# 21415 3 Hours / 100 Marks

**Instructions**: (1) All Questions are *compulsory*.

- (2) Answer each next main Question on a new page.
- (3) Figures to the right indicate full marks.
- (4) Assume suitable data, if necessary.

Marks

#### 1. Answer any TEN:

 $10 \times 2 = 20$ 

- (a) Name seed processing industries in India.
- (b) Why is seed cleaning necessary?
- (c) State 'uses' of 'length separator'.
- (d) Explain function of a 'stoner'.
- (e) Draw a labelled 'diagram' of a 'roll mill'.
- (f) Write utility of a 'magnetic separator'.
- (g) State 'uses' of 'air separator'.
- (h) State 'factors' affecting electro-static separation.
- (i) State 'uses' of a 'spiral separator'.
- (j) Write probable 'causes' of 'discrepancies' of seed test results.
- (k) Name equipments which a seed testing laboratory should have.
- (l) Explain meaning of 'field standards'.
- (m) Write 'care' required to be taken in seed 'storage'.
- (n) State 'importance' of 'demand forecast'.

## 2. Answer any FOUR:

 $4 \times 4 = 16$ 

- (a) Explain working 'principle' of 'air screen cleaner'.
- (b) Write 'operating sequence' of a specific gravity separator.
- (c) Explain 'factors' affecting magnetic cleaning of seeds.
- (d) (i) Name 'types' of 'polishes'.
  - (ii) State 'uses' of polishes.
- (e) Describe 'working' of a 'slurry treater'.
- (f) Describe 'working' of a 'chain conveyor'.

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### 3. Answer any FOUR:

 $4 \times 4 = 16$ 

- (a) Explain 'principle' of 'seed processing'.
- (b) Describe a specific gravity separator.
- (c) Describe 'working' of a 'roll-mill'.
- (d) Draw a labelled diagram of a 'vibrating separator'.
- (e) Write 'specific standards' for any one crop.
- (f) Write 'constructional features' of a good 'warehouse'.

#### 4. Answer any FOUR:

 $4 \times 4 = 16$ 

- (a) Describe 'working' of 'Bukhorn machine'.
- (b) Describe method of 'adjustment' of a cylindrical screen separator.
- (c) Write 'constructional features' of an 'inclined draper'.
- (d) Explain 'operating principle' of an electronic 'colour separator'.
- (e) Explain 'precautions' to be taken in 'seed treatment'.
- (f) Describe 'use' of a 'bucket elevator'.

## 5. Answer any FOUR:

 $4 \times 4 = 16$ 

- (a) How is air screen cleaner, 'installed'?
- (b) Write 'safety precautions' to be taken while operating 'specific gravity separator'.
- (c) Explain 'operating principle' of a 'pneumatic separator'.
- (d) Describe an 'electronic separator'.
- (e) Write stepwise 'procedure' to determine 'moisture content' of seeds.
- (f) Write about 'seed distribution system'.

## 6. Answer any FOUR:

 $4 \times 4 = 16$ 

- (a) State 'factors' on which 'screen effectiveness' and 'cleaning efficiency' depend.
- (b) Write 'constructional features' of a 'disc separator'.
- (c) Write 'operating principle' of a 'stoner'.
- (d) Describe 'working' of an 'scalping aspirator'.
- (e) Why is seed treatment, needed?
- (f) Compare Semiautomatic and automatic weighing machine.