4th Sem. / Mech/Prod./T&D/ CNC/F&F/AMT

Subject: Workshop Technology-II

Time: 3 Hrs. HSBTEonline.com M.M.: 100 SECTION-A

Note: Very Short Answer type questions. Attempt any 15 parts. (15x2=30)

- Q.1 a) Define cutting tool.
 - b) What are chip breakers?
 - c) Define machine time.
 - d) What is capstan lathe used for?
 - e) Define feed.
 - f) What is the use of angle plate in lathe?
 - g) What are boring bars?
 - h) Define shaping process.
 - i) What is the common broach material?
 - j) What is cutting fluid used for cutting aluminium?

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- k) Define fixture.
- I) What is spinning?
- m) What is counter sinking?
- n) What is function of cross slide?
- o) Name any two cutting materials.
- p) What is the common material used for fixtures? HSBTEonline.com
- q) What are the units of cutting speed?
- r) What is the function of flat drill?

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SECTION-B

Note: Short answer type questions. Attempt any ten parts 10x4=40

- Q.2 i) What are side rake angles and back rake angle? Show by sketch.
 - ii) Give a brief classification of lathe.
 - iii) How the motion is transmitted from lathe spindle to lead screw or vice versa? Show the gear arrangement.
 - iv) Explain parting off operation.

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- v) Give the specifications of a typical centre lathe. HSBTEonline.com
- vi) Explain the process of spot facing on drilling machine.
- vii) What are the types of planer?
- viii) Explain duplex horizontal broached machine.
- ix) Write notes on mineral oils.
- Explain the effect of various types of heats producing during cutting.
- xi) Differentiate between drilling and boring.
- xii) Show different types of shaping jobs.
- xiii) What is 3-2-1 principle of locating?
- xiv) What is gear type quick return mechanism?
- xv) How gear are cut on shaper?

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Note: Long answer type questions. Attempt any three questions. 3x10=30

- Q.3 Explain any five type of mandrels and one toll post grinder with neat sketch.
- Q.4 What are the types of cutting fluids? Give examples. HSBTEonline.com
- Q.5 Explain with neat sketches various clamping devices.
- Q.6 Explain the boring tools and boring heads.
- Q.7 Write note on:
 - a) Ceramics
 - b) Collets

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