Q.34 Explain the working principle of potato digger.

Q.35 What are different types of furrow openers?

SECTION-D

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

Q.36 What is Harrowing? Describe the constructional details and working principle of Disc harrow.

Q.37 Describe the working principle and basic components of hydraulic system. Also explain its different types in brief.

Q.38 Describe the constructional detail of seed drill? Also explain different types of seed metering mechanisms used in seed drills.

Roll No. .....

4th Sem.

Branch : Agri

Sub.: Farm Machinery & Implements-1

Time : 3 Hrs. M.M. : 100

SECTION-A

Note: Multiple type Questions. All Questions are compulsory. (10x1=10)

Q.1 An implement that cuts the soil to a shallow depth for smoothening and pulverizing the soil and control weeds.

a) Plough b) Harrow

c) Cultivator d) Ridger

Q.2 Disc angle varies from

a) 20 to 25^0 b) 25 to 30^0

c) 30 to 35^0 d) 40 to 45^0

Q.3 The machine / implement used for sowing larger seeds.

a) Seeds drill b) Planter

c) Ridger seeder d) Digger

Q.4 The maximum clearance under the landside and the horizontal surface in the working position

a) Horizontal clearance b) Vertical Suction

c) Horizontal Suction d) Vertical clearance

Q.5 The method of planting already prepared seeds in field

a) Transplanting b) Seeding

c) Broadcasting d) Drilling

Q.6 A method of correcting or eliminating unwanted forces

a) Vibration b) Tension

c) Balancing d) Centrifugal force

Q.7 It is a part of machine which has been manufactured without the operation of assembly.

a) Element b) Link

c) Bearing d) Joint

Q.8 The implement used for intercultivation

a) Wheel hand hoe b) Plough

c) Ridger seeder d) Digger

Q.9 The mechanical manipulation of soil to provide favourable conditions for crop production is

a) Ploughing b) Tillage

c) Interculturing d) Harrowing

Q.10 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

SECTION-B

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

Q.11 Define centrifugal tension.

Q.12 Give the function of furrow opener.

Q.13 Give the function of chisel plough.

Q.14 What is the use of drawbar?

Q.15 Name two types of joints used in agriculture machinery.

Q.16 Define vertical suction.

Q.17 Name two types of plough accessories.

Q.18 Enlist two types of harrows.

Q.19 Give classification of farm machines according to hitching.

Q.20 Give two benefits of using rotavator.

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 vibrations in machines and their remedies?

Q.22 Explain the routine maintenance of farm machinery.

Q.23 Explain the constructional detail and working principle of Rotavator.

Q.24 Give two differences between mould board plough and disc plough.

Q.25 Define disc angle and tilt angle of disc plough.

Q.26 Write down the objectives of tillage.

Q.27 Describe the effect of centrifugal tension.

Q.28 What are different types of balancing?

Q.29 What are the conditions for maximum power transmission?

Q.30 Classify farm implements according to hitching.

Q.31 Write a short note on transplanting.

Q.32 What are different methods of sowing?

Q.33 Write down the difference between seed drill and planter.