



DEPARTMENT OF MECHANICAL ENGINEERING
MONAD UNIVERSITY, HAPUR

Dated:-30/09/2016

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.

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



DEPARTMENT OF MECHANICAL ENGINEERING
MONAD UNIVERSITY, HAPUR

Dated:-30/09/2016

Course: DME-234, Hydraulic and Hydraulics machine

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.
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Q.1

(a) Define the following fluid properties:

निम्नलिखित तरल गुणों को परिभाषित करें।

(i) Density (ii) Specific weight (iii) Specific gravity (iv) Specific volume

(i) घनत्व (ii) विशिष्ट भार (iii) विशिष्ट गुरुत्व (iv) विशिष्ट आयतन

(b) What is fluid? Explain types of fluids and mention all fluid in the graph.

तरल क्या है? तरल के प्रकार के बारे में बताएं और ग्राफ में सभी तरल पदार्थ का उल्लेख करें।

Q.2

(a) Distinguish between

इनके बीच अंतर ज्ञात करें।

(i) Steady flow & Unsteady flow (ii) Laminar flow & Turbulent flow (iii) Uniform flow & Non-uniform flow

(i) अपरिवर्ती प्रवाह और परिवर्ती प्रवाह (ii) स्तरीय प्रवाह और विक्षुब्ध प्रवाह (iii) समान प्रवाह और असमान प्रवाह

(b) Explain the following:

निम्नलिखित को समझाओ:

(i) U – tube manometer (ii) Differential manometer (iii) Discharge

(i) U – नली दाबमापी (ii) अवकल दाबमापी (iii) विसर्जन



DEPARTMENT OF MECHANICAL ENGINEERING
MONAD UNIVERSITY, HAPUR

Dated:-30/09/2016

Course: DMP-236, Manufacturing Process

Assignment No: 1

Due date of submission: 10/11/2016

Instructions

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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.
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Q.1

(a) Give the classification of manufacturing process.

(a) विनिर्माण प्रक्रिया के वर्गीकरण दे?

(b) Define the deformability & Fusibility.

(b) विरूपता और गलनीयता को परिभाषित करें।

Q.2

(a) Define Hot rolling and Cold rolling.

(a) गर्म रोलिंग और कोल्ड रोलिंग परिभाषित करें।

(b) Write shorty notes on:-

(1) Hand forging. (1) हाथ फोर्जिंग

(2) Banding. (2) बैंडिंग



DEPARTMENT OF MECHANICAL ENGINEERING
MONAD UNIVERSITY, HAPUR

Dated:-30/09/2016

Course: DME-238, Mechanical Engineering Drawing

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) Write any 10 drawing instruments name.

(a) किसी भी 10 ड्राइंग उपकरणों नाम लिखें?

(b) Draw any 3 sketch of foundation bolts.

(b) नींव बोल्ट के किसी भी 3 स्केच ड्रा कीजिए।

Q.2

(a) Draw figure of material conventions.

(a) सामग्री रुढियों सम्मेलनों का चित्र खींचिए।

(b) Differentiate between first angle projection and third angle projection with sketch.

(b) चित्र सहित पहले कोण प्रक्षेपण और तीसरे कोण प्रक्षेपण के बीच क्या अंतर है।



DEPARTMENT OF MECHANICAL ENGINEERING
MONAD UNIVERSITY, HAPUR

Dated:-30/09/2016

Course: DME-239, Computer Application

Assignment No: 1

Due date of submission: 10/11/2016

Instructions

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

Q.1

(a) Define the term "COMPUTER"? Draw its block diagram with its characteristics?

(a) कम्प्यूटर" शब्द परिभाषित करें? विशेषताओं के साथ रेखा-चित्र बनाओ।

(b) What do you mean by "MEMORY" in Computer? Explain its types with examples?

(b) कम्प्यूटर में "स्मृति" से क्या मतलब है? उदाहरण के साथ उसके प्रकार के बारे में बताएं।

Q. 2

(a) Define the following terms with appropriate examples:

(a) उचित उदाहरण के साथ निम्नलिखित को परिभाषित करें।

(i) Operating System

(ii) Bit, Byte, Word

(iii) VDU (Visual Display Unit)

(iv) DOS (Disk Operating System)

(b) Convert following number into required base form.

(b) आधार रूप में निम्नलिखित संख्या में कनवर्ट करें।

(i) $(5672)_8 = (?)_{10}$

(ii) $(7874)_{10} = (?)_2$

(iii) $(10FA)_{16} = (?)_{10}$

(iv) $(1076)_9 = (?)_{11}$