1. In one complete revolution of the bull gear wheel, the ram gets
   (1) one reverse stroke (2)one forward and one reverse stroke
   (3) one forward stroke (4)none of the three
   Ans: 2

2. In electro chemical machining, the removal of metal is achieved by the
   (1) rapidly occurring sparks between the work piece and the tools
   (2) dissolution of anode (work piece) in the electrolyte solution
   (3) chemical reaction between the work piece and the chemical
   (4) none of these
   Ans: 2

3. In a place where no electricity is available a rail track is to be drilled. Choose the right drilling machine.
   (1) Radial drilling machine (2) Pillar drilling machine
   (3) Ratchet drilling machine (4) Sensitive drilling machine
   Ans: 3

4. Tool will rub against the work surfaces and the cutting force increases when
   (1) clearance angle is more (2) clearance angle is low
   (3) rake angle is more (4) rake angle is less
   Ans: 2

5. Telescopic gauges are used to measure holes and slots
   (1)from 10mm to 100mm (2)from 12mm to 152mm
   (3) from 12.7mm to 152.4mm (4) none of the above
   Ans: 3

6. The process of heating and cooling for changing the structure of steel for obtaining the required properties I called
   (1) hardening (2) heat treatment
   (3) normalising (4) tempering
   Ans: 3

7. Increase of carbon content in steel results in
   (1)reduction of strength (2) increase in hardness
   (3) increase in strength (4) increase in ductility
   Ans: 3

8. During arc-welding the correct angle of the electrode with the welding line is
   (1) 90^o (2) $40 - 50^o$ (3) $70-80^o$ (4) 45^o
   Ans: 3

9. A welding transformer is used to convert the
(1) D.C main supply into an A.C welding supply
(2) A.C main supply into a D.C welding supply
(3) A.C main supply into an A.C welding supply
(4) D.C main supply into a D.C welding supply
Ans: 3

10. If the main electric supply is not available we can do arc welding with
(1) motor generator set (2) transformer set
(3) engine generator set (4) rectifier set
Ans: 3

11. For cutting solid brass, the most suitable pitch of the hacksaw blade is
(1) 1.8mm (2) 1.4mm (3) 1 mm (4) 0.8mm
Ans: 2

12. The Vice Clamps are use to
(1) protect hard jaws
(2) clamp the work pieces rigidly
(3) protect the finished surfaces
(4) prevent the movable jaw being field
Ans: 3

13. The part of the universal surface gauge which helps to draw a parallel line along a datum edge is
(1) rocker arm (2) snug
(3) fine adjustment screw (4) guide pins
Ans: 2

14. The type of jig in which base plate is not available is the
(1) plate jig (2) box jig
(3) post jig (4) none of the three
Ans: 1

14.1 The portion of the shaft carried in the bearing is referred to as

(1) cage (2) thrust (3) journal (4) race
Ans: 3

15. In a plain bush bearing, to prevent the rotation of bush in the housing , it should be fitted by means of
(1) soldering (2) key or screw (3) brazing (4) welding
Ans: 2

16. The major load applied in Rockwell hardness testing method in 'B' scale is
(1) 100kfg (2) 150 kfg (3) 300kfg (4) 120kfg
Ans: 1

17. The differences in reading between the minor and major load is taken into account in
(1) Brinnel hardness test (2) Shore method test
(3) Rockwell hardness test (4) Vickers hardness test
Ans: 3

18. The method of hardness testing carried out on big machine components which can not be carried to a testing machine is the
(1) Shore test (2) Brinnel hardness test
(3) Vickers hardness test (4) Rockwell hardness test
Ans: 1

19. The main purpose of using a lubricant in machine tools is to
(1) Minimize the friction between the mating parts
(2) Wet the mating parts fro close contact
(3) Prevent the machine tool from heating
(4) Cool down the mating parts
Ans: 1

20. In which clutch the inner piece and outer piece will rotate in opposite direction?
(1) single plate clutch (2) centrifugal clutch
(3) electro magnetic clutch (4) over riding clutch
Ans: 2

21. Solder is a special mixture of
(1) copper and lead (2) tin and lead
(3) copper and tin (4) tin and flux
Ans: 2

There are really only three main categories of solder which you can use to narrow down your search:

- Lead based solder was what kicked of the electronics revolution. The most common mixture is a 60/40 (tin/lead) blend with a melting point around 180-190°C. Known colloquially as soft solder, tin is selected for its lower melting point while lead is used to inhibit the growth of tin whiskers. The higher the tin concentration, the better the tensile and shear strengths.
- Lead free solder started taking off when the EU started restricting the inclusion of lead in consumer electronics. Lead free solders generally have a higher

melting point than conventional solder.

- Flux core solder is sold as a spool of "wire" with a reducing agent at the core. The flux is released during soldering and reduces (reverses oxidation of) metal at the point of contact to give you a cleaner electrical connection. It also improves the wetting properties of the solder. In electronics, flux is usually rosin. Acid cores are for metal mending and plumbing, and should not be used on electronics.

https://resources.pcb.cadence.com/blog/what-are-the-different-types-of-solder-2

22. The force of attraction or repulsion between charges depends on
(1) amount of charges (2) distance between the charges
(3) type of charged material (4) both (1) and (2)
Ans: 4

23. The white metal alloys used for bearings are
(1) tin base alloys (2) copper base alloys
(3) aluminium base alloys (4) ferrous base alloys
Ans: 1

24. Carburizing is the process used for
(1)hardening the outer surface (2) refining the grain size
(3) hardening the core of the steel (4) softening the metal
Ans: 1

25. One constituent of carbide tool is tungsten carbide , the other constituent is
(1) vanadium (2) aluminium oxide
(3) chroium (4) cobalt
Ans: 4

26. The included angel of a single point wedge shaped tool is known as
(1)side rake angle (2) lip angle
(3) back rake angel (4) side clearance angle
Ans: 2

27. The thickness of chip removed by a tool, with the increase of shear angle, will be
(1) more (2) same
(3) less (4) none of the three
Ans: 3

28. Eldorado is
(1) a tract of fertile land in Africa
(2) the name of a city in South America
(3) the name of a desert in China
(4) a fictitious country or city abounding in gold
Ans: 4

29. The purpose of the clearance angle is
(1) to guide the chips away
(2) to avoid over heating
(3) to prevent the tool rubbing with the work piece
(4) to break the lengthy chips
Ans: 3

30. To turn the face of an irregularly shaped work piece, mount the piece
(1) on the face plate (2) in a mandrel
(3) between centres (4) in a 3 jaw chuck
Ans: 1

31. Concentric lines are provided on the face of a four jaw chuck to
(1) adjust the jaws of the chuck quickly as per the diameter of the work to be held
(2) give guidelines to the operator
(3) give better appearance
(4) set the job
Ans: 4

32. Which among the following operations will be most suitable and will produce a larger diameter hole, concentric to a curved hold in a casting?
(1) Drilling (2) Reaming
(3) Counter boring (4) Boring
Ans: 4

33. The most common method employed for turning steep tapers is
(1) swiveling the compound slide
(2) form tool plunging
(3) offsetting the tail stock method
(4) the combination of the lathe compound slide and the cross slide
Ans: 1

34. For external taper of MT4 in mass production, the most useful method of taper turning is the

(1) offsetting the tail stock (2) taper turning attachment nut

(3) swivelling the compound slide (4) plunge cut with form tool

Ans: 2

35. The standard pipe fittings are provided with threads conforming with

(1) BA (2) BSW (3) BSP (4) Metric

Ans: 3

36. The external threads on G.I pipes are cut easily by

(1) Tap sets (2) Dies and Die stocks

(3) Centre lathes (4) Thread rollers

Ans: 2

37. In the pipe assembly, the hemp packing is used

(1) for easy engagement (2)to fill the gap between threads (3) (3)to avoid leakage (4 to get tight fitting)

Ans: 3

38. The sealing compound shall be applied on the pipe threads

(1) before hemp packing (2) after hemp packing

(3) before and after hemp packing (4) none of the three

Ans: 2

39. In globe valves the pressure is usually

(1) on the left side (2) against the stem

(3) on the right side (4) under the seat

Ans: 4

40. Rotary motion is converted into reciprocating motion by means of the

(1) rocker arm and bull gear (2) rack and pinion

(3) worm and worm gear (4) none of the three

Ans: 2

41. The size of an engineer's vice is specified according to the

(1) length of the movable jaw (2) width of the jaws

(3) height of the vice (4) maximum opening of the jaws

Ans: 2

42. The die necessary used to strip the work piece from the punch on the die on completion of the cutting operation is known as

(1) stop (2) stripper (3) pilot (4)pressure pad
Ans: 3

43. The single-point cutting tool is used in
(1) milling work (2) broaching work
(3) reaming work (4) lathe work
Ans: 4

44. Which of the following process is used for cutting and welding non-ferrous metals ?
(1) Carbon arc welding (2) Inert gas arc welding
(3) Submerged arc welding (4) Metal arc welding
Ans: 2

45. A drift is used for
(1) drawing a drill location
(2) fixing chuck on the machine spindle
(3) removing a broken drill from the work
(4) removing the drill from the machine spindle
Ans: 4

46. when the taper shank of the drill is larger than the machine spindle, the device to hold the drill is a
(1) drill sleeve (2) drill drift
(3) taper socket (4) chuck and key
Ans: 3

47. The rake angle is the angle between the
(1) working face and the bottom face of the cutting edge
(2) top face of the cutting edge and the line perpendicular to the working surface
(3) working surface and the axis of the chisel when chipping
(4) bottom face of the cutting edge and the working surface
Ans: 2

48. A special feature of the radial drilling machine is
(1) it can be used for drilling with a H.S.S. Drill
(2) table can be moved an set at any position
(3) a variety of speeds is available
(4) the spindle can be brought to any position
Ans: 4

49. The point angle for a standard drill is
(1) 135^o (2) 60^o (3) 108^o (4) 118^o
Ans: 4

50. The part of a Vernier bevel protractor which is normally used as a reference base for measuring angles is the
(1) Blade (2) Stock (3) Disc (4) Main Scale

Ans: 2