



International Islamic University,

Islamabad

FACULTY OF BASIC AND APPLIED SCIENCES

MS Mathematics Admission Test

Max. Time: 90 Minutes

50 MCQs from the following subjects and all to attempt:

- Q.No.1. Real Analysis-I
- Q.No.2. Group Theory.
- Q.No.3. Ordinary Differential Equations
- Q.No.4. Differential Geometry-I
- Q.No.5. Complex Analysis
- Q.No.6. Linear Algebra
- Q.No.7. Set Topology
- Q.No.8. Real Analysis-II
- Q.No.9. Partial Differential Equations
- Q.No.10. Functional Analysis-I
- Q.No.11. Analytical Mechanics
- Q.No.12. Numerical Methods
- Q.No.13. Mechanics

Some questions as example:

Q.No. 1. Let (X,d) be the discrete metric space, x be an element of X and r be a real number with $r > 1$. Then the open ball $S_r(x)$ is

- a) an infinite set
- b) a closed interval
- c) empty set
- d) equal to X
- e) a subset of set of integers

Q.No.2. Every bounded below and increasing sequence is

- a) convergent
- b) divergent
- c) neither convergent nor divergent
- d) May be convergent and may be divergent
- e) none of these

Q.No. 3. Inertia matrix is a

- a) tensor of order 3
- b) tensor of order 2
- c) vector of magnitude 1
- d) triangular matrix
- e) none of these