

- Èv[2] ò È] À öĒā ō ħēē(È v^afēā °ōō)ūīēīēīēsō Edēhēīēō Edē³vēō Pāēēō, āēē ē[®]ū sēsēēē Eō[®]ū.

(ENGLISH)

[TIME ALLOWED—3 HOURS]

(MARKS—100)

**BASIC MACHINE SHOP PRACTICE, METALS AND SURFACE FINISHING
TECHNIQUE (THEORY-III)***Instructions:—* (1) Attempt *all* questions.(2) Draw a neat diagram wherever *necessary*.(3) Figures to the *right* side indicates *full* marks.**Marks**1. (a) Fill in the blanks (any *five*) :—

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(i) Lathe bed have types.

(ii) In the grinding wheel is used for bonding purpose.

(iii) For the application putty and scrapping of color, is used.

(iv) The angle of metric thread is degree.

(v) Chasers are used for thread cutting on lathe machine.

(vi) Lathe carriers are also known as

(b) State *true* or *false* (any *five*) :—

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(i) Head stock is the main part of lathe.

(ii) Engine lathe means centre lathe.

(iii) Surface coating should be done to protect from rusting.

(iv) Corundum is ore of copper.

(v) Taper ring gauge is used to check external taper.

(vi) Size of center drill is selected on basis of the diameter of the workpiece.

(c) State following terms (any *five*) :—

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(i) ISI

(iv) UTM

(ii) Coolant

(v) Milling

(iii) Buffing

(vi) Dead Centre.

(d) Match the following pairs (any *five*) :—

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'A' Group**'B' Group**

(i) Lathe

(a) Steel

(ii) Grinding wheel

(b) Annealing

(iii) Spark test

(c) Chamfering

(iv) Heat treatment

(d) Cast Iron

(v) Painting

(e) Abbreasive

(f) Putti.

[Turn over

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Marks

4. Give the answers (any *two*) :— 16
- (a) Write the properties of ferrous and non ferrous metals.
 - (b) Which safety precaution should be taken at the time of grinding.
 - (c) What are the causes of accident in workshop ? State general safety rules in workshop.
 - (d) List different operations which can be performed on lathe machine. Describe any two operations.
3. Solve the following questions (any *two*) :— 16
- (a) Explain process of up milling and down milling.
 - (b) What are the properties of metal.
 - (c) What is mean by coolant ? Explain types of it.
 - (d) Write types of primer and its application.
4. Give the answers in detail (any *two*) :— 16
- (a) Write the procedure of chemical cleaning.
 - (b) Give the necessity of Heat – treatment.
 - (c) Describe the properties of cast iron.
 - (d) Why primer is used before painting.
5. Write short notes (any *four*) :— 16
- (a) Calculation of taper
 - (b) Polishing
 - (c) Carriage of Lathe Machine
 - (d) Specification of Grinding Wheel
 - (e) Tool Post
 - (f) Painting procedure.
6. (a) Draw a neat diagram of portable grinder and label the main parts. 8
- OR*
- Explain the application of coolant with giving it's type.
- (b) Give the classification properties and application of steel. 8
- OR*
- Discuss on what safety precaution should be taken in the heat treatment shop.
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