

BISHNUPUR PUBLIC PRIVATE ITI

Question Branch

Subject: TRADE THEORY. TOPIC: Grinding

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PART -1

1) The material which holds the fine grains of abrasive material in grinding wheel is called as

- a. compound
- b. bond**
- c. hold
- d. none of the above

2) The grinding process results in good surface finishing because

- a. the chip removed during the process is small
- b. the process is carried out at high cutting speed
- c. both a. and b.**
- d. none of the above

3) Rough grinding process is commonly used for

- a. removing excess material from casting**
- b. cutting materials that are too hard to be machined by other conventional tools
- c. producing surfaces on parts to higher dimensional accuracy
- d. obtaining finer finish

4) Which process is used for grinding splined shafts?

- a. External cylindrical grinding
- b. Internal cylindrical grinding
- c. Surface grinding
- d. Form grinding**

5) Which of the following statements are true for centreless grinding?

- 1. Less metal needs to be removed in centreless grinding operation
- 2. The setup time for centreless grinding operation is small
- 3. The requirement of wheel adjustment in centreless grinding operation is minimum
- 4. The centreless grinding operation can be applied equally to both internal and external grinding

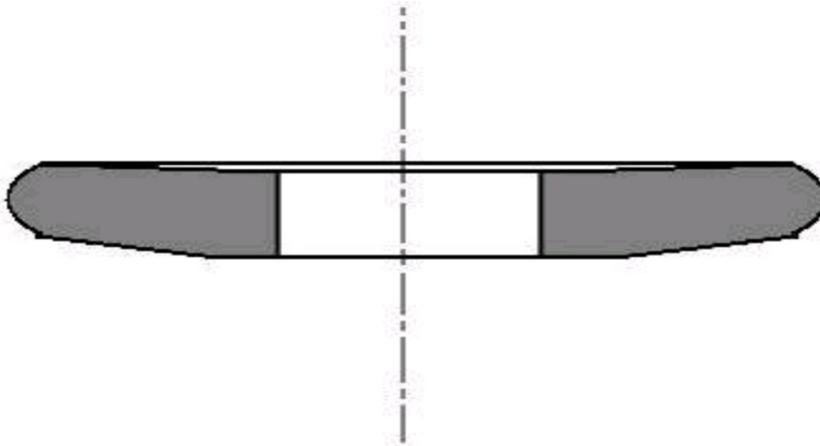
- a. (1), (2) and (3)
- b. (2), (3) and (4)
- c. (1), (3) and (4)**
- d. (1), (2) and (4)

6) The performance of grinding wheel is evaluated in terms of grinding ratio (G) which is given by the ratio of

a. the volume of material required to the volume of wheel wear

b. the volume of wheel wear to the volume of material required

7) Which type of grinding wheel is shown in below diagram?



a. Dish wheel

b. Cup wheel

c. Saucer wheel

d. Cylinder wheel

8) Which of the following is/are example/s of honing operation?

a. Roller bearing races

b. Diesel engine cylinder bore

c. Hub holes in gears of gear boxes

d. All of the above

9) The productivity of honing operation is

a. less than the productivity of lapping operation

b. more than the productivity of lapping operation

c. equal to the productivity of lapping operation for the same workpiece.

d. Unpredictable

10) When the the finishing is more important than the dimension then

a. honing operation is carried out for finishing

b. lapping operation is carried out for finishing

c. grinding operation is carried out for finishing

d. all of the above,

PART -2

1. In case of cylindrical grinder , the depth of cut for roughing cut is normally (**0.05mm** / 0.01mm / 0.005mm / 0.001mm).
2. In case of cylindrical grinder , the depth of cut for finishing cut is normally (0.05mm / 0.01mm / **0.005mm** / 0.001mm).
3. The process of removing surface roughness , tools marks, surface cracks from grinding , slight distortion and other minor defect from previous operation is known as (honing / **Lapping** / brazing / milling).
4. When grinding with silicon carbide wheel , the coolant should be (Water / Paraffin / Paraffin in equal quantity / **Soluble oil**).
5. The process of changing the shape of the grinding wheel as it becomes wrong out is (Honing / **Truing** / Lapping/ Dressing).
6. Which of the following statement is correct (in wet condition hard wheel / in wet condition soft wheel / in dry condition soft wheel / **in wet condition hard wheel & dry condition soft wheel**) is required.
7. The grinder used for grinding irregular , curved, tapered, concave & convex surfaces should be (internal / **surface** / cylindrical / all of the above) grinder .
8. The wheel will appear _____ if the depth of cut is decreased. (**Harder** / Softer).
9. Surface grinding machine are employed to finish (**plane or flat surface** / cylindrical & tapered surface / cylinder , cam & crank shaft / none of the above).
10. Truing is the process of (surface finishing / **changing the shape of grinding wheel** / metallic coating / none of above).

PART -3

1) The cause for glazing of a grinding wheel is

- A. Grain size is too fine
- B. Wheel is hard
- C. Wheel speed is too fast
- D. **A and B both**

2) Which one of the following bonds is most commonly used on grinding wheels ?

- A. **Vitrified**

- B. Rubber
- C. Shellac
- D. Silicate

3) A grinding wheel marked with 'C' is made with the abrasive

Aluminium oxide

Silicon carbide

Diamond

Corundum

4) As per Indian Standards the grain size '46' comes under the group

Coarse

Medium

Fine

Very Fine

5) As per Indian Standards the 'M' grade of grinding wheel comes under the group

Soft

Medium

Hard

Very Hard