

ASSIGNMENT-1

BRANCH: CIVIL ENGINEERING

SEM: 4TH

LAST DATE OF SUBMISSION: 19/02/2015

IES COLLEGE OF TECHNOLOGY, BHOPAL

B.E. (4th SEM) ASSIGNMENT-1

ENGINEERING MATHEMATICS (BE -401)

DATE OF ASSIGN: 02/02/2015

DATE OF SUBMISSION: 19/02/2015

1	a) Define Limit. (b) What is Analytic function? (c) If $f(z)$ be regular function of z , prove that $\left\{\frac{\partial^2}{\partial x^2} + \frac{\partial^2}{\partial y^2}\right\} f(z) ^2 = 4 f(z) ^2$ or (c) show that $\int_0^{2\pi} \frac{d\theta}{a+b \cos\theta} = \int_0^{2\pi} \frac{d\theta}{a+b \sin\theta} = \frac{2\pi}{\sqrt{a^2-b^2}}$ where $a > b > 0$	
2	a) Define Harmonic function. b) Determine whether $\frac{1}{z}$ is analytic or not. (c). Find poles and order poles and residues	
3	Define contour integrations.	
4	Prove that Cauchy Riemann equation and define residues formula.	

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B.E. (4TH SEM) ASSIGNMENT-1

CONCRETE TECHNOLOGY (CE-402)

DATE OF ASSIGN: 02/02/2015

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1	Write advantages and disadvantages of concrete.	50 WORDS
2	1. Write a short note on following: (EACH 50 WORDS) a) Workability of concrete. b) Rheology of concrete. c) Shrinkage and creep of concrete. d) Compressive and tensile strength of concrete	50 WORDS
3	Explain different types of admixtures used in construction of civil structures	100 WORDS
4	What are the different types of cements used in construction? Explain the contents of cement and their effect on the properties of concrete.	400 WORDS
5	Explain the types of concrete in short.	100 WORDS
6.	Explain different types of admixtures in detail.	400 WORDS

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B.E. (4TH SEM) Assignment-1

Surveying (CE-403)

DATE OF ASSIGN: 02/02/2015

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1	What do you mean by surveying?	50 WORDS
2	2. Write a short note on following: (EACH 50 WORDS) e) Plotting. f) Traversing	50 WORDS
3	Explain EDM.	100 WORDS
4	Find the elevation of top of lighting conductor from the following data. Instrument station Reading on B.M. Angle of elevation P 0.890 30°20' RL of BM = 335m Q 0.985 15°10' PQ = 40 m Station P and Q and the top of lighting conductor are in the same vertical plain.	400 WORDS
5	Explain in detail traversing by the method of INCLUDED ANGLE.	100 WORDS
6.	A closed traverse was conducted round an obstacle and the following observation was made work out the missing quantity. SIDE LENGTH(m) AZIMUTH AB - 33°45' BC 300 86°23' CD - 169°23' DE 400 243°54' EA 268 317°30'	400 WORDS

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B.E. (4TH SEM) Assignment-1

CMT (CE-404)

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1	What are the qualities of a good building stone?(2)	50 WORDS
2	What are the various uses of stones?	50 WORDS
3	What is meant by dressing of a stones? Describe its various	100 WORDS
4	What do you mean by seasoning of timber? What are the different methods of seasoning? Explain.	400 WORDS
5	What is fly ash	100 WORDS
6.	Define tiles and explain its types	400 WORDS
7.	What is DPC	50 WORDS
8.	What are the uses of timber	100 WORDS

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CE-405 (4TH SEM) Assignment-1

DATE OF ASSIGN: 02/02/2015**DATE OF SUBMISSION: 19/02/2015**

1	Differentiate between simple and inverted U-tube differential manometer	50 WORDS
2	Define density, specific volume, weight density and specific gravity of fluid	50 WORDS
3	2 litre petrol weighs 14N. Calculate the specific weight, mass density, specific volume and specific gravity of petrol with respect to water	100 WORDS
4	Determine the resistance offered to the downward sliding of a shaft of 400mm diameter and 0.1m length by the oil film between the shaft and a bearing of ID 402mm. The kinematic viscosity is $2.4 \times 10^{-4} \text{m}^2/\text{s}$ and density is 900kg/m^3 . The shaft is to move centrally and axially at a constant velocity of 0.1m/s..	400 WORDS
5	Define types of flow?	100 WORDS
6.	Find the magnitude and direction of the resultant water pressure acting on a curved face of a dam which is shaped according to relation $y = (x^2/9)$ as shown in fig. The height of the water Retained by the dam is 10m. Consider the width of the dam as unity.	400 WORDS
7.	Define Reynold's number	50 WORDS