



**BHARTIYA SKILL DEVELOPMENT UNIVERSITY**  
**SCHOOL OF MANUFACTURING SKILLS**  
**3<sup>rd</sup> SEMESTER, FIRST IN- SEM. EXAMINATION**  
**WINTER SEMESTER, B.VOC. PROGRAM**  
**SESSION 2017-2018**

**Course Code: SMS3001**

**Course Name: Advanced Conventional  
Manufacturing**

**Time (Minutes): 60**

**Maximum Marks: 20**

**Instructions:**

1. Attempt all questions.
2. Use of Calculators is prohibited.
3. Section A contains 10 Questions. Each question carries 0.5 Mark.
4. Section B contains 06 Questions. Each question carries 1 Mark.
5. Section C contains 03 Questions. Each question carries 3 Marks.

**Section- A**

Fill in the blanks

- 1) The different force direction means that the mill is pulled into the work piece during \_\_\_\_\_.
  - Up milling
  - Down milling
- 2) Shoulder mill is used for \_\_\_\_\_.
  - Finish milling
  - Rough milling
- 3) Gears are produced by \_\_\_\_\_ using either DISC CUTTER or END MILL.
  - Injection moulding
  - Form milling
- 4) \_\_\_\_\_ is harder abrasive particle than silicon carbide.
  - Aluminium oxide
  - Boron nitride
- 5) The size of an abrasive grain is identified to the number of squares per \_\_\_\_\_ of screen length.
  - Millimeter
  - Inch
- 6) Larger pore structure designation number means \_\_\_\_\_ pores.
  - Large
  - Small



- 7) For interrupted turning we take \_\_\_\_\_ angle of inclination.
  - Positive
  - Negative
- 8) For medium rake angle and lower cutting speed, \_\_\_\_\_ chips are formed.
  - Rupture chips
  - Shearing chips
- 9) Chip breakers should produce \_\_\_\_\_ chip forms.
  - Favorable
  - Unfavorable
- 10) For high cutting speed & large rake angle \_\_\_\_\_ chips are formed.
  - Continuous
  - Rupture

### Section-B

- 1) Define gear.
- 2) Define grinding.
- 3) Name four types of gear.
- 4) Differentiate between cycloidal teeth and involute teeth (two points).
- 5) Why are small corner radii primarily used during finishing
- 6) What advantage does a negative angle of inclination for the tool holder have?

### Section-C

- 1) Calculate number of teeth to be cut out if gear blank diameter is 78 mm & module of disc cutter is 1.5 mm and also calculate pitch diameter and total depth.
- 2) Select correct identifying terms for every block with the options given below:

**Grinding Wheel DIN 69120 1 A 450 x 100 x 127 A60K 8V 40**

- Type
  - Material of grinding wheel
  - Abrasive particles
  - Grain size
  - Grade
  - Form
  - Nominal dimension
- 3) Calculate the theoretical surface roughness during turning if corner radius is 0.6 mm and feed rate is 0.4 mm and also define  $R_a$  &  $R_z$ .



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**SCHOOL OF MANUFACTURING SKILLS**  
**3<sup>rd</sup> SEMESTER, 1<sup>ST</sup> IN-SEMESTER EXAMINATION**  
**WINTER SEMESTER, B.VOC. PROGRAM**  
**SESSION 2017-2018**

**Course Code: GEN 3002**

**Time (Minutes): 60**

**Course Name: Engineering Drawing**

**Maximum Marks: 20**

**Instructions:**

1. Attempt all questions.
2. Use of Calculators is Prohibited.
3. Section A contains 10 Questions. Each question carries 0.5 Marks.
4. Section B contains 06 Questions. Each question carries 1 Mark.
5. Section C contains 03 Questions. Each question carries 3 Marks.

**Section-A**

1. What is the size of A-4 paper format?
  - a) 210 X 300
  - b) 310 X 297
  - c) 210 X 297
  - d) 400 X 300
2. Which one of the following pencils can be used to draw outline for a drawing?
  - a) H
  - b) 2H
  - c) 3H
  - d) HB
3. What is the ratio of the title block with respect to drawing size?
  - a) 3:2
  - b) 4:3
  - c) 1:2
  - d) 2:1
4. Which instrument is used to measure circular parts?
  - a) Vernier caliper
  - b) Micrometer
  - c) Ruler
  - d) Divider



5. What is the minimum border size in a drawing format?
  - a) 20 mm
  - b) 10 mm
  - c) 25 mm
  - d) 5 mm
6. 2:1 is an Example of  $\phi$ 
  - a) Reducing scale
  - b) Enlarging scale
  - c) Equal scale
  - d) None of these
7. Short dashes line alternate long and short dashes in a proportion of  $\phi$ 
  - a) 1:6
  - b) 6:1
  - c) 1:1
  - d) 1:2
8. The act of obtaining the image of an object is termed as  $\phi$ 
  - a) Projection
  - b) Projectors
  - c) View
  - d) Line of sight
9. Locus lines are represented by  $\phi$ 
  - a) Short dash line
  - b) Continuous thin lines
  - c) Continuous thick lines
  - d) Continuous thin wavy
10. In \_\_\_\_\_ Projection method distance from the observer to the object is infinite 0.5 mark  $\phi$ 
  - a) Perspective
  - b) Parallel
  - c) Orthographic
  - d) First angle

### Section- B

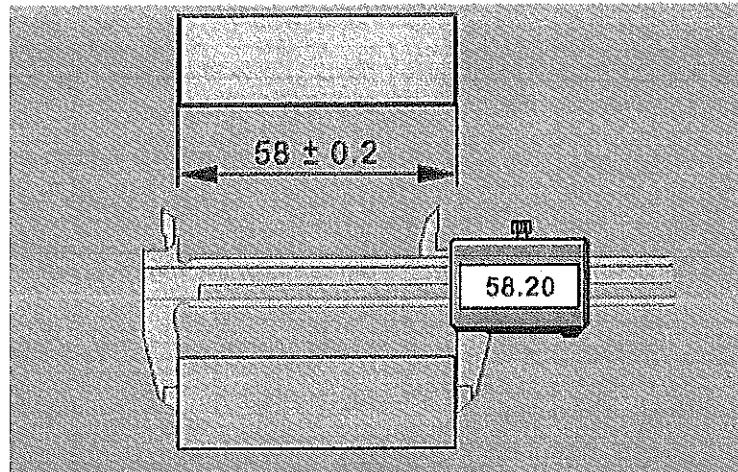
11. What is the use of reference grid in the drawing sheet?
12. Draw the symbol for the first angle of projection?
13. What is interference fit?
14. What is French Curve?
15. Give two uses of continuous thick lines?
16. What is Nominal size?

**Section- C**

17. Write down the differences between first and third angle of projection?

18. Calculate

- a) Upper deviation
- b) Minimum size
- c) Nominal size
- d) Actual size
- e) Upper limit
- f) Lower deviation



19. Draw the layout for engineering drawing format and indicate its main components?

