

Multiple Choice Questions

1. The metal is subjected to mechanical working for
 - a. Refining grain size
 - b. Reducing original block into desired shape
 - c. Controlling the direction of flow lines
 - d. All of these
2. The temperature at which the new grains are formed in the metal is called
 - a. Lower critical temperature
 - b. Upper critical temperature
 - c. Eutectic temperature
 - d. Recrystallisation temperature
3. The dowels are
 - a. Wooden nails
 - b. Box nails
 - c. Wire nails
 - d. None of these
4. Which of the following material can be used for making patterns?
 - a. Aluminum
 - b. Wax
 - c. Lead
 - d. All of these
5. Aluminum is the best material for making patterns because it is
 - a. A light in weight
 - b. Easy to work
 - c. Corrosion resistant
 - d. All of these
6. When a pattern is made in three parts, the bottom part is known as a cope.
 - a. True
 - b. False
7. A taper provided on the pattern for its easy and clean withdrawl from the mould is known as
 - a. Machining allowance
 - b. Draft allowance

- c. Shrinkage allowance
 - d. Distortion allowance
8. If an aluminum pattern made from a wooden master pattern is to be used for grey iron casting, then the shrinkage allowance allowed on the wooden pattern should be
- a. 10 mm/m
 - b. 16 mm/m
 - c. 20 mm/m
 - d. 26 mm/m
9. The shrinkage allowance for cast iron pattern is
- a. 10 mm/m
 - b. 16 mm/m
 - c. 20 mm/m
 - d. 26 mm/m
10. The draft or taper allowance on casting is generally
- a. 1 to 2 mm/m
 - b. 2 to 5 mm/m
 - c. 5 to 10 mm/m
 - d. 10 to 15 mm/m
11. The metal patterns as compared to wooden patterns require less
- a. Shrinkage allowance
 - b. Machining allowance
 - c. Draft allowance
 - d. Distortion allowance
12. The machining allowance provided on patterns depends upon
- a. Type of casting metal
 - b. Size and shape of casting
 - c. Method of casting used
 - d. All of these
13. The surface to be machined is marked on the pattern by
- a. Red colour
 - b. Yellow colour
 - c. Black colour
 - d. Blue colour
14. Riddle is used for

- a. Smoothing and cleaning out depressions in the mould
 - b. Cleaning the moulding sand
 - c. Moistening the sand around the edge before removing pattern
 - d. Reinforcement of sand in the top part of moulding box
15. The adhesiveness is the property of a sand due to which
- a. It evolves a great amount of steam and other gases
 - b. The sand grains stick together
 - c. It cling to the sides of a moulding box
 - d. None of these
16. If the sand is too fine, its permeability will be high
- a. True
 - b. False
17. The purpose of a riser is to
- a. Deliver molten metal into the mould cavity
 - b. Act as a reservoir for the molten metal
 - c. Feed the molten metal to the casting in order to compensate for the shrinkage
 - d. Deliver the molten metal from pouring basin to gate
18. Which one of the following material will require the largest size of riser for the same size of casting?
- a. Aluminium
 - b. Cast iron
 - c. Steel
 - d. Copper
19. The directional solidification in casting can be improved by using
- a. Chills and chaplets
 - b. Chills and padding
 - c. Chaplets and padding
 - d. Chills, chaplets and padding
20. In permanent mould casting method
- a. Molten metal is poured in a metallic mould, retained in the mould long enough for the outer skin to solidify and finally mould is turned over to remove molten metal still in molten condition

- b. Molten metal is poured and allowed to solidify while the mould is revolving
 - c. Molten metal is forced into mould under high pressure
 - d. None of these
21. In a _____, the molten metal is poured and allowed to solidify while the mould is revolving.
- a. Die casting method
 - b. Slush casting method
 - c. Permanent mould casting method
 - d. Centrifugal casting method
22. In a hot chamber die casting machine
- a. Melting pot is separate from the machine
 - b. Melting pot is an integral part of the machine
 - c. Melting pot may have any location
 - d. High temperature and pressure is used
23. Cast iron and steel pipes are produced by
- a. Slush casting
 - b. Investment casting
 - c. True centrifugal casting
 - d. Die casting
24. Which of the following statement is wrong?
- a. The hot chamber die casting machine is used for casting zinc, tin, lead and other low melting alloys.
 - b. The cold chamber die casting machine is used for casting aluminium, magnesium, copper base alloys and other high melting alloys.
 - c. The castings produced by centrifugal casting method have open and coarse grained structure.
 - d. All of the above
25. In a cold chamber die casting machine, only non-ferrous alloys with _____ are casted.
- a. Low melting temperature
 - b. High melting temperature
26. The centrifugal casting method, is used for casting articles of
- a. Symmetrical shape about vertical axis

- b. Symmetrical shape about horizontal axis
- c. Irregular shape
- d. Non-ferrous metal used

27. Match the correct answer from Group B from the manufacturing process given in Group A.

<i>Group A (Manufacturing process)</i>	<i>Group B (Product)</i>
(a) Pressure die casting	(a) Automobile piston in aluminium alloy
(b) Gravity die casting	(b) Engine crankshaft in spheroidal graphite iron
(c) Sand casting	(c) Carburetor housing in aluminium alloys
(d) Shell moulding	(d) Cast titanium baldes

28. Fin s casting defect which is due to thin projections of metal not intended as a part of casting.

- a. Correct
- b. Incorrect

29. Shift is a casting defect which

- a. Results in a mismatching of the top and bottom parts of a casting
- b. Results in general enlargement of a casting
- c. Occurs near the ingates as rough lumps on the surface of a casting
- d. Occurs as sand patches on the upper surface of a casting.

30. A casting defect which occurs near the ingates as rough lumps on the surface of a casting is

- a. Shift
- b. Sand wash
- c. Shift
- d. Swell

31. A casting defect which occurs due to improper venting of sand is known as

- a. Cold shuts
- b. Blow holes
- c. Shift
- d. Swell