

Q.22 A hole of 100mm dia. is bored to 110mm dia. 2 passes with a feed of 0.3mm/rev. and the drilling machine spindle revolves at 420 rpm. Find the depth of cut, feed/min. and cutting speed.

### SECTION-D

**Note:** Long answer type questions. Attempt any two questions out of three questions. (2x8=16)

Q.23 Classify milling machines. Also draw horizontal milling machine by labeling its various parts.

Q.24 Write the name of different types of tools used on milling machine. Also draw a neat sketch of universal milling machine and label its main parts.

Q.25 Sketch and describe the construction of capstan lathe. Also write the names of various attachments used on centre lathe.

No. of Printed Pages : 4  
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222017

### 1st Year / Advance Diploma in Tool & Die Making

### Subject:- Workshop Technology - I

Time : 3Hrs.

M.M. : 60

### SECTION-A

**Note:** Multiple choice questions. All questions are compulsory (6x1=6)

Q.1 The workshop should be kept \_\_\_\_\_

- a) Busy with every machine running at the same time
- b) Clean and Tidy
- c) Dirty to show that it is being used
- d) With Wide walkways for running

Q.2 Which of the following material tend to clog the cutting wheel?

- a) Aluminium                      b) Brass
- c) Plastic                              d) All of the above

Q.3 Normal value of the point angle of a drill is

- a) 70°                                      b) 98°
- c) 118°                                      d) 130°

Q.4 \_\_\_\_\_ is used for holding and guiding the tool in drilling operation.

- a) Jig                                      b) Fixture
- c) Templates                              d) Both a and b

Q.5 Lathe bed is usually made of

- a) Structural steel                      b) Stainless steel
- c) Cast iron                              d) Mild steel

Q.6 Which types of shapes is produced by shaper machine?

- a) V-block                              b) Dove tail
- c) Guide gib                              d) All of the above

### SECTION-B

**Note:** Objective/Completion type questions. All questions are compulsory. (6x1=6)

Q.7 Milling machine uses \_\_\_\_\_ point cutting tool.

Q.8 Pillar drilling machine is also known as \_\_\_\_\_.

Q.9 In lathe machine, lead screw is provided with \_\_\_\_\_ types of threads.

Q.10 The return stroke of shaper machine is called \_\_\_\_\_.

(2)

222017

Q.11 Which part of the slotter machine provides straight line motion to tool?

Q.12 A soldering iron bit is made of \_\_\_\_\_.

### SECTION-C

**Note:** Short answer type questions. Attempt any eight questions out of ten questions. (8x4=32)

Q.13 Define the following terms:

- i) Welding                              ii) Soldering

Q.14 Differentiate between jig and fixture.

Q.15 Sketch and explain any four milling cutter.

Q.16 Describe the working principle of horizontal band saw.

Q.17 Explain any four cutting operations.

Q.18 Explain the following operations performed on drilling machine:

- i) Spot facing                              ii) Counter boring

Q.19 Explain any five lathe operations.

Q.20 Explain the principle of quick return mechanism used in shaper.

Q.21 Draw the diagram of the following milling operation:

- i) Face milling                              ii) Slot milling

(3)

222017