

MONAD UNIVERSITY
Village & Post Kastla, Kasmabad, P.O Pilkhuwa - 245101
Tehsil Hapur (U.P), India
EE Department

Course: DMAT-231, Applied Mathematics-II

Assignment No: 1

Due date of submission: 10/11/2016

Instructions

1. Write the responses to the assignment in your own handwriting & don't copy from other's assignment.
2. Submit the responses to your HoD within due date.
3. Write your name, programme, and Enrollment no. clearly at the top of the page.
4. Each question's part carries 5 marks.

Q.1

- a) Solve the following equations by matrix method:

$$2x + y + z = 1$$

$$x - 2y - 3z = 1$$

$$3x + 2y + 4z = 5$$

- b) Find the rank of the matrix.

$$A = \begin{bmatrix} 1 & 2 & 2 \\ 3 & 6 & 6 \\ 2 & 4 & 4 \end{bmatrix}$$

Q.2

- a) Find the A^{-1} . If $A = \begin{bmatrix} 2 & 3 & 4 \\ 5 & -2 & 6 \\ -3 & 7 & 0 \end{bmatrix}$.

- b) Find the characteristic equations and Eigen values of the matrix.

$$A = \begin{bmatrix} 2 & -2 & 3 \\ 10 & -4 & 5 \\ 5 & -4 & 6 \end{bmatrix}$$

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EE Department

Course: Diploma (EE)

Course: DMAT-231, Applied Mathematics-II

Assignment No: 2

Due date of submission: 10.11.2016

Instructions

1. Write the responses to the assignment in your own handwriting.
2. Submit the responses to your HoD within the due date.
3. Write your Name, Programme and Enrollment No. clearly at the top of page.

Q.1 a) Solve the D.E ($D^2 - 3D - 4$) $y = \sin(2x+1)$

b)

- I. If the roots of the auxiliary equation are real and different (2, 3, 6) then find the complete solution of the equation.
- II. If the roots of the auxiliary equation are real and equal (4, 4, 4, 2,-1) then find the complete solution of the equation.

Q.2

a) Find the value of $\int_0^1 \frac{dx}{1+x^2}$ by Simpson's 1/3rd rule if $h = 0.25$.

b) Explain the equation of Tangent and Normal.

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Tehsil Hapur (U.P), India
EE Department

Course: DIPLOMA EE- 3rd Sem.

(Transmission & Distribution of Electrical Power)- DEE-238

Assignment No: 1

Due date of submission: 10.11.2016

Instructions:-

1. Write the responses to the assignment in your own handwriting.
2. Submit the responses to your HOD within the due date.
3. Write your Name, Programme and Enrolment No. clearly at the top of this page.

Q.1

- a) Express the classification of ac transmission and distribution system based on working voltage.
- b) Enlighten the selection of working transmission voltage.

Q.2

- a) Describe the merits and demerits of corona.
- b) Define the following:-
 - i:- Regulations.
 - ii:- Efficiency.
 - iii:- Short Transmission Line.
 - iv:- Skin Effect.

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EE Department

Course: DIPLOMA EE- 3rd Sem.

(Transmission & Distribution of Electrical Power)- DEE-238

Assignment No: 2

Due date of submission: 10.11.2016

Instructions:-

1. Write the responses to the assignment in your own handwriting.
2. Submit the responses to your HOD within the due date.
3. Write your Name, Programme and Enrolment No. clearly at the top of this page.

Q.1

- a) Express the classification of transmission and distribution line supports.
- b) Enlighten the advantages and disadvantages of suspension type insulators.

Q.2

- a) Describe a three core underground cable in detail with diagram.
- b) Explain the causes of low power factor in detail.



MONAD UNIVERSITY HAPUR (UP)

Course: Diploma EE. 3 Sem. (Pro.) Subject Name: EMCE

Assignment No: 1

Due date of submission: 10.11.2016

Instruction

1. Write the responses to the assignment in your own handwriting.
2. Submit the responses to your HOD within the due date.
3. Write your Name, Program me, and Enrolment No. clearly at the top of the page.

Q.1 (a) Define the following. (1) Effort (2) Velocity ratio (3) Mechanical advantage .

(a) निम्नकोपरिभाषितकरें (1) प्रयास (2) वेगअनुपात (3) यांत्रिकलाभ

(b) Define movable pulley with figure.

(b) चित्राकेसाथचलचरखीकोपरिभाषितकरें

Q.2 (a) Define 1st system of pulley with figure.

(a) चित्राकेसाथचरखीके 1 प्रणालीकोपरिभाषितकरें।

(b) Define simple screw jack with figure.

(b) चित्राकेसाथसरलपेंचजैककोपरिभाषितकरें।



Course: Diploma EE. 3 Sem. (Pro.) Subject Name: EMCE

Assignment No: 2

Due date of submission: 18.11.2016

Instruction

1. Write the responses to the assignment in your own handwriting & don't copy from other's assignment.
2. Submit the responses to your HoD within due date.
3. Write your name, programme, and Enrollment no. clearly at the top of the page.
4. Each question's part carries 5 marks.

Q.1 (a) Describe neat sketch worm and worm wheel.

(a) चित्राकेसाथवरमतथावरमपहियाकावर्णनकीजिए।

(b) Describe neat sketch Impulse Turbine.

(b) चित्राकेसाथआवेगीटरबाइनकावर्णनकीजिए।

Q.2 (a) एकवरमतथावरमपहियेकाप्रयासग्यातकीजिएयदि

(a) Calculate effort required of worm & worm wheel if effort $W=20\text{kN}$, No. of teeth worm $T=20$, length of handle $R=20$ and Dia of Drum $d=10\text{cm}$.

(b) एकलरिवेटजोड़कीसामार्थनिकालियेंयदि

(b) Calculate strength of a single rivet joint thickness of sheet $t=15\text{mm}$, dia. of rivet $d=20\text{mm}$, pitch $p=60\text{mm}$, and shear stress $f_s=90\text{N/mm}$, compressive stress $f_c=160\text{N/mm}$, tensile stress $F_t=120\text{N/mm}$.

MONAD UNIVERSITY
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Tehsil Hapur (U.P), India
E.E Department

Course: Electrical instruments & measurement(Diploma 3rd)

Assignment No: 1

Due date of submission: 10.11.2016

Instructions

4. Write the responses to the assignment in your own handwriting.
5. Submit the responses to your HOD within the due date.
6. Write your Name, Programme and Enrolment No. clearly at the top of this page.

Q.1

a) Define and explain the following terms:

- (i) Accuracy
- (ii) precision
- (iii) Resolution
- (iv) sensitivity
- (v) stability

b) Enumerate and explain three essential forces acting on indicating type instruments.

Q.2

a) Explain and working of attraction type moving iron instruments with neat diagram.

b) Explain power and power factor measurement in three phase circuit by two wattmeter method.

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Tehsil Hapur (U.P), India
E.C Department

Course: Electrical instruments & measurement (Diploma 3rd)

Assignment No: 2

Due date of submission: 10.11.2016

Instructions

1. Write the responses to the assignment in your own handwriting.
2. Submit the responses to your HOD within the due date.
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Q.1

- a) Define and explain the types of errors possible in an instruments.
- b) Differentiate between indicating, recording, and integrating instruments. Give examples from each group with their functions.

Q.2

- a) Describe the constructional details and working of the electro-dynamometer type instrument.
- b) Explain the working of Wheatstone bridge and derive its balance condition.