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Common to Mechanical, Mechanical and Automation Engineering

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unit 1

1. Sand casting is a casting process that uses:
   A) Metal moulds
   B) Ceramic moulds
   C) Sand moulds
   D) Investment moulds

Ans:C

2. Sand moulds are typically made by:
   A) Pouring molten metal into the mould cavity
   B) Pressing the sand around a pattern
   C) Heating the sand to form a solid mould
   D) Cooling the sand to form a rigid mould

Ans:B

3. The purpose of a pattern in sand casting is to:
   A) Shape the mould cavity
   B) Provide structural support to the mould
   C) Control the cooling rate of the metal
   D) Aid in the removal of the casting from the mould

Ans:A

4. Pattern materials commonly used in sand casting include:
   A) Wood and metal
   B) Plaster and ceramic
   C) Wax and plastic
   D) Sand and clay

Ans:A

5. Pattern allowances in sand casting are used to compensate for:
   A) Shrinkage of the metal during cooling
   B) Expansion of the sand during pouring
   C) Distortion of the pattern during moulding

D) Compression of the sand during solidification
Ans:A

6. Which type of sand is commonly used for moulding in sand casting?
A) Green sand
B) Resin sand
C) Petrobond sand
D) Chromite sand
Ans:A

7. The properties of molding sand include:
A) Cohesiveness and permeability
B) Hardness and brittleness
C) Ductility and conductivity
D) Elasticity and transparency
Ans:A

8. Core making in sand casting is the process of:
A) Making a hollow cavity in the casting
B) Reinforcing the mould with additional sand
C) Removing excess sand from the mold
D) Applying a coating to the mold surface
Ans:A

9. Sand testing in sand casting is performed to assess the:
A) Strength and permeability of the sand
B) Temperature and viscosity of the metal
C) Density and porosity of the casting
D) Hardness and brittleness of the pattern
Ans:A

10. CO_2 process in sand casting involves the use of:
A) Carbon dioxide gas for mould hardening
B) Sand mixed with a resin binder
C) Cold water for rapid cooling
D) High-pressure steam for mould compaction
Ans:B
11. Molding machines used in sand casting include:
A) Injection moulding machines
B) Blow moulding machines
C) Extrusion moulding machines

D) Jolt-squeeze molding machines

Ans:D

12. Melting furnaces in sand casting are used to:

A) Heat the sand to a molten state

B) Solidify the metal into a casting

C) Pour the molten metal into the mould

D) Remove impurities from the metal

Ans:C

13. Shell casting is a special casting process that uses:

A) Sand moulds with a thin shell

B) Ceramic moulds with a hollow core

C) Investment moulds made of wax or plastic

D) Permanent moulds made of metal

Ans:A

14. Investment casting, also known as lost wax casting, involves:

A) Creating a ceramic shell around a wax pattern

B) Pouring molten metal into a sand mould

C) Pressing metal powder into a mould cavity

D) Melting metal in a vacuum chamber

Ans:A

15. Ceramic moulds in sand casting are typically made of:

A)Silica sand

B) Alumina

C) Zirconium oxide

D) Tungsten carbide

Ans:C

16. Cupola furnace used for melting

A) Ferrous materials

B) Plaster of Paris

C) Silica

D) Zirconium

Ans:A

17. Ceramic mould casting is known for its:

A) High dimensional accuracy

B) Low cost

C) Fast production speed

D Ability to cast complex shapes

Ans:A

18. Pressure die casting is a casting process that uses:
A) Sand moulds
B) Ceramic moulds
C) Metal moulds
D) Investment moulds
Ans:C
19. The principle behind pressure die casting is:
A) Applying pressure to force molten metal into a mould cavity
B) Pouring molten metal into a sand mould
C) Rotating the mold to distribute the molten metal
D) Melting metal in a vacuum chamber
Ans:A
20. Centrifugal casting is a casting process that utilizes:
A) Centrifugal force to distribute molten metal in a mould
B) Centrifugal pumps to generate pressure for casting
C) Centrifugal separators to remove impurities from the metal
D) Centrifugal motion to solidify the metal in a mold
Ans:A

21. Sand casting defects can occur due to:
A) Insufficient mould compaction
B) Inadequate pouring temperature
C) Improper gating system design
D) All of the above
Ans:D

22. Which casting defect is characterized by a cavity or void in the casting surface?
A) Porosity
B) Shrinkage
C) Blowhole
D) Inclusion
Ans:C
23. A casting defect caused by the improper filling of the mold cavity is called:
A) Cold shut
B) Misrun
C) Hot tear
D) Sand burn
Ans:B
24. Which casting defect is characterized by a rough, uneven surface on the casting?
A) Cold shut
B) Hot tear
C) Sand burn

D) Scab
Ans:D

25. Sand burn is a casting defect that occurs due to:
A) Inadequate pouring temperature
B) Excessive mold compaction
C) Inadequate cooling of the mould
D) Improper gating system design
Ans:C

26. In pressure die casting, the molten metal is injected into the mold cavity under:
A) High pressure
B) Low pressure
C) Vacuum pressure
D) Centrifugal force
Ans:A

27. Centrifugal casting is commonly used to produce:
A) Pipes and cylinders
B) Complex-shaped components
C) Small and delicate parts
D) Ceramic moulds
Ans:A
28. Which casting defect is characterized by the presence of cracks in the casting?
A) Porosity
B) Shrinkage
C) Hot tear
D) Inclusion
Ans:C
29. The main advantage of ceramic moulds in casting is their:
A) High dimensional accuracy
B) Low cost
C) Ability to withstand high temperatures
D) Ability to cast complex shapes
Ans:C

30. Which casting defect is characterized by the presence of foreign materials in the casting?
A) Porosity
B) Shrinkage
C) Inclusion
D) Scab

Ans:C

Unit 2.

1.Gas welding is a process that uses:
  a) Oxygen and acetylene gases
  b) Argon and helium gases
  c) Propane and butane gases
  d) Nitrogen and carbon dioxide gases
Ans:A

2. Which type of gas welding is commonly used for general-purpose applications?
  a) Oxy-acetylene welding
  b) MIG welding
  c) TIG welding
  d) Plasma arc welding
Ans:A

3. The equipment used in gas welding typically consists of:
  a) Welding torch, gas cylinders, and regulators
  b) Welding machine and electrodes
  c) Power supply and shielding gas
  d) Filler rods and fluxes
Ans:A

4. Gas welding electrodes are typically made of:
  a) Copper-coated steel
  b) Tungsten
  c) Aluminum
  d) Ceramic
Ans:A

5. Coating on gas welding electrodes serves the purpose of:
  a) Protecting the electrode from oxidation
  b) Providing better arc stability
  c) Improving weld penetration
  d) All of the above
Ans:A

6. Which specification is commonly used to identify gas welding electrodes?
  a) American Welding Society (AWS) classification
  b) International Organization for Standardization (ISO) classification
  c) European Welding Federation (EWF) classification
  d) American National Standards Institute (ANSI) classification
Ans:A

7. Gas welding is primarily used for:
   a) Thin sheet metal welding
   b) Pipe welding
   c) Structural steel welding
   d) High-precision welding applications
Ans:A
8. Gas welding can be performed on which of the following metals?
   a) Steel
   b) Aluminum
   c) Copper
   d) All of the above
Ans:D
9. The flame characteristics in gas welding depend on:
   a) Gas mixture ratio
   b) Gas pressure
   c) Distance from the workpiece
   d) All of the above
Ans:D
10. Gas welding is known for its:
   a) High heat input
   b) Deep penetration capability
   c) Low heat distortion
   d) Fast welding speed
Ans:C
11. Gas welding is commonly used in which industry?
   a) Automotive
   b) Construction
   c) Aerospace
   d) Electronics
Ans:B
12. Gas welding can be performed in which welding positions?
   a) Flat and horizontal
   b) Vertical and overhead
   c) All positions
   d) Only in the flat position
Ans:C
13. Which gas welding type uses a consumable electrode wire?
   a) MIG welding
   b) TIG welding
   c) Oxy-acetylene welding
   d) Plasma arc welding
Ans:A

14. Gas welding electrodes are available in various diameters to accommodate:
a) Different material thicknesses
b) Different welding positions
c) Different gas pressures
d) Different shielding gases
Ans:A
15. Gas welding can produce welds with:
a) Excellent fusion
b) Low distortion
c) High strength
d) All of the above
Ans:D

16. Plasma arc welding is a process that utilizes:
a) Ionized gas
b) Solid-state reactions
c) High-energy electrons
d) Focused laser beams
Ans:A

17. Thermit welding is a type of welding that involves:
a) Fusion of metals using a chemical reaction
b) Heating the workpieces using an open flame
c) Application of pressure to join the metals
d) Generating a plasma arc for fusion
Ans:A

18. Electron beam welding is a process that utilizes:
a) High-velocity electrons
b) Molten metal pool
c) Shielding gas
d) Ultraviolet light
Ans:A
19. Laser beam welding is a process that uses:
a) Highly focused laser beams
b) Electric current passing through a workpiece
c) High-frequency electromagnetic waves
d) Chemical reactions between metals
Ans:A

20. Plasma arc welding is commonly used for welding:
  a) Thin sheets and foils
  b) Thick plates and structural components
  c) Pipe joints and fittings
  d) Complex and intricate shapes
Ans:B
21. Thermit welding is often used for joining:
  a) Railroad tracks and pipelines
  b) Aluminum and copper alloys
  c) Stainless steel and titanium
  d) Electronic components and circuit boards
Ans:A
22. Electron beam welding is known for its:
  a) Deep penetration capabilities
  b) High welding speed
  c) Precise control over heat input
  d) All of the above
Ans:D
23. Laser beam welding offers advantages such as:
  a) Minimal heat distortion
  b) Narrow and precise weld bead
  c) Non-contact welding process
  d) All of the above
Ans:D
24. Plasma arc welding requires:
  a) High-frequency AC power
  b) Direct current (DC) power supply
  c) Pulsed power supply
  d) Alternating current (AC) power supply
Ans:A
25. Thermit welding relies on a reaction between:
  a) Aluminum powder and iron oxide
  b) Oxygen and acetylene gases
  c) Tungsten electrode and shielding gas
  d) High-energy electrons and workpiece material
Ans:A

26. Electron beam welding is commonly used in which industry?
  a) Aerospace
  b) Automotive
  c) Electronics
  d) Construction

Ans:A

27. Laser beam welding is suitable for joining:
a) Dissimilar materials
b) Ferrous metals only
c) Non-ferrous metals only
d) Plastics and polymers
Ans:A

28. Plasma arc welding uses a shielding gas to:
a) Protect the weld zone from atmospheric contamination
b) Generate the plasma arc
c) Control the heat input
d) Preheat the workpieces
Ans:A

29. The primary advantage of thermit welding is its:
a) Ability to join large sections of metal
b) High welding speed
c) Low heat distortion
d) Capability to weld in all positions
Ans:A

30. Laser beam welding is characterized by:
a) High precision and accuracy
b) Low energy consumption
c) Limited weld depth
d) Rapid cooling rates
Ans:A

Unit 3

1. Material removal processes involve:
a) Shaping the workpiece through cutting
b) Adding material to the workpiece
c) Applying heat to the workpiece
d) None of the above
Ans:A

2. Which of the following is a type of material removal process?
a) Machining
b) Casting
c) Welding
d) Forging
Ans:A

3. Machine tools are devices used for:
   a) Cutting, shaping, and forming the workpiece
   b) Holding the workpiece in place
   c) Measuring the dimensions of the workpiece
   d) All of the above
Ans:D

4. Lathe is a machine tool used for:
   a) Turning operations
   b) Milling operations
   c) Drilling operations
   d) Grinding operations
Ans:A

5. Milling machine is primarily used for:
   a) Cutting flat surfaces
   b) Boring cylindrical holes
   c) Shaping irregular profiles
   d) Threading operations
Ans:A

6. Mechanics of metal cutting studies:
   a) Forces and stresses during cutting
   b) Heat generation and distribution
   c) Chip formation and flow
   d) All of the above
Ans:D

7. In orthogonal cutting, the cutting edge is perpendicular to the:
   a) Workpiece surface
   b) Cutting direction
   c) Tool feed direction
   d) None of the above
Ans:A

8. Chip formation in metal cutting is influenced by:
   a) Cutting speed
   b) Feed rate
   c) Cutting tool geometry
   d) All of the above
Ans:D

9. The primary purpose of the cutting fluid in metal cutting is to:
   a) Reduce friction and heat
   b) Provide lubrication
   c) Remove chips and debris
   d) All of the above
Ans:D

10. Which of the following cutting parameters determines the depth of cut in metal cutting?
   a) Feed rate
   b) Cutting speed
   c) Chip thickness
   d) Cutting force
Ans:A

11. In metal cutting, the shear angle is the angle between:
   a) The cutting tool and workpiece surface
   b) The chip and workpiece surface
   c) The cutting edge and chip flow direction
   d) The tool feed direction and cutting direction
Ans:C

12. Which of the following is a non-traditional machining process?
   a) Turning
   b) Milling
   c) Electro-discharge machining (EDM)
   d) Grinding
Ans:C

13. The concept of the Merchant's Circle is related to:
   a) Cutting forces in metal cutting
   b) Heat generation in metal cutting
   c) Chip flow in metal cutting
   d) Tool wear in metal cutting
Ans:A

14. Which machine tool is commonly used for drilling operations?
   a) Drill press
   b) Lathe
   c) Milling machine
   d) Bandsaw
Ans:A

15. The surface finish of a machined part is influenced by:
   a) Cutting tool material
   b) Cutting speed
   c) Feed rate
   d) All of the above

Ans:D

16. The process of removing material from the surface of a workpiece using a rotating abrasive wheel is called:
   a) Grinding
   b) Milling
   c) Turning
   d) Boring
Ans:A

17. Which of the following is a cutting parameter in metal cutting?
   a) Tool life
   b) Surface roughness
   c) Feed rate
   d) Cutting fluid viscosity
Ans:C

18. Which machine tool is used to produce cylindrical parts with high precision and accuracy?
   a) Lathe
   b) Milling machine
   c) Grinding machine
   d) Bandsaw
Ans:C

19. In metal cutting, the chip thickness ratio is defined as:
   a) The ratio of chip thickness to feed rate
   b) The ratio of chip thickness to cutting speed
   c) The ratio of chip thickness to depth of cut
   d) The ratio of chip thickness to tool rake angle
Ans:C

20. Which material removal process involves the use of an electrically conductive tool and a workpiece submerged in a dielectric fluid?
   a) Electro-discharge machining (EDM)
   b) Laser cutting
   c) Waterjet cutting

d) Abrasive machining
Ans:A

21. The primary cutting force in orthogonal cutting is:
a) Shear force
b) Compression force
c) Tensile force
d) Bending force
Ans:A

22. The process of removing material from the workpiece using a rotating cutting tool with multiple teeth is called:
a) Milling
b) Turning
c) Drilling
d) Boring
Ans:A

23. Which of the following machine tools is used for shaping irregular profiles and contours?
a) Shaper
b) Planer
c) Slotter
d) Bandsaw
Ans:A

24. Which of the following is a chip formation mechanism in metal cutting?
a) Shear deformation
b) Plastic deformation
c) Elastic deformation
d) All of the above
Ans:D

25. The tool life in metal cutting is influenced by:
a) Cutting speed
b) Feed rate
c) Tool material
d) All of the above
Ans:D

26. The rake angle of a cutting tool affects:
a) Chip thickness and direction
b) Cutting force and power consumption
c) Surface finish
d) All of the above

Ans:D

27. Which of the following is a non-traditional machining process that uses a focused beam of electrons?
a) Electron beam machining
b) Laser cutting
c) Waterjet cutting
d) Plasma cutting
Ans:A

28. Which of the following machine tools is commonly used for precision grinding operations?
a) Surface grinder
b) Cylindrical grinder
c) Tool and cutter grinder
d) All of the above
Ans:D

29. In metal cutting, the material removal rate is defined as:
a) The volume of material removed per unit time
b) The weight of material removed per unit time
c) The area of material removed per unit time
d) The thickness of material removed per unit time
Ans:A

30. The cutting tool geometry includes parameters such as:
a) Rake angle and clearance angle
b) Cutting edge radius
c) Tool nose radius
d) All of the above
Ans:D

Unit 4

1. Gear generating process involves:
a) Shaping gears using a cutter
b) Generating gears using a rack-shaped tool
c) Forming gears using a rolling process
d) None of the above
Ans:C

2. Gear shaping is a machining process that:
a) Cuts teeth into the gear blank using a rotating cutter
b) Forms gear teeth by pressing the gear blank against a shaped tool
c) Generates gear teeth by rolling the gear blank between two meshing gears

d) None of the above
Ans:B

3. Gear hobbing is a process that:
a) Uses a rotating gear-shaped cutter to cut teeth into the gear blank
b) Presses the gear blank against a shaped tool to form gear teeth
c) Rolls the gear blank between two meshing gears to generate gear teeth
d) None of the above
Ans:A

4. Cylindrical grinding is a type of abrasive process that is used for:
a) Grinding the outer surface of cylindrical workpieces
b) Grinding the inner surface of cylindrical workpieces
c) Grinding flat surfaces of workpieces
d) None of the above
Ans:A

5. Surface grinding is a type of abrasive process that is used for:
a) Grinding the outer surface of cylindrical workpieces
b) Grinding the inner surface of cylindrical workpieces
c) Grinding flat surfaces of workpieces
d) None of the above
Ans:C

6. Centerless grinding is a type of abrasive process that is used for:
a) Grinding the outer surface of cylindrical workpieces
b) Grinding the inner surface of cylindrical workpieces
c) Grinding flat surfaces of workpieces
d) None of the above
Ans:A

7. In abrasive grinding processes, the grinding wheel is made of:
a) Aluminum oxide
b) Silicon carbide
c) Diamond
d) All of the above
Ans:D

8. The hardness of the grinding wheel is determined by its:
a) Abrasive grain size
b) Bonding material
c) Structure

d) All of the above
Ans:D

9. The grain size of an abrasive wheel determines:
a) The surface roughness of the workpiece after grinding
b) The material removal rate during grinding
c) The cutting ability of the wheel
d) All of the above
Ans:D

10. In cylindrical grinding, the workpiece is held in place between:
a) Centers
b) Chucks
c) V-blocks
d) None of the above
Ans:A

11. The grinding wheel speed is measured in:
a) RPM (Revolutions per minute)
b) SFPM (Surface feet per minute)
c) IPM (Inches per minute)
d) None of the above
Ans:B
12. The process of removing material from the workpiece using a rotating abrasive wheel is called:
a) Grinding
b) Milling
c) Turning
d) Boring
Ans:A

13. The type of grinding process that uses a grinding wheel with a horizontal spindle and a reciprocating worktable is called:
a) Surface grinding
b) Cylindrical grinding
c) Centerless grinding
d) None of the above

Ans:A

14. The type of grinding process that uses a grinding wheel with a vertical spindle and a rotating workpiece is called:
a) Surface grinding
b) Cylindrical grinding
c) Centerless grinding

d) None of the above

Ans:B

15. The type of grinding process that does not require a center for workpiece support is called:
    a) Surface grinding
    b) Cylindrical grinding
    c) Centerless grinding
    d) None of the above

Ans:A

16. The grinding wheel specification includes parameters such as:
    a) Abrasive type
    b) Grain size
    c) Hardness
    d) All of the above

Ans:D

17. The grinding wheel speed should be selected based on:
    a) Workpiece material
    b) Wheel diameter
    c) Grinding operation
    d) All of the above

Ans:D

18. In gear generating process, the cutter is usually shaped like a:
    a) Rack
    b) Worm
    c) Helical gear
    d) Bevel gear

Ans:C

19. Gear shaping is commonly used for producing:
    a) External gears
    b) Internal gears
    c) Spur gears
    d) All of the above

Ans:D

20. Gear hobbing is a process that is primarily used for producing:
    a) External gears
    b) Internal gears
    c) Helical gears
    d) All of the above

Ans:A

21. In cylindrical grinding, the workpiece is rotated while the grinding wheel:
   a) Moves horizontally along the workpiece
   b) Moves vertically along the workpiece
   c) Remains stationary
   d) None of the above

Ans:C

22. In surface grinding, the grinding wheel is usually moved:
   a) Horizontally along the workpiece
   b) Vertically along the workpiece
   c) In a circular motion
   d) None of the above

Ans:A

23. The primary purpose of surface finishing in gear manufacturing is to:
   a) Improve the gear's appearance
   b) Enhance the gear's durability
   c) Reduce friction and wear
   d) All of the above

Ans:D

24. Honing is a surface finishing process that is commonly used for:
   a) Smoothing the internal surface of cylindrical holes
   b) Smoothing the external surface of cylindrical workpieces
   c) Smoothing flat surfaces
   d) None of the above

Ans:A

25. Lapping is a surface finishing process that involves:
   a) Using a slurry of abrasive particles between two surfaces
   b) Using a rotating grinding wheel to remove material
   c) Using high-pressure jets of abrasive particles
   d) None of the above

Ans:A

26. Super finishing is a surface finishing process that is performed to achieve:
   a) Very low surface roughness
   b) High material removal rate
   c) Improved dimensional accuracy
   d) None of the above

Ans:A

27. Polishing and buffing are surface finishing processes that involve:
   a) Smoothing the surface using progressively finer abrasive particles
   b) Applying a chemical solution to the surface to remove imperfections
   c) Heating the surface to a high temperature to induce plastic deformation

d) None of the above

Ans:A

28. Tumbling is a surface finishing process that is used for:
   a) Removing burrs and sharp edges from small parts
   b) Achieving a mirror-like finish on large workpieces
   c) Creating decorative patterns on the surface of the workpiece
   d) None of the above

Ans:A

29. Metal spraying, also known as metallization, is a surface finishing process that involves:
   a) Depositing a layer of molten metal onto the workpiece surface
   b) Removing a layer of metal from the workpiece surface using a chemical solution
   c) Etching the workpiece surface to create a desired texture
   d) None of the above

Ans:A

30. The specification of a grinding wheel includes the:
   a) Wheel diameter and width
   b) Abrasive grain size and type
   c) Hardness and structure of the wheel
   d) All of the above

Ans:D

Unit 5

1. The reciprocating machine tool that is primarily used for machining flat surfaces is called a:
   a) Shaper
   b) Planer
   c) Slotter
   d) Lathe

Ans:A

2. In a shaper, the cutting tool moves:
   a) Horizontally
   b) Vertically
   c) Rotates
   d) None of the above

Ans:B

3. The reciprocating machine tool that is used for machining large workpieces with long strokes is called
   a) Shaper
   b) Planer
   c) Slotter
   d) Milling machine

Ans:B

4. The cutting tool in a planer moves:
   a) Horizontally
   b) Vertically
   c) Rotates

d) None of the above
Ans:A

5. The reciprocating machine tool that is primarily used for machining internal slots or grooves is called a:
a) Shaper
b) Planer
c) Slotter
d) Lathe
Ans:C
6. In a slotter, the cutting tool moves:
a) Horizontally
b) Vertically
c) Rotates
d) None of the above
Ans:B
7. The reciprocating machine tool that uses a reciprocating motion of the workpiece and a stationary cutting tool is:
a) Shaper
b) Planer
c) Slotter
d) Milling machine
Ans:B
8. The cutting tool in a shaper is held in a:
a) Tool post
b) Tool holder
c) T-slot
d) Collet
Ans:C
9. In a planer, the workpiece is clamped on a:
a) Table
b) Chuck
c) Vise
d) Collet
Ans:A
10. The reciprocating machine tool that is known for its slow cutting speed and heavy-duty operations is:
a) Shaper
b) Planer
c) Slotter
d) Lathe
Ans:B
11. The cutting speed in a shaper is determined by the:
a) Feed rate
b) Stroke length
c) RPM of the cutting tool

d) None of the above
Ans:C

12. The reciprocating machine tool that is used for producing flat surfaces with a high degree of accuracy is:
a) Shaper
b) Planer
c) Slotter
d) Milling machine
Ans:B

13. The reciprocating machine tool that is capable of machining both external and internal surfaces is:
a) Shaper
b) Planer
c) Slotter
d) Lathe
Ans:D

14. The cutting tool in a slotter is held in a:
a) Tool post
b) Tool holder
c) T-slot
d) Collet
Ans:C

15. The reciprocating machine tool that is commonly used for producing keyways and splines is:
a) Shaper
b) Planer
c) Slotter
d) Milling machine
Ans:C

16. Which of the following work holding devices is commonly used for holding cylindrical workpieces in a lathe?
a) Chuck
b) Vise
c) Collet
d) T-slot
Ans:A

17. The operation of rotating a workpiece about its axis in a lathe is called:
a) Turning
b) Milling
c) Drilling

d) Boring
Ans:A

18. Which of the following hole making processes is typically used for enlarging an existing hole to a precise diameter?
a) Drilling
b) Reaming
c) Boring
d) Tapping
Ans:B

19. The process of removing material from the inside of a hole to achieve a desired diameter and surface finish is called:
a) Drilling
b) Reaming
c) Boring
d) Tapping
Ans:C

20. Which of the following hole making processes is commonly used for creating internal threads in a hole?
a) Drilling
b) Reaming
c) Boring
d) Tapping
Ans:D

21. The process of cutting internal threads using a tap is known as:
a) Drilling
b) Reaming
c) Boring
d) Tapping
Ans:D

22. Which of the following work holding devices is commonly used for holding flat workpieces in a milling machine?
a) Chuck
b) Vise
c) Collet
d) T-slot
Ans:B

23. The operation of removing material from the surface of a workpiece using a rotating milling cutter is called:
a) Turning
b) Milling
c) Drilling

d) Boring
Ans:B
24. Which of the following hole making processes is commonly used for creating holes with a circular saw blade?
a) Drilling
b) Reaming
c) Boring
d) Sawing
Ans:D

25. The process of cutting a workpiece into two or more pieces using a saw is called:
a) Drilling
b) Reaming
c) Boring
d) Sawing
Ans:D

26. Which of the following hole making processes is commonly used for creating holes with a flat-bottomed cavity?
a) Drilling
b) Reaming
c) Boring
d) Tapping
Ans:C

27. The process of cutting a hole or cavity using a rotating tool with multiple cutting edges is known as:
a) Drilling
b) Reaming
c) Boring
d) Tapping
Ans:C

28. Which of the following work holding devices is commonly used for holding irregularly shaped workpieces in a machining operation?
a) Chuck
b) Vise
c) Collet
d) Fixture
Ans:D

29. The operation of enlarging an existing hole to a precise diameter using a reamer is known as:
a) Drilling
b) Reaming
c) Boring

d) Tapping

Ans:B

30. Which of the following hole making processes is commonly used for creating holes with a larger diameter than the existing hole?

a) Drilling

b) Reaming

c) Boring

d) Tapping

Ans:C