SUB-DISCIPLINE: WORKSHOP TECHNOLOGY

Chapter: Smithing and Forging

01.01. Forging is a plastic deformation process.
a) True b) False

01.02. Low and medium carbon steels are readily forged.
a) True b) False

01.03. High carbon and alloy steels are readily forged.
a) True b) False

01.04. Stainless steels are forged specially for aerospace uses.
a) True b) False

01.05. Forgeability decreases with temperature upto a point at which grain growth becomes excessive.
a) True b) False

01.06. Which of the following is a good forgeable material?
a) Carbon/low alloy steels b) Martensitic stainless steel
c) Iron base super alloys d) None

01.07. Economical, easily controlled and mostly used furnace is ……
a) Gas, oil b) Electric Resistance c) Induction heating d) None

01.06. Temperature to begin forging for soft low carbon steel is ……..
a) 1250^0C-1300^0C b) 800-850^0C c) Both d) None

01.09 Brass and Bronze alloys are heated to about…….for forging.
a) 600-950^0C b) 350^0C-500^0C c) Both d) None

01.10. Welding is a typical forging operation ……..
a) True b) False

01.11. Which of the following is not used in hand forging?
a) Anvil b) Tongs c) Feeler d) Presses

01.12. Large machine part can be forged by hand.
a) True b) False

01.13. Hand forging does not require repeated heating.
a) True b) False

01.14. Anvil block serves as a rigid support in power hammering.
a) True b) False

01.15. Heavy falling part of hammer is called ram.
a) True b) False

01.16. In smith forging the working surfaces of both the upper and lower dies are ….
a) Flat and horizontal b) With closed impression c) Both d) None

01.17. Capacity of a hammer is determined by ……..
a) Weight b) Size c) Shape d) None

01.18. Helve hammers are operated by ……
a) Eccentric b) Rope c) Chain d) Toggle

01.19. Trip hammers are actuated by …….
a) Eccentric b) Rope c) Chain d) Toggle

01.20. Lever spring Hammers are operated by ……
a) Rocking level b) Toggle c) Chain d) None

01.21. Pneumatic hammers has compressor cylinder and ram cylinders.
a) True b) False

01.22. Steam or air hammers inbuilt compressor.
a) True b) False

Chapter: Smithing and Forging							
Question	**Answer**	**Question**	**Answer**	**Question**	**Answer**	**Question**	**Answer**
01.01	a	01.07	a	01.13	b	01.19	d
01.02	a	01.06	a	01.14	a	01.20	a
01.03	b	01.09	a	01.15	a	01.21	a
01.04	a	01.10	a	01.16	a	01.22	b
01.05	b	01.11	c	01.17	a		
01.06	a	01.12	b	01.18	a		

Chapter: Welding and Related Processes

02.01. Application of pressure and filler metal is essential in welding.
a) True b) False

02.02. Plastic welding is also called……welding.
a) Pressure b) Fusion c) Non-pressure d) None

02.03. Fusion welding is also called……..welding.
a) Pressure b) Fusion c) Non-pressure d) None

02.04. In cold welding…….is applied.
a) Heat b) Pressure c) Both d) None

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) 2500^0C b) 1539^0C c) 3200^0C 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) $1kg/cm^2$ b) $2kg/cm^2$ c) $154kg/cm^2$ d) None

02.17. Oxygen cylinders are charged at a pressure of about …….
a) $1kg/cm^2$ b) $2kg/cm^2$ c) $154kg/cm^2$ 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) 150-350^{0}C . b) 600-850^{0}C 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) 150-350^{0}C b) 600-850^{0}C c) 350^{0}C-600^{0}C 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		

Chapter: Bench Work and Fitting

03.01. Vice consists of both jaws movable.
a) True b) False

03.02. Vice jaws have replaceable jaw plates.
a) True b) False

03.03. For common work vice jaw opening is…….
a) 80-140mm b) 95-180mm c) 400-500mm d) None

03.04. Philips screw driver has……..shape.
a) Flat b) Star c) Any d) None

03.05. While using screw drivers, jobs…….kept in hand.
a) Should be b) should not be c) Any d) None

03.06. For taking out Circlip from engine-piston …….Circlip pliers is used.
a) External b) Internal c) Both d) None

03.07. For screwing/unscrewing rail clamp……..spanner is used-
a) Open ended b) Adjustable c) Box d) C

03.08. Allen bolts have…….
a) Hex head b) Hex groove in head c) Slot in head d) None

03.09. Stud extractor is used for removing broken bolts/studs.
a) True b) False

03.10. Chisels available on machines are normally ……. Chisels.
a) Hot b) Cold c) Any d) None

03.11. Hacksaw blade should be fitted with teeth slope …… from handle.
a) Away from b) Towards c) Any d) None

03.12. During Hacksaw cutting force is more in ……. stroke.
a) Forward b) Backward c) Any d) None

03.13. Hacksaw operation should be done ……. Strokes in one minute.
a) 40-50 b) 10-20 c) 60-90 d) None

03.14. Hard material should be applied …….. forces in Hacksaw cutting.
a) Small b) Large c) Any d) None

03.15. For threads repair ……. File is used.
a) Flat b) Needle c) Square d) Any

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 are ……taps 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 a ……..standard instrument-
a) End b) Length c) Both d) None

04.04. Graduated rule or scale is a ……..Instrument.
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

04.07. The micrometer screw has a pitch of…….
a) 1mm b) 0.5mm c) 2mm d) 10mm

04.08. Least count of micrometer with 50 divisions on thimble and pitch equal to 0.5mm will be ……
a) 0.01mm b) 0.02mm c) 0.1mm d) 0.2mm

04.09. Reading of micrometer = Main Scale reading + Least count x No. of divisions passed reference line on thimble.
a) True b) False

04.10. Vernier-Caliper has Vernier scale whose 50 divisions correspond to 49mm on main scale. The Least count will be ……
a) 0.01mm b) 0.02mm c) 2mm d) None

04.11. Reading of Caliper = Main scale reading + Least count x Vernier scale reading.
a) True b) False

04.12. Comparators are used for simple and accurate comparison of parts.
a) True b) False

04.13. In dial Indicator with 100 divisions, turn of pointer by one division indicates……travel of plunger.
a) 1mm b) 0.01mm c) 0.02mm d) None

04.14. Optical comparators suffer less wear during usage than the mechanical type.
a) True b) False

04.15. Protractor is used for…….measurement.
a) Linear b) Angular c) Both d) None

04.16. Direct measurement of angle is done by ……
a) Bevel protractor b) Sine Bar c) Both d) None

04.17. Where precision in measurement of angles is required, …….is used.
a) Bevel gauge b) Angle gauge c) Both d) None

04.18. Taper micrometers are ten times faster than older conventional methods.
a) True b) False

04.19. Gripping of ring spanner is better than open end spanner.
a) True b) False

04.20. Screwing and unscrewing is faster with ……
a) Open end spanner b) Ring spanner c) Both d) None

04.21. Allen Key is used for……head bolts.
a) Hex b) Round c) Both d) None

04.22. Allen key consists…….sides (faces).
a) 6 b) 4 c) 3 d) None

04.23. Wing nuts are used for tightening/loosening hacksaw.
a) True b) False

04.24. Finisher tap has……..threads ground in Tapper-
a) 6-8 b) 3-5 c) 1-2 d) None

04.25. Which of the following is not a component of an external micrometer?
a) Graduated sleeve b) Depth Gauge c) Thimble d) None

04.26. Which of the following is not a component of Vernier caliper?
a) Fix jaw b) Depth Gauge c) Thimble d) None

Chapter: Measurement and Inspection							
Question	**Answer**	**Question**	**Answer**	**Question**	**Answer**	**Question**	**Answer**
04.01	b	04.06	a	04.15	b	04.22	a
04.02	a	04.09	a	04.16	a	04.23	a
04.03	a	04.10	b	04.17	b	04.24	c
04.04	b	04.11	a	04.18	a	04.25	b
04.05	a	04.12	a	04.19	a	04.26	c
04.06	a	04.13	b	04.20	a		
04.07	b	04.14	a	04.21	b		

Chapter: Limit, Fits and Surface Quality

05.01. A system which ensures that one component will assemble correctly with any mating component; both being chosen at random is called interchangeable system or a system of limits and fits.
a) True b) False

05.02. Selective assembly is that in which each part must be selected to fit its mating part.
a) True b) False

05.03. Basic size is the size in relation to which higher limits of variation are determined.
a) True b) False

05.04. Nominal size is used in the precision measurement of parts.
a) True b) False

05.05. Upper deviation is positive or zero.
a) True b) False

05.06. Lower deviation is positive or zero.
a) True b) False

05.07. Tolerance is equal to algebraic difference between the upper and lower deviations and has an absolute value without sign.
a) True b) False

05.08. Tolerance is the difference between the maximum limit of size and minimum limit of size.
a) True b) False

05.09. $25^{+0.05/-0.03}$ is an example of unilateral tolerance.
a) True b) False

05.10. In an example $40^{+0.08/-0.02}$ tolerance is 0.10mm
a) True b) False

05.11. Enveloping surface is male part.
a) True b) False

05.12. Enveloped surface is female part-
a) True b) False

05.13. The relation between the two parts where one is inserted into the other with a certain degree of tightness or looseness is known as a fit.
a) True b) False

05.14. When shaft is smaller than hole, the allowance is negative.
a) True b) False

05.15. In a clearance fit, there is a positive allowance between the largest possible shaft and the smallest possible hole.
a) True b) False

05.16. In an interference fit, there is a positive allowance between the largest possible shaft and smallest possible hole.
a) True b) False

05.17. Transition fit does not guarantee either interference or a clearance.
a) True b) False

Chapter: Limit, Fits and Surface Quality							
Question	**Answer**	**Question**	**Answer**	**Question**	**Answer**	**Question**	**Answer**
05.01	a	05.06	b	05.11	b	05.16	b
05.02	a	05.07	a	05.12	b	05.17	a
05.03	b	05.06	a	05.13	a		
05.04	b	05.09	b	05.14	b		
05.05	a	05.10	a	05.15	a		

Chapter: Workshop Machines-Lathe machine

06.01. The first useful from of lathe was made by H. Moudslay in the year……..
a) 1700 b) 1800 c) 1900 d) None

06.02. In lathe machine operation the work piece ……..
a) Revolves b) Reciprocates c) Both d) None

06.03. The bed provides inverted guide ways for controlled movement of……..
a) Carriage b) Tool post c) Both d) None

06.04. The mechanism for driving and altering spindle speed is housed in……
a) Head Stock b) Tail stock c) Carriage d) None

06.05. For supporting the other end of work piece……is used.
a) Head Stock b) Tail stock c) Carriage d) None

06.06. Cross slide is used to give…….feed to the tool.
a) Longitudinal b) Transverse c) Both d) None

06.07. Graduated Circle base is carried by…….
a) Saddle b) Cross slide c) Compound rest d) None

06.08. In facing operation tool is fed ……to the axis of rotation of the job.
a) Perpendicular b) Parallel c) Both d) None

06.09. Straight turning is the lathe operation in which tool is fed……to the lathe axis.
a) Parallel b) Perpendicular c) Both d) None

06.10. In thread cutting longitudinal tool feed should be …….the pitch of the thread to be cut per revolution of the work piece.
a) Equal to b) Less than c) Greater than d) None

06.11. Embossing a diamond shaped pattern on the surface of a work piece is the process of.....
a) Turning b) Chamfering c) Knurling d) Milling

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 a ……axis.
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 planer ……reciprocates.
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) 2^0 b) 5^0 c) 90^0 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 a ……..Abrasives.
a) Natural b) Artificial c) Both a & b d) None

09.09. Vitrified 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 producing …….spur 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		

Chapter: Workshop Machines-Press, jigs & fixtures

11.01. In press, metal is formed to the desired shape without removal of chips.
a) True b) False

11.02. A punch is usually the……member of the press tool which is mounted on the lower end of the ram-
a) Upper b) Lower c) Either a or b d) None

11.03. A die has an opening or cavity to receive the punch
a) True b) False

11.04. Punches and dies are generally made of ……
a) HSS b) High Carbon Steel (HCS) c) Either a or b d) None

11.05. In the case of punching, a……hole is produced.
a) Cylindrical b) Other than cylindrical c) Both a & b d) None

11.06. In……the metal is stressed in both tension and compression at the two sides of the neutral axis.
a) Shearing b) Bending c) Twisting d) None

11.07. In a compound die two or more cutting operations are accomplished at one station of a press in every stroke of the ram.
a) True b) False

11.08. A fixture is a device which guides the cutting tool.
a) True b) False

11.09. Jigs are generally heavier than fixtures.
a) True b) False

11.10. The use of jigs and fixtures requires marking outs measuring and other setting methods before machining.
a) True b) False

Chapter: Workshop Machines-Press, jigs & fixtures							
Question	**Answer**	**Question**	**Answer**	**Question**	**Answer**	**Question**	**Answer**
11.01	a	11.04	a	11.07	a	11.10	b
11.02	a	11.05	a	11.06	b		
11.03	a	11.06	b	11.09	b		

Chapter: Workshop Machines-Broaching & sawing machine

12.01. Contoured surfaces cannot be produced by broaching.
a) True b) False

12.02. A broach is a multiple edge cutting tool.
a) True b) False

12.03. Broaching is possible only on internal surfaces.
a) True b) False

12.04. …….. broaches are used extensively in the broaching of cast iron.
a) Tungsten b) Carbide c) Both a & b d) None

12.05. Nearly all horizontal broaching machines are……..type.
a) Pull b) Push c) Both a & b d) None

12.06. In a broaching machine specification 1000-10, stroke length is …….
a) 1000 mm b) 1000 x 10 mm c) 10 m d) None

12.07. In sawing, feed may be given at ……
a) Only saw b) The work c) Either saw or work d) None

12.08. ……Saws are represented by power hacksaws.
a) Reciprocating b) Circular c) Rectangular d) None

12.09. The three tooth sets are……..
a) Raker, alternate, wavy b) Standard, skip and hook
c) Both a & b d) None

12.10. The three tooth forms are …….
a) Raker, alternate, wavy b) Standard, skip and hook
c) Both a & b d) None

Chapter: Workshop Machines-Broaching & sawing machine							
Question	**Answer**	**Question**	**Answer**	**Question**	**Answer**	**Question**	**Answer**
12.01	b	12.04	b	12.07	c	12.10	b
12.02	a	12.05	a	12.06	a		
12.03	b	12.06	a	12.09	a		

Chapter: Threads

13.01. Thread is nothing but a helical groove.
a) True b) False

13.02. In India ……. hand threads are mostly used.
a) Left b) Right c) Both a & b d) None

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 55^0 and routes 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 60^0 and crests and routes 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	13.06	b	13.12	a		

Chapter: Quality Controls

14.01. Inspection is tool of quality control.
a) True b) False

14.02. In charts for $\bar{X}$ and R, the term $\bar{X}$ represents ……
a) Average b) Range c) Fraction defective d) None

14.03. Control charts for attributes are called……..
a) p charts b) c chart c) Both a & b d) None

14.04. Control charts for defectives are called……..
a) p charts b) c chart c) Both a & b d) None

14.05. In c chart, there are 200 defects in 25 machines then UCLc = ……..
a) 8 b) 16.5 c) 0 d) 200

14.06. In c chart, there are 200 defects in 25 machines then LCLc = ……
a) 8 b) 16.5 c) 0 d) 200

14.07. ISO 9001, ISO 9002, ISO 9003 detail the…….
a) Requirements b) Guidelines c) Both a & b d) None

14.08. …….. Quality system is the model for quality assurance in final inspection and test.
a) ISO 9001 b) ISO 9002 c) ISO 9003 d) None

14.09. ISO……. is a family of international standards for quality management and assurance.
a) 9000 b) 9004 c) 9001 d) None

14.10. In its most basic form the ISO 9000 requires that **you Say what you do, Do what you say, and Record what you do.**
a) True b) False

Chapter: Quality Controls					
Question	**Answer**	**Question**	**Answer**	**Question**	**Answer**
14.01	a	14.05	b	14.09	a
14.02	a	14.06	c	14.10	a
14.03	a	14.07	a		
14.04	b	14.08	c		