

2022

B. Sc. (Honours) in AGRICULTURE

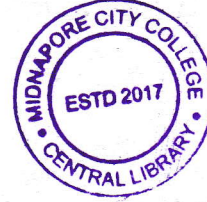
3rd Semester Examination

Farm Machinery and Power

PAPER — AGS-305

Full Marks : 50

Time : 2 hours



The figures in the right-hand margin indicate marks.

*Candidates are required to give their answers
in their own words as far as practicable.*

Illustrate the answers wherever necessary.

Answer from **all** the Groups as directed.

GROUP—A

1. Answer *any five* questions : $2 \times 5 = 10$

(a) Name the major components of tractor engine.

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(Turn Over)



(2)

- (b) Write the main functions of clutch and carburetor.
- (c) What type of clutch is used in Tractor Engine?
- (d) What is SFC? How much fuel is consumed in a diesel engine?
- (e) What are the advantages of zero tillage?
- (f) What are the main functions of a combine harvester thresher?
- (g) Name the important parts of a combine harvester thresher.
- (h) What is the advantage of knapsack type sprayer?

GROUP—B

2. Answer any **four** questions : 5×4=20

- (a) Describe the hydraulic break system.
- (b) What are the basic differences between 4-stroke and 2-stroke IC engines?
- (c) What is the firing order in case of 4-stroke 4-cylinder engine?
- (d) What are the functions of mower and reaper?

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(Continued)

(3)

- (e) What are the functions of gang angle and toe camber angle?
- (f) Write short notes on disc angle and throat clearance.

GROUP—C

3. Answer any **two** questions :

- (a) Describe the working principle of 4-stroke diesel engine with a neat sketch. 10
- (b) What are the differences between SI engine and CI engine? 10
- (c) Write short notes on the following :
 - (i) Differential lock
 - (ii) DC liver
 - (iii) Three-point linkage
 - (iv) Wheel Base
- (d) What are the main objectives of tillage? What are the different components of MB plough? 6+4=10

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B.Sc./3rd Sem/AGS-305/23

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