



MONAD UNIVERSITY HAPUR (UP)
(DEPARTMENT OF AGRICULTURE SCIENCE & ENGINEERING)

Programme : Diploma (Ag.Engg.)
Course : Hydraulics
Course Code : DAGE-211
Assignment No : 1

Due date of submission: 11.09.2017

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, Programme, and Enrolment No. clearly at the top of the page.

Q.1.

- (a) Define viscosity and kinematic viscosity. Explain Newton's law of viscosity.
- (b) State and prove Pascal's law.

Q2.

- (a) Write the difference between path line and stream line.
- (b) Differentiate between laminar and turbulent flows. What are the importances of Reynolds number with reference to fluid flow?



MONAD UNIVERSITY HAPUR (UP)
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Programme : Diploma (Ag.Engg.)
Course : Basic Soil Science
Course Code : DAGE-212
Assignment No : 1

Due date of submission: 11.09.2017

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, Programme, and Enrolment No. clearly at the top of the page.

Q.1:-

- (i) What is soil profile? Explain with suitable diagram.
- (ii) How many types of soil?

Q.2:-

- (i) Define Soil. "Soil as a medium of plant growth", explain it.
- (ii) Explain the importance of soil particles in agriculture.



MONAD UNIVERSITY HAPUR (UP)
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Programme : Diploma (Ag.Engg.)
Course Name : Farm Power Engineering & Non Conventional Sources of Energy
Course Code : DAGE-214
Assignment No : 1
Due date of submission: 11.09.2017

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, Programme, and Enrolment No. clearly at the top of the page.

Q.1.

- (a) Explain the sources of farm power.
- (b) Explain the working principle of 4 stroke engine with help of suitable diagram.

Q2.

- (a) Write down the difference between auto cycle engine and diesel cycle engine.
- (b) For a 4-Stroke four cylinder engine, whose cylinder diameter is 30 cm, stroke length is 40 cm, clearance volume is 4500 cm^3 , engine speed is 2400 rpm, mean effective pressure is 7.0 kg/cm^2 and mechanical efficiency is 80%, Calculate:-
 - (i) I.H.P.
 - (ii) B.H.P.
 - (iii) Compression ratio
 - (iv) Swept Volume



MONAD UNIVERSITY HAPUR (UP)
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Programme : Diploma (A.G)
Course Name : Agricultural Process Engineering
Course code : DAGE-215
Assignment No : 1
Due date of submission: 11.09.2017

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, Programme, and Enrolment No. clearly at the top of the page.

Q.1

- (a) Define agriculture processing and write its importance.
- (b) Explain the physical, chemical and biological properties of agriculture products.

Q2.

- (a) Define milling. Discuss about milling process.
- (b) Define the storage and explain the improved storage structure.

