



Meen.1101

KERALA AGRICULTURAL UNIVERSITY
B.Tech. (Food Engg.) 2017 Admission
I Semester Final Examination-January-2018

Production Technology (2+1)

Marks:50

Time: 2 hours

(10x1=10)

I Fill in the blanks:

- 1 In steels carbon forms-----solid solution with iron atoms.
- 2 Conversion of coarse grained steel into fine grained steel by heating cooling cycle is called -----
- 3 -----allowance facilitates easy removal of pattern from the mould.
- 4 -----is a casting defect due to lack of fluidity of the cast metal.
- 5 -----added to aluminium increases fluidity during casting.

State True or false

- 6 In straight polarity work piece is connected to the positive terminal of the power supply
- 7 TIG welding uses a consumable electrode.
- 8 Negative rake angle decreases tool strength.
- 9 In up milling the work is fed in the direction of cutter rotation.
- 10 Tapping is used to produce holes in metals.

II Write Short notes on ANY FIVE of the following

(5x2=10)

- 1 What is cementite?
- 2 Explain creep.
- 3 What is the purpose of adding chromium to steel?
- 4 What is lapping?
- 5 What are the advantages of forging over casting?
- 6 What are the advantages of abrasive water-jet machining?
- 7 What are the different types of chips formed during metal cutting ?

III Answer ANY FIVE of the following

(5x4=20)

- 1 With neat sketches explain the differences between up-milling and down milling process.
- 2 Explain the difference between cold working and hot working of metals
- 3 Explain the different allowances used for the patterns.
- 4 Explain the steps involved in investment casting.
- 5 Explain the functions of different angles in a lathe cutting tool
- 6 Explain a fly press used for sheet metal working.
- 7 Differentiate between oblique and orthogonal cutting.

IV Write an essay on ANY ONE of the following

(1x10=10)

- 1 With neat sketches explain any two resistance welding processes.
- 2 Explain with sketches the different methods for taper turning in lathe. What are the applications of each method ?
