

B.TECH SEM - III (2007 COURSE) (PRODUCTION ENGG.) :

SUMMER - 2018

SUBJECT: MANUFACTURING PROCESSES-I

Day: **Thursday**
Date: **24/05/2018**

S-2018-2590

Time: **02.30 PM TO 05.30 PM**
Max Marks: 80

N.B:

- 1) Q. No. 1 and Q. No. 5 are **COMPULSORY**. Out of the remaining Attempt any **TWO** questions from each section.
 - 2) Figures to the right indicate **FULL** marks.
 - 3) Both the sections should be written in **SEPARATE** answer book.
 - 4) Use of Non- Programmable **CALCULATOR** is allowed.
 - 5) Assume suitable data if **NECESSARY**.
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SECTION-I

- Q.1** a) What is Pattern? Explain any two types of patterns with neat sketch. (05)
b) Discuss with sketch different pouring equipments used in casting process. (05)
c) Explain use of robots in foundry. (04)
- Q.2** a) Discuss steps involved in core making process. (07)
b) Explain 'Moisture content test' in detail. (06)
- Q.3** a) Explain with neat sketch' Coreless type induction furnace. Give its typical application. (07)
b) What are the different defects in casting? State its remedies. (06)
- Q.4** a) Explain with sketches how a shell mould is made. List the unique advantages of making casting in shell mould. (07)
b) Write a note on 'Salvaging of Casting.' (06)

SECTION-II

- Q.5** a) What do you understand by metal transfer in welding? (05)
b) Explain foot- operated rocker-arm spot welding machine. (05)
c) Write a note on Welding of dissimilar welding. (04)
- Q.6** a) Describe with neat sketch' Submerged arc welding process. (07)
b) Compare MIG & TIG welding process. (06)
- Q.7** a) Explain with neat sketch projection welding. State its advantages and applications. (07)
b) Discuss High frequency welding of tubes. Give its applications. (06)
- Q.8** a) Explain destructive & non- destructive test to determine the quality of weld. (07)
b) Explain laser beam welding state its merits & demerits. (06)

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