuits of a demodulator for frequency modulation. (P12243)
- 22-08 A method of using hot wire technique to measure turbulence functions in turbulent supersonic flow. (P12257)
- 22-09 What metallographic procedure is followed for TiC cermets. (P12282)
- 22-10 What is the equation of magnetohydrostatics. (P12300)
- 23-06 Relation of surface-cooling to boundary layer transition. (P12309)
- 23-07 Performance of centrebody intakes. (P12311)
- 23-08 Rate of fuel vaporization in the combustion chamber of a heptane oxygen rocket engine. (P12313)
- 23-09 Velocity profile, heat transfer and skin friction data for turbulent boundary layers in hypersonic flow. (P12355)
- 23-10 Dimensional analysis of the performance of one-stream combustion chambers. (P12362)

- 24-06 The effective pitching moment of inertia of an aircraft with a flexible swept wing. (P12406)
- 24-07 The effects of lateral damping on the dispersion of fighter aeroplane gunfire. (P12414)
- 24-08 The effect of crossover passages in the blade tip on circulation of coolant through passages in turbine rotor blades. (P12439)
- 24-09 Calculation of damping in roll at supersonic speeds. (P12456)
- 24-10 Effect of altitude on helicopter performance. (P12475)
- 25-06 Effect of vibration on the structural properties of a wing. (P12504)
- 25-07 Comparison of alclad and unclad aluminium sheets riveted together and subjected to fatigue loading. (P12514)
- 25-08 Electromagnetic analogy for downwash. (P12538)
- 25-09 What humidity is considered allowable in intermittent wind tunnels, and how is it obtained most efficiently. (P12576)
- 25-10 Approximate solution of 2-d supersonic rotational flow in the neighbourhood of an expansive corner. (P12587)
- 26-06 Mechanism by which hydrogen leaves the molecular phase and enters a metal. (P12611)
- 26-07 Reverse flow theorems at supersonic speeds. (P12615)
- 26-08 Comparison of heat transfer theories in forced, non-isothermal, convection over arbitrary surfaces. (P12662)
- 26-09 Explain the significance of flying boat forebody warp with regard to the characteristics of longitudinal stability, blister spray generation and impact loads encountered during landing. (P12675)
- 26-10 What values have been reported for actuation energies of the damping process in aluminium-copper alloys. (P12695)
- 27-06 Effect of flexible walled nozzles on supersonic flow. (P12706)
- 27-07 Effect of shear lag on transverse oscillations of thin-walled cylindrical beams. (P12712)
- 27-08 Experiments on throttle fuel controls for gas-turbine engines. (P12740)
- 27-09 Impedance testing of aircraft power control units. (P12767)
- 27-10 Stability data for propane air mixtures stabilized by an annular air jet. (P12776)

- 28-06 Reduction of the nonlinear partial differential equations for the laminar boundary layer over a cone at large angles of attack in supersonic flow, to a set of simultaneous algebraic equations. (P12810)
- 28-07 Theoretical calculation of the performance of half-delta wing-tip controls on the tips of delta wings. (P12838)
- 28-08 Theoretical method for predicting pressure distribution on an oscillating airfoil in two-dimensional flow at Mach number 4 or greater. (P12860)
- 28-09 Beam riding guidance of anti-aircraft missiles. (P12864)
- 28-10 What is the effect of rapid quenching on A356 aluminium casting alloy. (P12895)
- 29-06 Can cermet be used as structural materials above 1000°C. (P12939)
- 29-07 Alleviation of the airplane pitch-up problem by the use of leading edge slats. (P12944)
- 29-08 Effect of combined tension and bending on curvature of beams in the plastic range. (P12956)
- 29-09 Transformation theory of the partial differential equations of gas dynamics. (P12959)
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- 30-06 What is the average decrease in gas consumption per horse power hour for reciprocating aircraft engines in the course of their history. (P13059)
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- 31-10 Calculation of the net drag imposed by a ram-air cooling system (for aircraft). (P13177)

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- 39-09 Choice of power-plant installations for supersonic jet transports. (P13985)
- 39-10 Editing of flight test data. (P13993)