



BRAINWARE UNIVERSITY

Term End Examination 2023-2024

Programme – B.Sc.(Ag)-Hons-2022

Course Name – Farm Machinery and Power

Course Code - CC-BAG375(T)

(Semester III)

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Brainware University
Barasat, Kolkata -700125

Full Marks : 50

Time : 2:0 Hours

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A

(Multiple Choice Type Question)

1 x 20=20

1. Choose the correct alternative from the following :

(i) Infer the correct option : In 4-stroke engine there is one power stroke for every _____ revolutions of the crank shaft

- a) 1
b) 2
c) 3
d) 4

(ii) Infer one instrument that is not a hand tools?

- a) M.B Plough
b) Shovel
c) Spade
d) Mattock

(iii) Infer one tool that is not a tractor drawn tillage tools?

- a) Cultivator
b) Auger plough
c) Harrow
d) Plank

(iv) Infer one tool that is not the secondary tillage tool?

- a) Disc plough
b) Disc harrow
c) M.B Plough
d) None of these

(v) Show the correct option : What is the Vertical section of plough influences

- a) Pulverization
b) Depth of cut
c) Width of cut
d) Direction of pull

(vi) Relate the two primary tillage equipments are

- a) M.B plough and disc harrow
b) Disc plough and disc harrow
c) Disc harrow and cultivator
d) M.B Plough and disc plough

(vii) Demonstrate the correct option : The mowers are designed to cut

- a) Wheat
b) Paddy
c) Mustard
d) Grasses

(viii) Infer the correct option : Working width of disc plough can be increased by

- a) Disc angle
b) Gang angle
c) Disc section
d) Horizontal section

(ix) Show a option that is known as Correcting the seed rate

- a) Standarization
c) Calibration
- b) Filtration
d) Testing
- (x) Interpret the tillage pattern
- a) Head land pattern
c) Casting
- b) Gathering
d) All of these
- (xi) Infer a option that is not relate to spark ignition engine
- a) Spark plug
c) Fuel injector
- b) Carburetor
d) Ignition coil
- (xii) Relate the most effective air cleaner in the case of diesel engine?
- a) Whirl type
c) Wet type
- b) Oil bath type
d) Dry type
- (xiii) Interpet the correct option : A carburettor is used to supply _____
- a) Petrol,air and lubricating oil
c) Petrol and lubricating oil
- b) Air and diesel
d) Petrol and air
- (xiv) Illustrate what happen If petrol engine is used in diesel engine
- a) Low power will be produced
c) Higher knocking will occur
- b) Efficiency will be low
d) Black smoke will be produced
- (xv) Show one type of engine there has maximum compression ratio
- a) Diesel engine
c) Gas engine
- b) Petrol engine
d) All of these
- (xvi) Demonstrate the correct answer : The heart of the tractor engine is ____
- a) Clutch
c) Gear box
- b) Transmission gear
d) Differential
- (xvii) Interpet the correct option : Tillage is the mechanical manipulation of the _____
- a) Soil
c) water
- b) Crop
d) Air
- (xviii) Infer one scientist name that was invented a traction engine or tractor
- a) J.watt (1894)
c) N.Hudson (1798)
- b) Rodolph(1895)
d) H.harries(1890)
- (xix) Demonstrate the correct answer : Thermostats are designed to start opening at ____ to ____ celcius
- a) 82°-85°C
c) 70°-72°C
- b) 70°-75°C
d) 72°-78°C
- (xx) Infer the correct temprature of optimum engine temprature is
- a) 60°C
c) 100°C
- b) 82°C
d) 120°C

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Group-B

(Short Answer Type Questions)

2.5 x
10=25

2. Explain about Hydraulic control system (2.5)
3. Illustrate about different intercultural equipment's (2.5)
4. Explain about seed cum fertilizer drill (2.5)
5. What are the functions of sprayers? Explain its application (2.5)
6. Briefly explain about the engine components (2.5)
7. Briefly explain about the working principle of diesel engine (2.5)
8. How do use discuss about scope of farm mechanization? (2.5)
9. Briefly explain the advantages of using a disc plough for land preparation (2.5)
10. Distinguish between seed drill and seed cum fertilizer drill (2.5)
11. Distinguish between knapsack sprayer and power sprayer (2.5)

OR

Distinguish benefits and limitations of farm mechanization

(2.5)

Group-C

(Long Answer Type Questions)

5 x 1=5

12. Discuss about the power transmission system of the tractor

(5)

OR

Discuss about the mouldboard plough implement

(5)

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