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Reg. No. :

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Question Paper Code: 53702

B.E./B.Tech. DEGREE EXAMINATION, NOV 2018

Third Semester

Mechanical Engineering

15UME302 -MANUFACTURING TECHNOLOGY-I

(Regulation 2015)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 1 = 10 Marks)

- The pattern used for mass production is CO1- R
 - Match plate pattern
 - Split pattern
 - Skeleton pattern
 - Single plate pattern
- Which of the following defects in casting can occur when there is low permeability in sand? CO1- R
 - Rough surface
 - Blow holes
 - Hot tears
 - Drop
- Which of the following welding process uses non-consumable electrode? CO2-U
 - Gas tungsten arc welding (TIG)
 - Shield metal arc welding
 - Carbon di oxide shield welding
 - Gas metal arc welding
- Heat is created by the chemical reaction in CO2- U
 - Resistance welding
 - Oxyacetylene welding
 - Tungsten arc welding
 - Thermit welding
- The cold working of metal is accomplished at CO3- U
 - Below recrystallization temperature
 - Above recrystallization temperature
 - Recrystallization temperature
 - Any of the above

- (b) Explain the resistance spot welding process with a neat sketch. CO2- App (16)
State its application and limitations.
18. (a) With neat sketches explain the following forging operations with CO3-U (16)
examples.
(i) Upsetting
(ii) Bending
(iii) Swaging
(iv) Fullering
- Or
- (b) (i) Distinguish between wire drawing and tube drawing with a CO3- U (8)
neat sketches.
(ii) Explain the types of rolling mills with neat sketches. CO3- U (8)
19. (a) Explain the various metal forming operations performed by press CO4- U (16)
with suitable example.
- Or
- (b) With a neat sketch explain about explosive forming process. CO4- U (16)
State its advantages and limitations.
20. (a) With neat sketches explain injection moulding process. CO5- U (16)
State its advantages and limitations..
- Or
- (b) Explain the working principle of blow moulding process. CO5- U (16)
State its advantages and limitations.

