BHARATI VIDYAPEETH'S

COLLEGE OF ENGINEERING, KOLHAPUR

Name of Department : First .Year B Tech (All Branches) SEM: I & II

Course Name**:** BSC-P-101 Engineering Physics

Course Outcomes:

Upon successful completion of this course, the student will be able to:

1. Derive an expression of resolving power of diffraction grating.
2. Describe types of laser with the help of proper energy level diagrams and write laser transmission through optical fiber.
3. Solve various problems based on Sabine s formula. Explain various factors affecting on acoustics of hall with their remedy
4. Calculate packing factor for SC, BCC and FCC.
5. Explain construction and working of Scanning Tunneling Microscope
6 Derive an expression for wavelength of matter wave in terms of kinetic energy of particle and Potential difference

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COLLEGE OF ENGINEERING, KOLHAPUR

Name of Department : First .Year B Tech (All Branches) SEM: I & II

Course Name: BSC-M-I-102Engineering Mathematics-I

Course Outcomes (CO'S):

Upon successful completion of this course, the student will be able to:

1. Reduce the matrix to normal form, echelon form and solve linear system of equations.
2. Find Eigen values and Eigen vectors of matrix and higher powers of matrices Using Cayley Hamilton theorm,
3. Calculate roots of complex numbers, separation into real and imaginary parts of complex numbers.
4. Find numerical solution of linear simultaneous equations.
5. Expand given functions using Taylor's and Maclaurin's series and find limit using L Hospital's rule
6. Find partial derivatives and use it in certain applications

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COLLEGE OF ENGINEERING, KOLHAPUR

Name of Department : First .Year B Tech (All Branches) SEM: I & II

Course Name: BSC-M-I-102Basic Electrical Engineering

Course Outcomes :

Upon successful completion of this course, the student will be able to:

1.Select type of Electric circuit for different processes & application with concepts.

2.Select type of magnetic circuit with circuit diagram & design for different application.

3.Obtains circuit diagram & analysis of single phase AC circuit.

4.Obtains circuit diagram, analysis & process of 3 phase star & delta.

5.Obtains circuit diagram & concepts with analysis of Earthing & lamps.

6.Obtains circuit diagram & analysis of core & shell type transformer with losses.

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COLLEGE OF ENGINEERING, KOLHAPUR

Name of Department : First .Year B Tech (All Branches) SEM: I & II

Course Name: Basic BSC-M-I-102 Civil Engineering

Course Outcomes (CO's):

Upon successful completion of this course, the student will be able to:

1. To understand relevance of Civil Engineering.
2. To understand significance of building system.
3. To understand the use of different survey instruments for the field operations.

BHARATI VIDYAPEETH'S

COLLEGE OF ENGINEERING, KOLHAPUR

Name of Department : First .Year B Tech (All Branches) SEM: I & II

Course Name: ESC-P-105 Engineering Graphics

Course Outcomes:

Upon successful completion of this course, the student will be able to:

1. Use the drawing instruments effectively and able to dimension the given figures & the usage of engineering curves in tracing the paths of simple machine components
2. Understand the concept of projection and acquire visualization skills, projection of points
3. Able to draw the basic views related to projections of Lines, Planes
4. Develop student's imagination and ability to represent the shape size and specifications of physical objects.
5. This will give students ability to draw three dimension objects on the paper and to draw the pectoral drawings.
6. Understand the development of surface of body

BHARATI VIDYAPEETH'S

COLLEGE OF ENGINEERING, KOLHAPUR

Name of Department : First .Year B Tech (All Branches) SEM: I & II

Course: **-I 106** Professional Communication Skill-I

Course Outcomes (COs):

Upon successful completion of this course, the student will be able to:

1.To develop competency in communication skills related to production and presentation of messages in multiple formats.
2.To introduce students to the art of speaking effectively.
3.To develop language proficiency of Engineering students.
4.To inculcate the value of ethical communication.
5.To demonstrate knowledge of communication theory and application.

BHARATI VIDYAPEETH'S

COLLEGE OF ENGINEERING, KOLHAPUR

Name of Department : First .Year B Tech (All Branches) SEM: I & II

Semester- I/II- Chemistry Group.

Course Name: BSC-C-101 Engineering Chemistry

Course Outcomes (COs):

Upon successful completion of this course, the student will be able to:

1. Effect of hard water in steam generation in boilers Scale & Sludge formation.
2. Schematic Working & Application of single beam Spectrophotometer.
3. Write industrially important of plastic like phenol formaldehyde and epoxy resins
4. Numerical problems on Bomb and Boy's calorimeter
5. Explain factor affecting rate of corrosion.
6. Explain the composition, properties and applications of mild carbon steel.

BHARATI VIDYAPEETH'S

COLLEGE OF ENGINEERING, KOLHAPUR

Name of Department: First .Year B Tech (All Branches) SEM: I & II

Course Name: BSC-M-II-202 Engineering Mathematics-II

Course Outcomes :

Upon successful completion of this course, the student will be able to:

1.Solve ordinary differential equations of first order and first degree.

2.Solve simple electric circuit problems, find orthogonal trajectories of given curves and solve Newton's law of cooling problems.

3.Find Numerical solution of ordinary differential equations of first order and first degree.

4.Find Numerical Solutions of Algebraic and Transcendental Equations.

5.Evaluate single integrals by using special functions.

6.Evaluate double integrals and use it to find area enclosed by plane curves ,mass of plane lamina

BHARATI VIDYAPEETH'S

COLLEGE OF ENGINEERING, KOLHAPUR

Name of Department : First .Year B Tech (All Branches) SEM: I & II

Course Name: ESC-C-103Fundamentals of Electronics and Computer Programming

Course Outcomes:

Upon successful completion of this course, the student will be able to:

1.To understand testing and measurement of Electronic Components and knowledge of operational amplifiers.
2.To understand basics of sequential & combinational logics
3.To understands Basics of Transducers.
4.To study basics of Computer hardware & software.
5.To expose students to Program building blocks.
6.To understand the basics of networks & Internet.

BHARATI VIDYAPEETH'S

COLLEGE OF ENGINEERING, KOLHAPUR

Name of Department : First .Year B Tech (All Branches) SEM: I & II

Course Name: ESC-C-105 Basic Mechanical Engineering

Course Outcomes:

Upon successful completion of this course, the student will be able to:

1. Acquire basic knowledge of mechanical engineering
2. Impart knowledge of basic concepts of thermodynamics applied to industrial application.
3. Understand principle of energy conversion system and power plants.
4. Understand and identify power transmission devices with their functions.
5. Learn and understand manufacturing process.
6. Understanding concepts of thermodynamics applied to industrial application