

- 02.05. Fusion welding may be
a) Autogenous b) Non-autogenous c) Both d) None
- 02.06. If welding temperature is correct it will form
a) Plane of weakness b) Equiaxed grains c) Both d) None
- 02.07. Considerable degree of grain refinement occurs due to normalizing in.....welding.
a) Single run b) Multi run c) Both d) None
- 02.08. Slag and gas inclusions may be higher in.....welding.
a) Single run b) Multi run c) Both d) None
- 02.09. Nitrogen appearing as needle on certain planes in crystals causes
a) Low impact strength b) High impact strength
c) Both d) None
- 02.10. Stresses setup in the weld by shrinkage may be relieved by annealing.
a) True b) False
- 02.11. Oxyacetylene welding is suitable for sheets and plates of thickness 2 to 50mm.
a) True b) False
- 02.12. Flux is employed during welding of mild steel.
a) True b) False
- 02.13. The temperature of oxyacetylene flame in its hottest region is about
a) 2500°C b) 1539°C c) 3200°C d) None
- 02.14. Carburizing flame has excess of
a) Acetylene b) Oxygen c) Air d) None
- 02.15. Carburizing flame is necessary for welding of brass.
a) True b) False
- 02.16. High pressure Acetylene cylinders are charged to a pressure of.....
a) $1\text{kg}/\text{cm}^2$ b) $2\text{kg}/\text{cm}^2$ c) $154\text{kg}/\text{cm}^2$ d) None
- 02.17. Oxygen cylinders are charged at a pressure of about
a) $1\text{kg}/\text{cm}^2$ b) $2\text{kg}/\text{cm}^2$ c) $154\text{kg}/\text{cm}^2$ d) None
- 02.18. Air acetylene welding process attains higher temperature than other gas processes.
a) True b) False
- 02.19. Oxy-hydrogen process was used to weld.....melting point metals.
a) Low b) High c) Both d) None

- 02.20. Anode is.....pole of DC power supply.
a) Positive b) Negative c) Neutral d) None
- 02.21. 1 KWH of electricity will create 250 calories.
a) True b) False
- 02.22. Two thirds of heat is generated near.....pole.
a) Negative b) Positive c) Neutral d) None
- 02.23. Electrode connected to positive pole will burn 50 percent faster than that is connected to negative pole.
a) True b) False
- 02.24. A.C. welding transformer steps down the usual supply voltage (200-400V) to the normal open circuit voltage of
a) 50-90V b) 150-200V c) 30-50V d) None
- 02.25. The electric energy consumption per kg of deposited metal in A.C. welding is
a) 3-4kWH b) 6-10kWH c) 4-6kWH d) None
- 02.26. The motor in a D.C. welding has a power factor of
a) 0.3 to 0.4 b) 0.6 to 0.7 c) 1 d) None
- 02.27. Open circuit (No load) voltage is higher than arc voltage.
a) True b) False
- 02.28. With D.C. current the open circuit voltage must be at least.....
a) 30 to 35 V b) 50 to 90 V c) Any d) None
- 02.29. Mean total ampere for a 4mm electrode is about.....
a) 70A b) 105A c) 140A d) None
- 02.30. Mean total ampere for a 3.25mm electrode is about.....
a) 70A b) 105A c) 140A d) None
- 02.31. Resistance welding uses pressure to complete the weld.
a) True b) False
- 02.32. For joining parts not subjected to high temperature and excessive loads..... is used.
a) Soft soldering b) Hard soldering c) Any d) None
- 02.33. Solder composed of lead and tin has a melting range of
a) 150-350⁰C b) 600-850⁰C c) Any d) None

- 02.34. Flux is used to prevent.....of the surfaces to be soldered.
a) Oxidation b) Rusting c) Melting d) None
- 02.35. Flux is used to dissolve that settle on the metal surfaces during heating process.
a) Oxides b) Rusts c) Carbides d) None
- 02.36. Lead..... percent and tin..... percent is used in soft solder.
a) 37, 63 b) 63, 37 c) 50, 50 d) 58, 42
- 02.37. Lead..... percent and tin..... percent is used in medium solder.
a) 37, 63 b) 63, 37 c) 50, 50 d) 58, 42
- 02.38. Lead.....percent and tin.....percent is used in Electrician solder.
a) 37, 63 b) 63, 37 c) 50, 50 d) 58, 42
- 02.39. Brazing gives stronger joint than soldering.
a) True b) False
- 02.40. Spelter is used in
a) Brazing b) Soldering c) Both d) None
- 02.41. Spelter fuses.....red heat, but.....the melting temperature of the parts to be joined.
a) Above, below b) Below, above c) Both d) None
- 02.42. Silver base alloys spelter has a melting range of
a) 150-350⁰C b) 600-850⁰C c) 350⁰C-600⁰C d) None
- 02.43. Maximum..... percent wear in Cross section area is allowed on tamping tool.
a) 20 b) 30 c) 50 d) None
- 02.44. facing Electrodes are used for welding of tamping tools.
a) Soft b) Hard c) Any d) None
- 02.45. Thickness of Tamping Tool at top..... mm at bottom..... mm is maintained.
a) 140, 70 b) 5, 20 c) 20, 5 d) 70, 140
- 02.46. Reconditioning of tamping tool is done by.....welding.
a) Gas b) Electric Arc c) Any d) None
- 02.47. For reconditioning of Tamping Tools,supply is given to Electrode.
a) Positive b) Negative c) Any d) None
- 02.48. One welding layer should be cooled before doing another layer.
a) True b) False

- 02.49. Improper cleaning of surface causes.....
 a) Improper penetration b) Under cutting c) Cracks d) None
- 02.50. High current and more Arc gap causes.....
 a) Lack of Fusion b) Under cutting c) Cracks d) None
- 02.51. Excess heat generation causes.....
 a) Lack of Fusion b) Under cutting c) Shape Deformation d) None
- 02.52. For welding of BCM turret gear hardness of the order of.....is maintained.
 a) 350BHN b) 100BHN c) 250BHN d) None
- 02.53. For welding of turret gear.....electrode of Larsen & Tubro is used.
 a) C-2RL b) 2B c) Both d) None
- 02.54. 12 to 14% Mn is available in main links of BCM.
 a) True b) False
- 02.55. During welding of turret gear half portion is immersed into
 a) Water b) Oil c) Acid d) None
- 02.56. Reconditioning of cutter bar is done by welding.
 a) True b) False
- 02.57. Grinding is not required for recondition of turret gear.
 a) True b) False

Chapter: Welding and Related Processes							
Question	Answer	Question	Answer	Question	Answer	Question	Answer
02.01	b	02.16	a	02.31	a	02.46	b
02.02	a	02.17	c	02.32	a	02.47	a
02.03	c	02.18	b	02.33	a	02.48	a
02.04	b	02.19	a	02.34	a	02.49	a
02.05	c	02.20	a	02.35	a	02.50	b
02.06	b	02.21	a	02.36	a	02.51	c
02.07	b	02.22	b	02.37	b	02.52	a
02.06	b	02.23	a	02.38	d	02.53	b
02.09	a	02.24	a	02.39	a	02.54	a
02.10	a	02.25	a	02.40	b	02.55	a
02.11	a	02.26	b	02.41	a	02.56	a
02.12	b	02.27	a	02.42	b	02.57	b
02.13	c	02.28	a	02.43	a		
02.14	a	02.29	c	02.44	b		
02.15	a	02.30	b	02.45	c		

- 03.16. Files are..... hence should be placed carefully.
 a) Brittle b) Tough c) Lined d) None
- 03.17. Lip angle of drill-bil for general work is
 a) 118° b) 59° c) 90° d) None
- 03.18. There aretaps in a tap-set.
 a) One b) Two c) Three d) Four
- 03.19. Tap drill size T.D.S =.....
 a) 0.61p b) 0.8xTap size c) Tap size – p d) None
- 03.20. Tap should be moved back for half round forward.
 a) Quarter round b) Half round c) Full round d) None

Chapter: Bench Work and Fitting					
Question	Answer	Question	Answer	Question	Answer
03.01	b	03.08	b	03.15	b
03.02	a	03.09	a	03.16	a
03.03	b	03.10	b	03.17	a
03.04	b	03.11	a	03.18	c
03.05	b	03.12	a	03.19	b
03.06	a	03.13	a	03.20	a
03.07	d	03.14	a		

Chapter: Measurement and Inspection

- 04.01. Go and no-go gauges reveal actual size of dimension.
 a) True b) False
- 04.02. International standard meter is equal to 1650763.73 vacuum wave length of orange radiation of Krypton-85.
 a) True b) False
- 04.03. Micrometer is astandard instrument-
 a) End b) Length c) Both d) None
- 04.04. Graduated rule or scale is aInstrument.
 a) Precision b) Non-Precision c) Both d) None
- 04.05. Vernier-Calliper is a.....Instrument.
 a) Precision b) Non-Precision c) Both d) None
- 04.06. In external micrometer, beveled edge of thimble is divided into.....equal parts.
 a) 50 b) 10 c) 100 d) None

Chapter: Workshop Machines-Lathe machine							
Question	Answer	Question	Answer	Question	Answer	Question	Answer
06.01	b	06.04	a	06.07	c	06.10	a
06.02	a	06.05	b	06.08	a	06.11	c
06.03	a	06.06	b	06.09	a		

Chapter: Workshop Machines-Drilling & Boring machine

- 07.01. Hole is generated in the process of.....
 a) Reaming b) Tapping c) Drilling d) None
- 07.02. In drill machine driving mechanisms are contained in.....
 a) Head b) Table c) Column d) None
- 07.03. The expression for Dia of Hole D, in terms of T (Dia of Tap) and d (depth of thread) is.....
 a) T-d b) T+2d c) T-2d d) T/2d
- 07.04. is a process used for enlarging /finishing the hole previously drilled to give accuracy to dimension.
 a) Reaming b) Tapping c) Milling d) None
- 07.05. The material used for making drill-bit is.....
 a) HSS b) MS c) Cast Iron d) None
- 07.06.machine is used to bore holes in large and heavy parts.
 a) Drilling b) Lathe c) Boring d) None
- 07.07. Vertical turret lathe is a type of vertical.....machine.
 a) Lathe b) Drilling c) Boring d) None
- 07.08. In a horizontal boring machine, the.....permits the work to be moved longitudinally on the bed.
 a) Head Stock b) Saddle c) Boring bar d) None
- 07.09. The diameter of spindle 355mm is generally used in
 a) Horizontal boring machine b) Portable drilling machine
 c) Multiple spindle drilling machine d) None
- 07.10. In precision boring machine the tool tips are made with.....
 a) Cemented carbide b) Diamond tipped c) Both d) None
- 07.11. In horizontal boring machine the tool revolves in aaxis.
 a) Horizontal b) Vertical c) Both a & b d) None
- 07.12. The supports the cutter for boring operations.
 a) Head Stock b) Boring bar c) Saddle d) None

Chapter: Workshop Machines-Drilling & Boring machine							
Question	Answer	Question	Answer	Question	Answer	Question	Answer
07.01	c	07.04	a	07.07	c	07.10	c
07.02	a	07.05	a	07.06	b	07.11	a
07.03	c	07.06	c	07.09	a	07.12	b

Chapter: Workshop Machines-Shaper & Planner

- 08.01. Ram is a component of.....
 a) Shaper b) Drilling machine c) Boring Machine d) None
- 08.02. In a shaper material cutting takes place in.....stroke.
 a) Forward b) Reverse c) Both d) None
- 08.03. In a shaper the forward to return stroke time ratio is
 a) 3:1 b) 3:2 c) 2:1 d) None
- 08.04. Shaper tool for hard materials is.....
 a) of HSS b) Carbide tipped c) Both a & b d) None
- 08.05. In a Shaper..... reciprocates.
 a) Tool b) Job c) Both a & b d) None
- 08.06. In a Planer, tools are held vertically in the tool head mounted on cross-rail.
 a) True b) False
- 08.07. In a planerreciprocates.
 a) Tool b) Job c) Both a & b d) None
- 08.08. In a shaper feed is given by the lateral movement of the.....
 a) Tool b) Job c) Both a & b d) None
- 08.09. More than one tool may be mounted in a.....
 a) Shaper b) Planner c) Both a & b d) None
- 08.10. For generating flat surfaces on heavy parts.....is most suitable.
 a) Shaper b) Planner c) Both a & b d) None

Chapter: Workshop Machines-Shaper & Planner							
Question	Answer	Question	Answer	Question	Answer	Question	Answer
06.01	a	06.04	b	06.07	b	06.10	b
06.02	a	06.05	a	06.06	a		
06.03	b	06.06	a	06.09	b		

Chapter: Workshop Machines-Slotting & Grinding machine

- 09.01. In a slotter the ram holding the tool reciprocates in a.....
a) Horizontal axis b) Vertical axis c) Both a & b d) None
- 09.02. In a vertical shaper the ram can be swiveled not more than.....to the vertical.
a) 2° b) 5° c) 90° d) None
- 09.03. Removal of large amount of metal takes place in.....
a) Puncher slotter b) Precision slotter c) Both a & b d) None
- 09.04. The stroke length of ram of a general purpose or precision slotter usually ranges from 80 to 900mm.
a) True b) False
- 09.05. In a slotter tool, cutting pressure acts perpendicular to the tool length.
a) True b) False
- 09.06. In a slotter tool, no side rake is given.
a) True b) False
- 09.07. Grinding is used to remove comparatively little material 0.25mm to 0.5mm.
a) True b) False
- 09.08. Silicon carbide (SiC) is aAbrasives.
a) Natural b) Artificial c) Both a & b d) None
- 09.09. Vitriified bond is denoted by the letter 'V'.
a) True b) False
- 09.10. Grit (Grain size) denoted by 80 is.....
a) Coarse b) Medium c) Fine d) Very fine
- 09.11. Hardness if bond denoted by letter Q represents.....grade.
a) Soft b) Medium c) Hard d) None
- 09.12. Structure denoted by a digit less than equal to 8 represents.....structure.
a) Open b) Dense c) both d) none
- 09.13. A grinding wheel is marked as WA 46K 5V17. The letter 'A' represents Abrasive type Al_2O_3 .
a) True b) False

Chapter: Workshop Machines-Slotting & Grinding machine							
Question	Answer	Question	Answer	Question	Answer	Question	Answer
09.01	b	09.05	b	09.09	a	09.13	a
09.02	b	09.06	a	09.10	c		
09.03	a	09.07	a	09.11	c		
09.04	a	09.08	b	09.12	a		

Chapter: Workshop Machines-Milling machine & Gear cutting

- 10.01. Multiple tooth cutter is used in
- a) Lathe b) Slotter c) Milling Machine d) None
- 10.02. Knee is a component of a
- a) Lathe b) Slotter c) Milling Machine d) None
- 10.03. Arbor is a component of a column and knee type milling machine.
- a) True b) False
- 10.04. The most common and accurate method of Gear manufacturing is
- a) Casting b) Stamping c) Machining d) None
- 10.05. The end mills are used to cut gears of large modules from 20mm and larger.
- a) True b) False
- 10.06. The involves the production of all the teeth on a gear simultaneously by a ring of formed blades.
- a) Shear speed process b) Template process
c) Generating process d) None
- 10.07. The template method is employed for producingspur gear teeth.
- a) Very large b) Small c) Medium d) None
- 10.08.Gears cannot be produced by generating method.
- a) Spur b) Cycloidal c) Both a & b d) None
- 10.09. In formed cutter method accuracy is.....
- a) Very poor b) Very fine c) Both a & b d) None
- 10.10. Mathematically correct tooth profile of gears produced in.....methods.-
- a) Generating b) Template c) Formed cutter d) None

Chapter: Workshop Machines-Milling machine & Gear cutting							
Question	Answer	Question	Answer	Question	Answer	Question	Answer
10.01	c	10.04	c	10.07	a	10.10	a
10.02	c	10.05	a	10.06	b		
10.03	a	10.06	a	10.09	a		

- 13.03. Pitch Dia = (Major Dia) – (.....)
 a) Single Depth of Thread b) Double Depth of Thread
 c) Both a & b d) None
- 13.04. In case of single start thread
 a) Pitch = lead b) Pitch < Lead c) Pitch > Lead d) None
- 13.05. The angle of inclination of thread is called
 a) Angle of Thread b) Helix Angle c) Both a & b d) None
- 13.06. Included angle of BSW thread is 55° and roots and crest are
 a) Rounded b) Angular c) Parallel d) None
- 13.07. British Standard fine threads have effective and core diameters than the BSW threads.
 a) Larger b) Smaller c) Equal d) None
- 13.08. American National Thread has an included angle of 60° and crests and roots of this thread are
 a) Rounded b) Parallel c) Either a or b d) None
- 13.09. International Standard Thread (Unified Thread) has roots
 a) Rounded b) Parallel to axis c) Either a or b d) None
- 13.10. In the Metric thread designation M10 x 1.5 the term 10 indicates
 a) Nominal dia in mm b) Threads per cm c) Either a or b d) None
- 13.11. The depth and thickness of the square thread is each equal to half of the pitch.
 a) True b) False
- 13.12. Acme thread is thicker at the root and less thick at the crest.
 a) True b) False
- 13.13. Lead Screw of the lathe is provided with thread.
 a) Acme b) Square c) V d) None
- 13.14. Coupler of railway carriage and electrical bulbs use thread.
 a) V b) Knuckle c) Buttress d) None
- 13.15. Buttress thread is suitable only when the force acts entirely in one direction.
 a) True b) False

Chapter: Threads							
Question	Answer	Question	Answer	Question	Answer	Question	Answer
13.01	a	13.05	b	13.09	a	13.13	a
13.02	b	13.06	a	13.10	a	13.14	b
13.03	a	13.07	a	13.11	a	13.15	a
13.04	a	13.08	b	13.12	a		

