

S.E. (Mech) (Sem-III) (CBC45) CR-20-21 (C Scheme)

Duration: 3 Hours

Total Marks- 80

- N.B.** 1) First Question (Q.1) is Compulsory.  
2) Attempt any 3 questions from the remaining questions.  
3) Figures to the right indicate full marks.  
4) Proportionate and labeled free-hand sketches would do.

**Q1. Write a short note on (Any four)****20**

- (a) Types of Risers.
- (b) Hot working process.
- (c) Hybrid Joining process.
- (d) Thermoplastic plastic.
- (e) Internet of things (IoT) in manufacturing.

**Q2. (a) Write short note on broaching machine and compare of lapping and honing operation.****10**

- (b) Write difference between arc welding and gas welding.

**10****Q3. (a) What are the five major steps in casting? Discuss casting defects with causes and remedies.****10**

- (b) Explain various sheet metal operations with neat sketches.

**10****Q4. (a) Explain various super finishing operations.****10**

- (b) Explain steps involved in powder metallurgy process.

**10****Q5. (a) Describe gear milling process.****10**

- (b) Explain polymer moulding techniques.

**10****Q6. (a) What are different sheet metal operations? Explain briefly any two of them.****10**

- (b) Explain cloud manufacturing.

**10**