BRANCH-MACHINE DESIGN.

IES COLLEGE OF TECHNOLOGY, BHOPAL
M.E./ M.Tech.(1th SEM) Assignment -1 (UNIT 1 &2)
Advanced Mathematics (MMMD-101)

Date of Assignment: 18/09/14   Date of Submission:17/10/2014

Note: 1.Question should be written in plain A-4 Size Paper.
  2. Minimum 300 Word Limit for each Question.
  3. Assignment will submit in stick file.

1.	Define vector space and show that the set of all matrices of order 2×2 is vector space with respect to matrix addition and scalar multiplication.	4
2	Show that mapping f:$v_3(r)$->$v_2(R)$ defined by f(a,b,c) =(a,b) is linear transformation. What is kernel of this transformation?	4
3	Solve the poison's equation $\frac{d^2y}{dx^2}\frac{d^2y}{dy^2} = -10(x^2 + y^2 + 10)$ over sides x=y=0, x=y=3 with 4(x,y)=0 on the boundary and mesh length L=1.	4
4	Find the solution of the one dimensional heat equation by variable separable method.	4

IES COLLEGE OF TECHNOLOGY, BHOPAL
M.E./ M.Tech.(1th SEM) Assignment -1(UNIT 1 &2)
(MMMD-102)

Date of Assignment: 18/09/14   Date of Submission:17/10/2014

Note: Minimum 300 Word Limit for each Question.

1.	Define the principal of moment and bending stress due unsymmetrical bending of beams. DEC-2012
2	Locate the neutral axis in beams having rectangular and triangular sections ,also derive the expression of each?JUNE-2013
3	Derive the expression of bending of symmetrical I section? DEC-2013
4	Define the theory of elasticity and plasticity with suitable diagram?JUNE-2013
5	Derive the expression to locate the round channel section?DEC-2013

IES COLLEGE OF TECHNOLOGY, BHOPAL
M.E./ M.Tech.(1th SEM) Assignment -1(UNIT 1 &2)
MATERIAL SCIENCE (MMMD-103)

Date of Assignment: 18/09/14   Date of Submission:17/10/2014

Note: Minimum 300 Word Limit for each Question.

1.	Describe the imperfections in crystals and surface? With their diagram.(june-2013)
2	Draw the crystal structure of metals?(june-2013)
3	Define and differentiate the conductors and insulators and semi conductors?(june-2013)
4	Discuss the types of bonding? Explain in detail (june-2013)
5	What is thermo elastic effects?(dec-2013)

IES COLLEGE OF TECHNOLOGY, BHOPAL

M.E./ M.Tech.(1th SEM) Assignment -1(UNIT 1 &2)
Theory of Vibration (MMMD-104)

Date of Assignment: 18/09/14   **Date of Submission:17/10/2014**

Note: Minimum 300 Word Limit for each Question.

1	Define the vibration and types of vibration. (DEC-2013)	4
2	Define the transmissibility and with expression also. (JUNE-2014)	4
3	What is principle of vibration? (DEC-2012)	4
4	What is Maxwell reciprocal theorem?(DEC-2013)	4
5	Derive expression for undumbed forced vibration with harmonic excitation.(DEC-2012)	4

IES COLLEGE OF TECHNOLOGY, BHOPAL

M.E./ M.Tech.(1th SEM) Assignment -1(UNIT 1 &2)
Computer Aided Design & Drafting (MMMD-105)

Date of Assignment: 18/09/14   **Date of Submission:17/10/2014**

Note: Minimum 300 Word Limit for each Question.

1	Discuss the graphic terminals in detail. [RGPV:2010,2009]	4
2	What is regression analysis and linear regression? [RGPV:2012,2010]	4
3	Introduce the computer hardware with figure also explain any two. . [RGPV:2011,2012]	4
4	Describe the computer software and their application in detail . . [RGPV:2010,2009]	4
5	Classify the Optimization problems and explain them. . [RGPV:2008,2011]	4