Printed Pages: 1 NAG-023

(Following Paper ID and Roll No. to be filled in your Answer Books)											
PAPER ID:	Roll No.										

#### **B.TECH.**

# Theory Examination (Semester-VI) 2015-16 PRODUCTION TECHNOLOGY & AGRICULTRE MACHINERIES

Time: 3 Hours Max. Marks: 100

**SECTION: A** 

## Q.1 Attempt all parts. Write answer of each part in short.

2\*10=20

- a) Enlist the various material used in development of different parts of agricultural machinery.
- b) What is structural steel?
- c) Define hardness of material.
- d) Draw stress-strain cure for mild steel.
- e) What is honing?
- f) Enlist the name of atleast five agricultural machinery manufacturers.
- g) What is EDM (Electro Discharge Machinary)?
- h) What is atomization?
- i) Define milling & crushing.
- j) Write the objective of heat treatment process.

### **SECTION: B**

## Q.2 Attempt any five Questions from this section:

5\*10=50

- a) What do you mean by powder metallurgy? Draw the process flow chart and also write advantages and limitations.
- b) Explain annealing and normalizing process.
- c) What is carborizing? Expail the different methods of carborizing.
- d) What is chemical vapour deposition (CVD)? Enlist different types of CVD process. Explain any one.
- e) Discuss the different factors for installation of plant layout.
- f) What is quality management? Explain quality conformance through second and third party inspection.
- g) Explain hot working and cold working process..
- h) What do you mean by tool-radius compensation?

#### **SECTION: C**

### Attempt any two questions from this section:

2\*15=30

- Q.3 a) What do you mean by CNC code syntax? Explain different types of CNC codes.
  - b) What do you mean by loop and unconditional jump? Explain with suitable examples.
- Q.4 a) What do you mean by economic feasibility of project report?
  - b) Explain needs and chronological development of cutting tools materials. Also explain automatic tool changer.
- Q.5 a) What are advance framulacturing confiques? Explain manufacturing system.
  - b) Write short notes on any two of the following-
  - (i) Jigs and fixtures
  - (ii) EDM principle
  - (iii) Electrolysis