Q.28 What is the scope of mechanization?

Q.29 Explain the working principle of Potato digger.

Q.30 Describe the effect of centrifugal tension.

Q.31 What are the conditions for maximum power transmission.

Q.32 What is the difference between seed drill and planter?

Q.33 Write down the objectives of tillage.

Q.34 Describe the working of zero till drill.

Q.35 What are different types of balancing?

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x10=20)

Q.36 What are secondary tillage implements? Explain the constructional detail and working principle of Disc Harrow.

Q.37 Explain the constructional detail of seed drill? Also explain different types of seed metering mechanisms used in seed drills.

Q.38 Describe the constructional detail and working principle of paddy transplanter. Also explain preventive maintenance of planters.

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4th Sem / Agri
Subject:- Farm Machinery and Implements - I

Time : 3Hrs. M.M. : 100

SECTION-A

Note: Multiple choice questions. All questions are compulsory (10x1=10)

Q.1 The plough used to cut through hard soils by means of a no. of narrow tynes.

a) Chisel Plough b) Disc Plough
c) Subsoiler d) M.B. Plough

Q.2 A method of correcting or eliminating unwanted forces

a) Vibration b) Tension
c) Balancing d) Centrifugal force

Q.3 Tilt angle varies from

a) 10 to 15^0 b) 15 to 25^0
c) 25 to 30^0 d) 30 to 35^0

Q.4 The diesel engine is an example of which of the following.

a) Electric Power b) Human Power
c) Farm Power d) Mechanical Power

Q.5 It is a part of a machine which has been manufactured without the operation of assembly.

a) Element b) Link
c) Bearing d) Joint

Q.6 The method planting already prepared seeds in field
a) Transplanting b) Seeding
c) Broadcasting d) Drilling

Q.7 The mechanical manipulation of soil to provide favourable conditions for crop production is
a) Ploughing b) Tillage
c) Interculturing d) Harrowing

Q.8 The application of engineering and technology in agricultural operations to do a job in a better way to improve productivity.
a) Standardization
b) Mechanization
c) Advancement
d) Engineering Mechanics

Q.9 The machine/implement used for sowing larger seeds.
a) Seed drill b) Planter
c) Ridger seeder d) Digger

Q.10 The maximum clearance between the landside and a horizontal plane touching point of share at its gunnel side and heal of landside.
a) Horizontal clearance
b) Vertical suction
c) Horizontal suction
d) Vertical clearance

SECTION-B

Note: Objective type questions. All questions are compulsory. (10x1=10)

Q.11 Define vertical suction.

Q.12 Give two types of kinematic pairs.

Q.13 State the function of wheel hand hoe.

Q.14 Give two benefits of using rotavator.

Q.15 Give classification of farm machines according to hitching.

Q.16 Name two types of pipe joints.

Q.17 What is the use of balancing a machine.

Q.18 Name two types of plough accessories.

Q.19 Write two methods of ploughing.

Q.20 Enlist two types of harrows.

SECTION-C

Note: Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

Q.21 What are the harmful effects of vibration and their remedies in machines?

Q.22 How disc plough is better than mould board plough?

Q.23 What are different methods of sowing?

Q.24 What are the benefits of using rotavator?

Q.25 Explain position control hudraulic system in brief.

Q.26 What are different types of furrow openers?

Q.27 Define disc angle and tilt angle of disc plough.