UNIVERSITY OF AL-HAMDANIYA, COLLEGE OF EDUCATION DEPARTMENT OF MATHEMATICS

RING THEORY

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Lecture No. 1

SUBJECTS

No.	subject
1	Definition of distributive operation and examples
2	Definition of rings and examples
3	Definition of Zero Divisor and integral domains
4	Sub rings, examples
5	Characteristic of rings ,theorems
6	Problem
7	Problem
8	Ideals , examples and theorems
9	Ideals, generated by a set.
10	Quotient ring of R by I
11	problem
12	Homeomorphisms ,
13	kernel of homeomorphism Definition

No.	subject
14	Theorem of kernel
15	Definition of Isomorphism and Theorem .
16	The Fundamental Theorems Of Ring Homomorphism
17	Fields, definition and examples
18	Subfield
19	Problem
20	Prime fields , examples
21	Maximal ideal ,definitions and examples
22	Maximal ideal in Z and other theorems
23	(krull-zora) theorems
24	Prime ideal 1
25	Prime ideal 2
26	Primary ideal

No.	subject
27	The radical of a ring
28	Nil radical
29	problem
30	Polynomial rings

References

- Abstract Algebra , D. M. Burton , Brown Publishers – 1988 .
- Abstract Algebra, D. S. Dummit, R. M. Foote , 2004 .