

NATIONAL INSTITUTE OF TECHNOLOGY KURUKSHETRA
THEORY EXAMINATION

Question Paper

Roll No.....

Month and year of examination: **December, 2019**

Programme: **B.Tech.**

Subject: **Engineering Practice**

Semester: **2nd**

Course Code: **MEIR-11**

Maximum Marks: **50**

Time Allowed: **3 hours**

Total number of pages: **1**

- Unless stated otherwise, the abbreviations/symbols have their usual meaning in context of the subject.
- The Candidates, before starting to write the solutions, should check the question paper for any discrepancy, and also ensure that they have been delivered the question paper of right course no. and right subject title.
- Clearly state the denotations/notations used, if any.
- *Diagrams should be well labeled and drawn properly using the drawing instruments.*
- *Attempt all the parts of a question at one place maintaining their sequence.*
- *Be precise and don't provide unnecessary information that has not been asked.*

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1. (a) What safety measures should be assured during material handling? (2)
(b) Write a short note on stainless steel. (2)
(c) Explain the different types of taps that are used for tapping. (2)
(d) Draw a well labeled diagram of combination set. (2)
(e) Explain the function of depth gauge with well labeled diagram. (2)
 2. (a) Explain the following chisels with their diagrams: (4)
(i) Dovetail
(ii) Mortise
(b) Draw a well labeled diagram of jack plane. (2)
(c) What are the advantages of wood? (2)
(d) Give at least two examples of soft as well as hard woods. (2)
 3. (a) Determine the angle at which the compound rest would be swiveled for cutting a taper on a workpiece having a length of 180 mm and outside diameter 80 mm. The smallest diameter on the tapered end of the rod should be 50 mm and the required length of the tapered portion is 100 mm. (2)
(b) Write any four differences between three jaw chuck and four jaw chuck. (2)
(c) Explain the various parts of lathe's carriage. (4)
(d) Write a short note on lathe's cutting tools. (2)
 4. (a) Depict the working of pin lift (push off) moulding machine by drawing the diagrams only? (2)
(b) What is ramming? How it can be done? (2)
(c) Describe the working of electric arc furnace with well labeled diagram. (3)

(d) Describe the functions of following foundry tools:

- (i) Lifter
- (ii) Swab
- (iii) Draw screw

(3)

5. (a) How brazing differs from braze welding?

(3)

(b) What are the major advantages of welding?

(2)

(c) Which criterion is used for classifying the welding techniques?

(1)

(d) Draw a diagram showing the various components of arc welding set-up.

(2)

(e) Write the characteristics of carburizing (reducing) flame.

(2)

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