Q.28 What are the conditions for maximum power transmission?

Q.29 Explain position control hydraulic system in brief.

Q.30 What are different types of seed metering mechanisms?

Q.31 What are the benefits of using rotavator?

Q.32 What is the function of bearing in farm machines?

Q.33 Give classification of farm machinery according to hitching system.

Q.34 What is the use of zero tillage machinery?

Q.35 Explain the routine maintenance of farm machinery.

SECTION-D

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

Q.36 Explain the constructional details and working principle of Seed - cum - fertilizer drill. Also describe different types of furrow openers used on seed drill.

Q.37 Describe the constructional detail and working principle of paddy transplanter. Also explain preventive maintenance of planters.

Q.38 What are secondary tillage implements? Explain the constructional detail and working principle of Disc Harrow.

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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 method of planting in which row to row and plant to plant distance is uniform.
a) Check row planting b) Dibbling
c) Hill dropping d) Drilling

Q.2 The diesel engine is an example of which of the following.
a) Electric Power b) Human Power
c) Farm Power d) Mechanical Power

Q.3 A method of correcting or eliminating unwanted forces
a) Vibration b) Balancing
c) Tension d) Centrifugal force

Q.4 The process of placing the seeds in holes made in seed bed
a) Dibbling b) Drilling
c) Broadcasting d) Seeding

Q.5 When two kinematic links are connected in such a way that their relative motion is constrained, they form.

a) kinematic pair b) Link
c) Joint d) Element

Q.6 The application of engineering and technology in agricultural operations to do a job is
a) Standardization
b) Mechanization
c) Advancement
d) Engineering Mechanics

Q.7 The power available at farm for different farming operations.
a) Electric Power b) Human Power
c) Farm Power d) Mechanical Power

Q.8 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

Q.9 Tilt angle varies from
a) 10 to 15° b) 15 to 25°
c) 25 to 30° d) 30 to 35°

Q.10 A machine used for sowing wheat in the freshly harvested rice field without any extra tillage operation.
a) Seed drill b) Strip till drill
c) No till drill d) Zero till drill

SECTION-B

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

Q.11 Define Disc angle.

Q.12 What is the use of balancing a machine?

Q.13 Name two types of pipe joints.

Q.14 Give the function of wheel hand hoe.

Q.15 State two methods of ploughing.

Q.16 Define horizontal suction.

Q.17 What is the use of three point linkage.

Q.18 Give two types of kinematic pairs.

Q.19 Name two types of couplings used in machinery.

Q.20 What is the function of subsoiler.

SECTION-C

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

Q.21 What are different methods of sowing?

Q.22 What is the scope of mechanization?

Q.23 Explain the working principle of potato digger

Q.24 What is the difference between disc plough and mould board plough?

Q.25 What are the harmful effects of vibrations in machines?

Q.26 What is the difference between seed drill and planter?

Q.27 What are different types of kinematic pair?