

Samrat Ashok Technological Institute, Vidisha

Agricultural Engineering Department

Lecture Plan (Course outcomes)

B.E. Civil (III Sem.)

Dr. J.S. Chauhan

Sub AEO-201 (Material Science)

| LECTURE/ DATE | TOPIC/SUB TOPIC | METHOD OF TEACHING | CO MAPPED | BLOOMS LEVEL |
|------------------|---|--------------------------|--------------|-----------------|
| 1 | Introduction of Crystal Structures | Board, PPT, Notes etc. | CO1 | 1,2,3 |
| 2 | Space lattice and crystal structures | board, PPT, Notes etc. | CO1 | 1,2,3 |
| 3 | Determination of Crystal structure by X-ray technique | Board, PPT, Notes etc. | CO1 | 1,2,3 |
| 4 | Imperfections in crystals | Board, PPT, Notes etc. | CO1 | 1,2,3 |
| 5 | Influence of imperfections on properties of materials | Board, PPT, Notes etc. | CO1 | 1,2,3 |
| 6 | Dislocation multiplication | Board, PPT, Notes etc. | CO1 | 1,2,3 |
| 7 | Diffusion, Mechanisms & Laws and applications | Board, PPT, Notes etc. | CO1 | 1,2,3 |
| 8 | QUIZ & ASSIGNMENT | Board, PPT, Notes etc. | CO1 | 1,2,3 |
| 9 | REVISION OF UNIT 1 | Board, PPT, Notes etc. | CO1 | 1,2,3 |
| 10 | Elastic Behaviour of Materials | Board, PPT, Notes etc. | CO2 | 1,2,3 |
| 11 | Viscoelastic Behaviour of Materials | Board, PPT, Notes etc. | CO2 | 1,2,3 |
| 12 | plastic deformation | Board, PPT, | CO2 | 1,2,3 |

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| | | Notes etc. | | |
| 13 | strain hardening | Board, PPT, Notes etc. | CO2 | 1,2,3 |
| 14 | Yield point phenomena | Board, PPT, Notes etc. | CO2 | 1,2,3 |
| 15 | Ductile fracture | Board, PPT, Notes etc. | CO2 | 1,2,3 |
| 16 | brittle fracture | Board, PPT, Notes etc. | CO2 | 1,2,3 |
| 17 | QUIZ & ASSIGNMENT | Board, PPT, Notes etc. | CO2 | 1,2,3 |
| 18 | REVISION OF UNIT 2 | Board, PPT, Notes etc. | CO2 | 1,2,3 |
| 19 | Introduction of Mechanical Properties of Materials | Board, PPT, Notes etc. | CO3 | 1,2,3 |
| 20 | Tensile and compression test | Board, PPT, Notes etc. | CO3 | 1,2,3 |
| 21 | shear test & fatigue test | Board, PPT, Notes etc. | CO3 | 1,2,3 |
| 22 | hardness test | Board, PPT, Notes etc. | CO3 | 1,2,3 |
| 23 | impact test | Board, PPT, Notes etc. | CO3 | 1,2,3 |
| 24 | Creep strength of materials | Board, PPT, Notes etc. | CO3 | 1,2,3 |
| 25 | QUIZ & ASSIGNMENT | Board, PPT, Notes etc. | CO3 | 1,2,3 |
| 26 | REVISION OF UNIT 3 | Board, PPT, Notes etc. | CO3 | 1,2,3 |
| 27 | Introduction of Dielectric Materials | Board, PPT, Notes etc. | CO4 | 1,2,3 |
| 28 | Principles of Dielectric Materials | Board, PPT, Notes etc. | CO4 | 1,2,3 |
| 29 | Principles of Dielectric Materials | Board, PPT, Notes etc. | CO4 | 1,2,3 |
| 30 | temperature and frequency effects block | Board, PPT, Notes etc. | CO4 | 1,2,3 |

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| 31 | ferroelectric materials | Board, PPT, Notes etc. | CO4 | 1,2,3 |
| 32 | ferroelectric materials | Board, PPT, Notes etc. | CO4 | 1,2,3 |
| 33 | QUIZ & ASSIGNMENT | Board, PPT, Notes etc. | CO4 | 1,2,3 |
| 34 | REVISION OF UNIT 4 | Board, PPT, Notes etc. | CO4 | 1,2,3 |
| 35 | Types of Polymers | Board, PPT, Notes etc. | CO5 | 1,2,3 |
| 36 | Properties of Polymers | Board, PPT, Notes etc. | CO5 | 1,2,3 |
| 37 | Properties of Polymers | Board, PPT, Notes etc. | CO5 | 1,2,3 |
| 38 | Additives of Polymers | Board, PPT, Notes etc. | CO5 | 1,2,3 |
| 39 | Application of Polymers | Board, PPT, Notes etc. | CO5 | 1,2,3 |
| 40 | QUIZ , ASSIGNMENT & REVISION OF UNIT 5 | Board, PPT, Notes etc. | CO5 | 1,2,3 |