

FITTER

NSQF LEVEL - 5

1st Year

QUESTION BANK

SECTOR : Production & Manufacturing



Directorate General of Training

**DIRECTORATE GENERAL OF TRAINING
MINISTRY OF SKILL DEVELOPMENT & ENTREPRENEURSHIP
GOVERNMENT OF INDIA**



**NATIONAL INSTRUCTIONAL
MEDIA INSTITUTE, CHENNAI**

Post Box No. 3142, CTI Campus, Guindy, Chennai - 600 032

Sector : Production & Manufacturing
Duration : 2 - Years
Trade : Fitter - Question Bank - NSQF Level - 5
1st Year

Copyright © 2019 National Instructional Media Institute, Chennai

First Edition : June, 2019

Copies : 1,000

Rs.120/-

All rights reserved.

No part of this publication can be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopy, recording or any information storage and retrieval system, without permission in writing from the National Instructional Media Institute, Chennai.

Published by:

NATIONAL INSTRUCTIONAL MEDIA INSTITUTE

**P. B. No.3142, CTI Campus, Guindy Industrial Estate,
Guindy, Chennai - 600 032.**

Phone : 044 - 2250 0248, 2250 0657, 2250 2421

Fax : 91 - 44 - 2250 0791

email : chennai-nimi@nic.in, nimi_bsnl@dataone.in

Website: www.nimi.gov.in

Content

Sl. No.	Module Name	Pg. No.
Semester - 1		
1	Module - 1 : Safety	1
2	Module - 2 : Basic Fitting	4
3	Module - 3 : Sheet Metal	32
4	Module - 4 : Welding	44
Semester - 2		
1	Module - 1 : Drilling	50
2	Module - 2 : Fitting Assembly	70
3	Module - 3 : Turning	80
4	Module - 4 : Basic Maintenance	88
	Keys	91

Module - 1 : Safety**Level 1**

1 Which one is the personnel safety?

- A Keep the machine clean
- B Concentrate on your work
- C Keep the gang way and floor clean
- D Keep the tools at their proper place

2 Name the mandatory symbol



- A Stop
- B Give way
- C Guarded
- D Unguarded

3 Flammable or liquefiable solids are classified as.

- A Class 'A' fire
- B Class 'B' fire
- C Class 'C' fire
- D Class 'D' fire

4 Which is the immediate life saving procedure?

- A First Aid
- B Call a doctor
- C Intensive care
- D Medical treatment

5 Name the warning sign.



- A School
- B Guarded
- C Unguarded
- D Pedestrian crossing

6 What is the class of fire caused by fire wood, paper, cloth?

- A Class 'A' fire
- B Class 'B' fire
- C Class 'C' fire
- D Class 'D' fire

7 Which fire extinguisher filled with carbon tetra chloride and bromochloro-difluoro methane (BCF)?

- A Carbon dioxide
- B Halon extinguisher
- C Foam extinguisher
- D Dry powder extinguisher

8 Which comes under mechanical occupational hazards?

- A Noise
- B Toxic
- C Unskilled
- D Unguarded machinery

9 How to stop bleeding of injured person?

- A Tie bandage
- B Apply ointment
- C Apply tincture over the wound
- D Apply pressure over the wound

10 What is the name of sign?



- A School
- B Guarded
- C Unguarded
- D Pedestrian crossing

11 What are the three factors causes fire?

- A Fuel, Heat, Oxygen
- B Oxygen, Fuel, Nitrogen
- C Heat, Nitrogen, Oxygen
- D Fuel, Carbon-dioxide, Heat

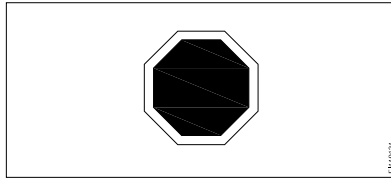
12 What is the period referred as 'golden hours'?

- A First 30 minutes after incident
- B First 30 minutes after first aid
- C First 45 minutes of admission
- D First 60 minutes after treatment

13 What is the first step of avoiding accident in work place?

- A By wearing safety equipment
- B Doing things in one's own way
- C By observing safety precautions
- D Doing things with a highly skilled working practice

14 What does the symbol denotes?

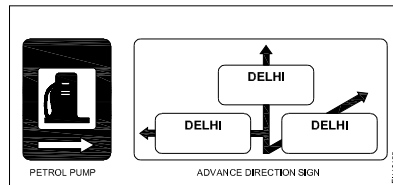


- A Stop
- B Give way
- C Pedestrian crossing
- D Over taking prohibited

15 What is the colour code of bins for waste paper segregation?

- A Red
- B Blue
- C Black
- D Green

16 What is the kind of road sign?



- A Police signal
- B Cautionary sign
- C Mandatory sign
- D Information sign

17 Which fire extinguisher is used for flammable and running liquid fire?

- A Foam extinguisher
- B Halon extinguisher
- C Dry powder extinguisher
- D Carbon dioxide (CO₂) extinguisher

18 What "A" denotes in ABC of first aid ?

- A Air way
- B Attention
- C Arresting
- D Atmosphere

19 What is the process of breaking down the materials into organic compounds and can be used as manure?

- A Land fills
- B Recycling
- C Composting
- D Burning waste material

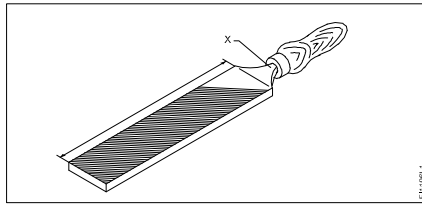
20 What is the colour code for plastic waste bin?

- A Red
- B Blue
- C Green
- D Yellow

Module - 2 : Basic fitting

Level 1

1 Name the part of file marked as "x".

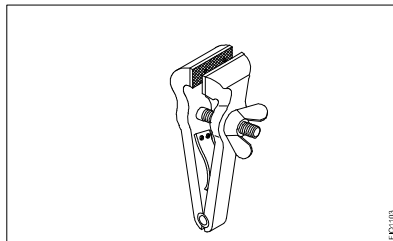


- A Heel
B Tang
C Ferrule
D File length

2 Which marking media is poisonous?

- A White wash
B Prussian blue
C Copper sulphate
D Cellulose lacquer

3 What is the name of the vice?

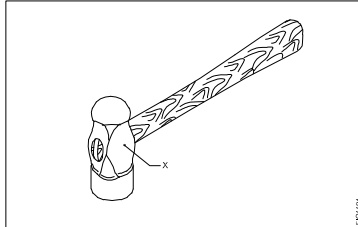


- A Pin vice
B Pipe vice
C Hand vice
D Quick releasing vice

4 Which chisel used for squaring materials at the corners, joints?

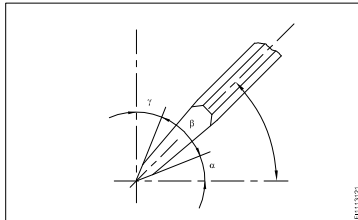
- A Flat chisel
B Cross cut chisel
C Diamond point chisel
D Half round nose chisels

5 Name the part of a hammer marked as 'x'.



- A Face
- B Pein
- C Cheek
- D Eye hole

6 Which angle is represented by the symbol “ γ ” on the cutting chisel?

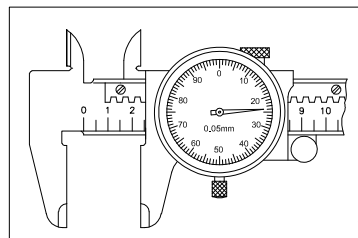


- A Rake angle
- B Wedge angle
- C Cutting angle
- D Clearance angle

7 Name the property of metal which can be drawn into wire without rupture.

- A Ductility
- B Tenacity
- C Elasticity
- D Malleability

8 Read the measurement in the dial caliper.

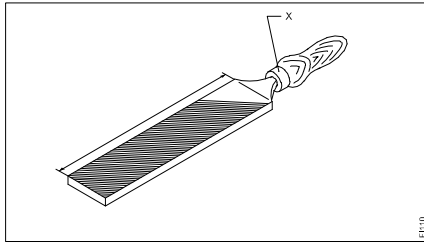


- A 24.2 mm
- B 24.8 mm
- C 25.2 mm
- D 26.2 mm

9 Which is an integral part of the stock in vernier bevel protractor?

- A Disc
- B Dial
- C Blade
- D Main scale

10 Name the part marked as 'x' of the file.



- A Heel
- B Edge
- C Ferrule
- D Shoulder

11 Which file is used to make the job close to the finishing size?

- A Single cut file
- B Curved cut file
- C Second cut file
- D Double cut file

12 Which file has the parallel edges throughout the length?

- A Hand file
- B Bastard file
- C Rasp cut file
- D Single cut file

13 What is the material to manufacture bench vice?

- A Tool steel
- B High carbon steel
- C Medium carbon steel
- D Cast iron

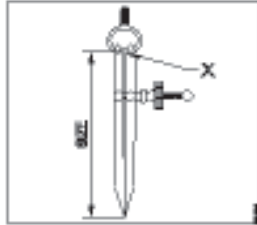
14 Which marking media provide clear lines on machine finished surfaces?

- A White wash
- B Prussian blue
- C Copper sulphate
- D Cellulose lacquer

15 Which caliper is used to mark the centre of round bar?

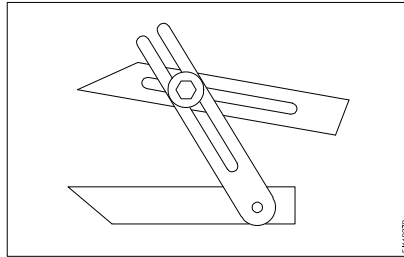
- A Jenny caliper
- B Inside caliper
- C Outside caliper
- D Firm joint caliper

16 Name the part marked as 'x'.



- A Leg
- B Peg
- C Washer
- D Fulcrum

17 Name the angular measuring instrument.



- A Bevel gauge
- B Bevel protractor
- C Universal bevel gauge
- D Universal surface gauge

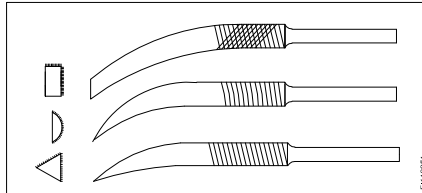
18 Which is used for filling narrow grooves and angles above 10°?

- A Square file
- B Half round file
- C Triangular file
- D Knife edge file

19 Which chisel is used for cutting oil grooves?

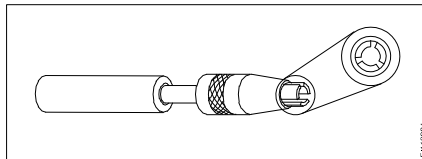
- A Flat chisel
- B Web chisel
- C Half round nose chisel
- D Diamond point chisel

20 Name the file.



- A Barrot file
- B Riffler file
- C Crossing file
- D Mill saw file

21 What is the name of vice?



- A Pin vice
- B Pipe vice
- C Hand vice
- D Machine vice

22 Which grinding machine is used for heavy duty work?

- A Bench grinder
- B Portable grinder
- C Pedestal grinder
- D Surface grinder

23 Which chisel is used for separating materials after chain drilling?

- A Web chisel
- B Flat chisel
- C Cross cut chisel
- D Diamond point chisel

24 Which file is used for sharpening the teeth of wood working saws?

- A Barrete file
- B Tinker's file
- C Millsaw file
- D Riffler file

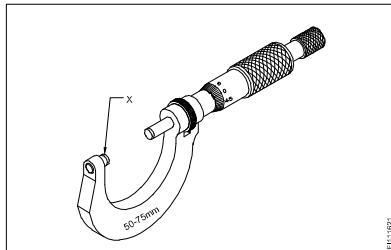
25 Where will be the weight of the hammer stamped?

- A Face
- B Pein
- C Cheek
- D Eye hole

26 Name the property of metal to resist the effect of tensile forces without rupture.

- A Ductility
- B Tenacity
- C Elasticity
- D Malleability

27 Name the part marked as 'x'.

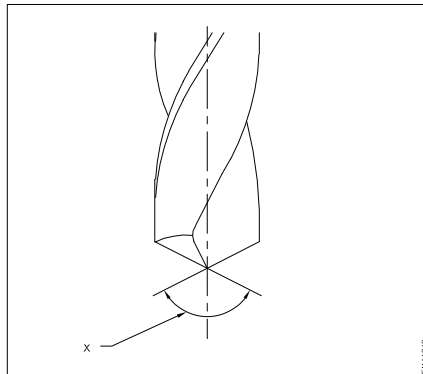


- A Anvil
- B Thimble
- C Spindle
- D Spindle lock

28 What is the accuracy of metric outside micrometer?

- A 0.01 mm
- B 0.001 mm
- C 0.02 mm
- D 0.002 mm

29 Name the part marked as 'x'.



- A Lip
- B Land
- C Flank
- D Point angle

30 Which type of taper is provided in the drill shank?

- A Pin taper
- B Metric taper
- C Morse taper
- D Jarno taper

31 Which is used to remove drills and sockets from the machine spindle?

- A Drift
- B Sleeve
- C Punch
- D Hammer

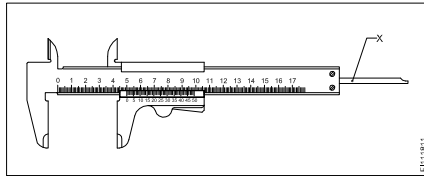
32 Name the tap wrench used in the restricted place.

- A Box type tap wrench
- B 'T' handle tap wrench
- C Solid type tap wrench
- D Double ended adjustable tap wrench

33 What is the unit of feed in drilling operation?

- A m/rev
- B mm/rev
- C m/min
- D mm/min

34 Name the part marked as 'x' in vernier caliper.



- A Beam
- B Fixed bar
- C Depth bar
- D Thumb lever

35 What is the accuracy of protractor head in combination set?

- A 1°
- B 5°
- C 5'
- D 5"

36 What is the accuracy of a try square?

- A 0.02 mm per 10 mm length
- B 0.004 mm per 10 mm length
- C 0.002 mm per 10 mm length
- D 0.001 mm per 10 mm length

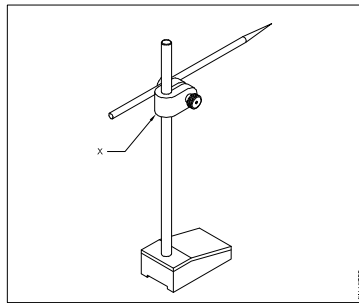
37 Which punch is used for witness marks?

- A Dot punch
- B Pin punch
- C Bell punch
- D Centre punch

38 What is the name of the caliper having one leg with an adjustable divider point and other leg is bent?

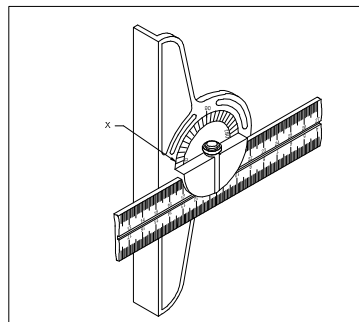
- A Jenny caliper
- B Inside caliper
- C Outside caliper
- D Spring joint caliper

39 What is the name of part marked as 'x' in surface gauge?



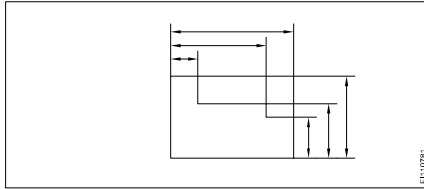
- A Nut
- B Snug
- C Spindle
- D Scriber

40 What is the name of part marked as 'x' in combination set?



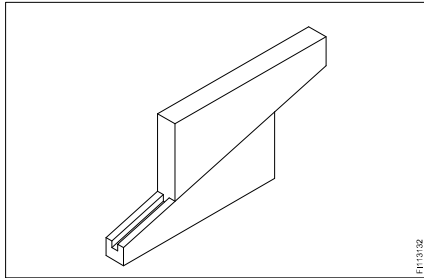
- A Bevel head
- B Centre head
- C Square head
- D Protractor head

41 Which type of datum is followed?



- A Edge datum
- B Point datum
- C Centre line datum
- D Reference line datum

42 What is the name of parallel block?



- A Solid parallel block
- B Tenon parallel block
- C Angular parallel block
- D Adjustable parallel block

43 Which chisel is used for removing materials on the corners of the keyways?

- A Flat chisel
- B Diamond point chisel
- C Cross cut chisel
- D Half round nose chisel

44 Which file is having rows of teeth cut in one direction?

- A Single cut file
- B Curved cut file
- C Second cut file
- D Double cut file

45 Which file is used for filing wood and leather?

- A Hand file
- B Bastard file
- C Rasp cut file
- D Single cut file

46 Which pitch of blade is used for cutting bronze, brass and cast iron?

- A 0.80 mm
- B 1.00 mm
- C 1.40 mm
- D 1.80 mm

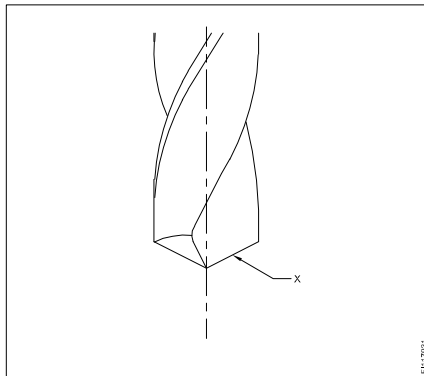
47 Which type of hammer is used for riveting purpose?

- A Sledge hammer
- B Ball pein hammer
- C Cross pein hammer
- D Straight pein hammer

48 What is the unit of cutting speed in drilling operation?

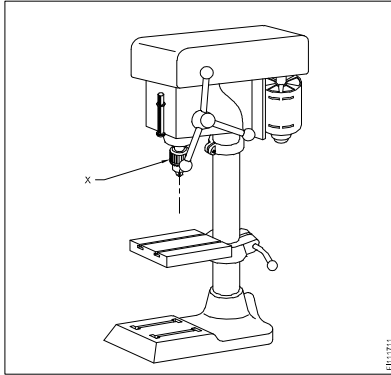
- A metre/ rev
- B mm/ rev
- C m/ min
- D mm/ min

49 What is the name of part marked as 'x' in drill?



- A Lip
- B Land
- C Flank
- D Web

50 What is the name of part marked as 'x' in drilling machine?

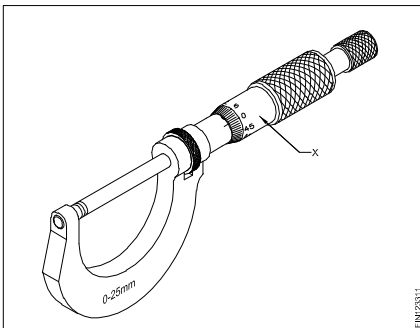


- A Drill chuck
- B Feed handle
- C Driving motor
- D Depth gauge and stop

51 What is the minor diameter of thread?

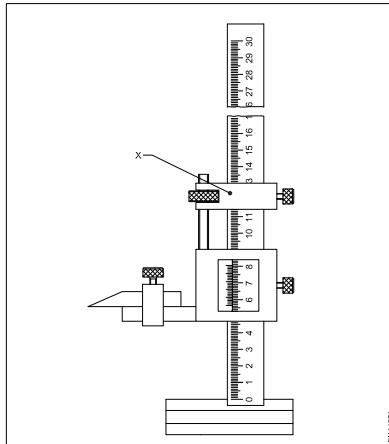
- A Minor dia = Major dia – (2 x pitch)
- B Minor dia = Major dia + (2 x pitch)
- C Minor dia = Major dia + (2 x depth)
- D Minor dia = Major dia – (2 x depth)

52 What is the name of the part marked as 'X'?



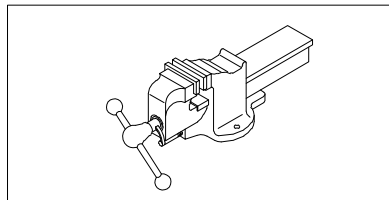
- A Spindle
- B Sleeve
- C Thimble
- D Spindle lock

53 What is the name of the part marked as 'X'?



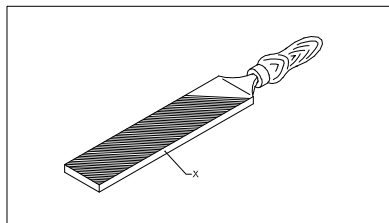
- A Beam
- B Main scale
- C Fine adjusting nut
- D Fine adjusting slide

54 What is the name of the vice?



- A Hand vice
- B Bench vice
- C Tool maker's vice
- D Quick releasing vice

55 What is the name of the part marked as 'X'?

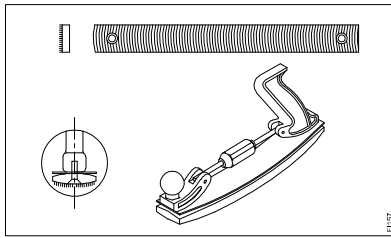


- A Tip
- B Heel
- C Tang
- D Safe edge

56 Which marking media is applied to rough forgings and castings?

- A White wash
- B Prussian blue
- C Copper sulphate
- D Cellulose lacquer

57 Name the file shown.



- A Riffler file
- B Tinkers file
- C Barrette file
- D Crossing file

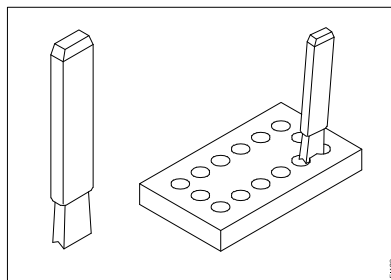
58 What is the pitch of hacksaw blade used to cut conduit and other thin tubes?

- A 0.8mm
- B 1.0mm
- C 1.4mm
- D 1.8mm

59 Which metal cutting saw is used for cutting different profiles?

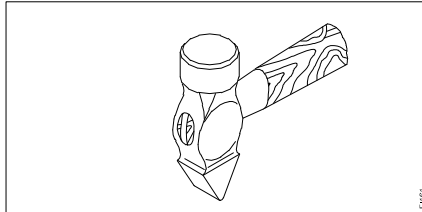
- A Power saw
- B Circular saw
- C Contour band saw
- D Horizontal band saw

60 What is the name of chisel?



- A Flat chisel
- B Web chisel
- C Cross cut chisel
- D Diamond point chisel

61 What is the name of hammer?



- A Mallet hammer
- B Ball pein hammer
- C Cross pein hammer
- D Straight pein hammer

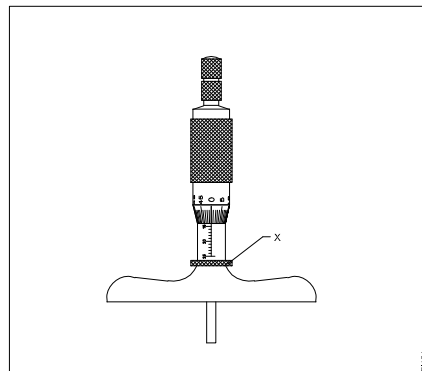
62 What is the name of angle between the axis of chisel and job surface while chipping?

- A Rake angle
- B Point angle
- C Clearance angle
- D Angle of inclination

63 What is the property of metal that permits no permanent distortion before breaking?

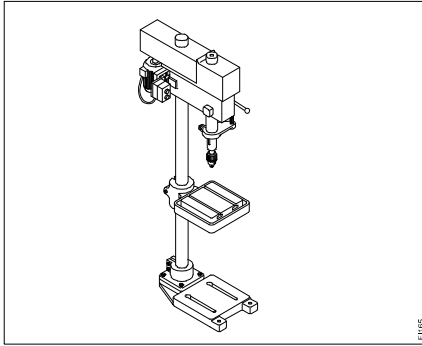
- A Tenacity
- B Hardness
- C Brittleness
- D Toughness

64 Name the part marked as 'x' in depth micrometer.



- A Cap
- B Lock
- C Stock
- D Thimble

65 What is the name of drilling machine?

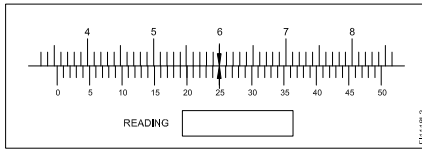


- A Pillar drilling machine
- B Gang drilling machine
- C Bench drilling machine
- D Radial drilling machine

66 What is the accuracy of vernier bevel protractor?

- A 1°
- B 5°
- C 5'
- D 5"

67 What is the reading of vernier caliper?



- A 30.20mm
- B 30.40mm
- C 35.20mm
- D 35.50mm

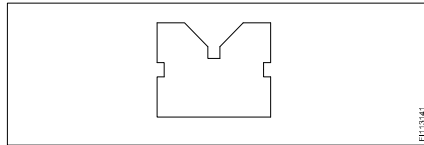
68 Which part of universal surface gauge is used to set scribe at required position exactly?

- A Snug
- B Guide pin
- C Rocker arm
- D Fine adjustment screw

69 Convert one metre into millimetre.

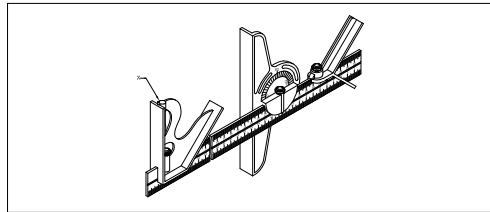
- A 10 mm
- B 100 mm
- C 1000 mm
- D 10000 mm

70 What is the name of 'V' block?



- A 'V' grooved 'V' block
- B Single level single groove 'V' block
- C Double level single groove 'V' block
- D Single level double groove 'V' block

71 What is the name of the part marked as 'x' in combination set?

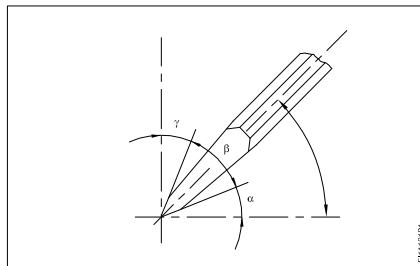


- A Rule
- B Scriber
- C Clamp nut
- D Spirit level

72 Which caliper is used to find the centre of round bars?

- A Inside caliper
- B Jenny caliper
- C Vernier caliper
- D Outside caliper

73 What is the name of angle marked ' α ' in chisel?



- A Rake angle
- B Wedge angle
- C Cutting angle
- D Clearance angle

74 Which chisel is used for cutting curved grooves?

- A Flat chisel
- B Web chisel
- C Cross cut chisel
- D Half round nose chisel

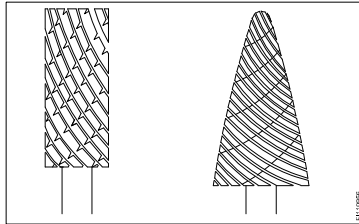
75 What is the weight of hammer used for marking purpose?

- A 200 grams
- B 250 grams
- C 300 grams
- D 450 grams

76 Which chisel is used to remove excess metal from welded joint and castings?

- A Flat chisel
- B Web chisel
- C Cross cut chisel
- D Half round chisel

77 What is the name of file?

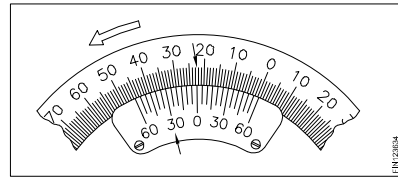


- A Rotary file
- B Tinkers file
- C Barrette file
- D Crossing file

78 What is the name of portion left between flutes in a drill?

- A Lip
- B Web
- C Point
- D Shank

79 What is the reading of vernier bevel protractor?



- A 27° 30'
- B 67° 30'
- C 157° 30'
- D 159° 30'

80 Which part of outside micrometer ensure a uniform pressure between the measuring surface?

- A Anvil
- B Thimble
- C Spindle lock
- D Ratchet stop

81 Which part of the vernier height gauge is an intergral part of the main slide?

- A Jaw
- B Base
- C Beam
- D Jaw clamp

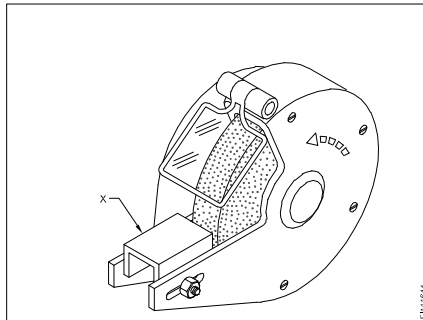
82 Which part of the bevel protractor contact with the inclined surface while measuring?

- A Dial
- B Disc
- C Blade
- D Stock

83 Which part in drilling machine is to achieve different speed?

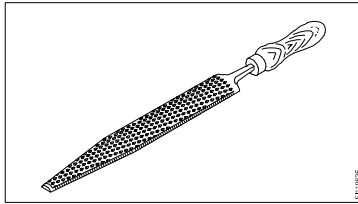
- A Flat pulley
- B Jockey pulley
- C Stepped pulley
- D Fast and loose pulley

84 What is the part marked as 'x' in pedestal grinder?



- A Tool rest
- B Eye shield
- C Wheel guard
- D Grinding wheel

85 What is the name of file?



- A Hand file
- B Rasp cut file
- C Single cut file
- D Curved cut file

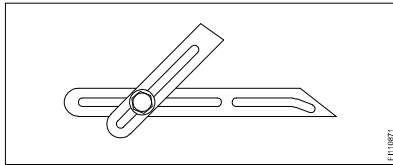
86 What happens if the vice handle is over tightened?

- A Spindle damage
- B Hard jaw damage
- C Fixed jaw damage
- D Movable jaw damage

87 Which metal cutting saw is used to cut large cross section area?

- A Power saw
- B Contour saw
- C Circular saw
- D Horizontal band saw

88 What is the name of gauge?



- A Bevel gauge
- B Angle gauge
- C Surface gauge
- D Universal bevel gauge

89 Which file is used for manufacturing of dies and moulds?

- A Rotary file
- B Tinkers file
- C Barrette file
- D Rasp cut file

90 Which vice is used for holding small work that requires filing or drilling?

- A Pin vice
- B Pipe vice
- C Hand vice
- D Tool maker's vice

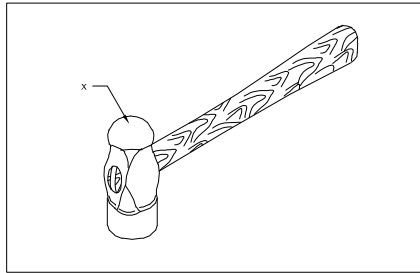
91 Which hacksaw blade is used for cutting along curved lines?

- A HSS blade
- B All hard blade
- C Flexible blade
- D Diamond blade

92 Which chisel is used for cutting keyways?

- A Flat chisel
- B Cross cut chisel
- C Punching chisel
- D Diamond point chisel

93 Name the part marked "X" in hammer?

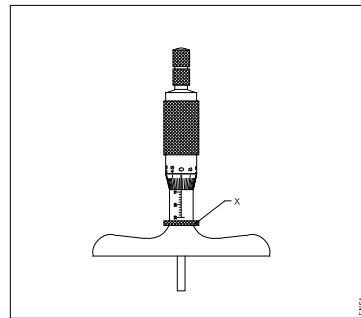


- A Pein
- B Face
- C Cheek
- D Eye hole

94 Name the property of metal that withstand shock or impact?

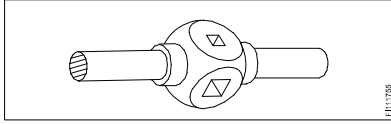
- A Tenacity
- B Hardness
- C Brittleness
- D Toughness

95 What is the name of micrometer?



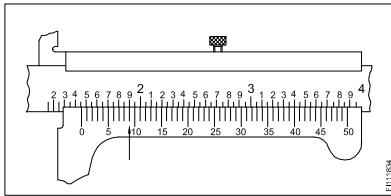
- A Depth micrometer
- B Inside micrometer
- C Vernier micrometer
- D Outside micrometer

96 What is the name of tap wrench?



- A Box type tap wrench
- B Solid type tap wrench
- C 'T' Handle tap wrench
- D Adjustable tap wrench

97 What is the reading of vernier caliper with inch graduations?

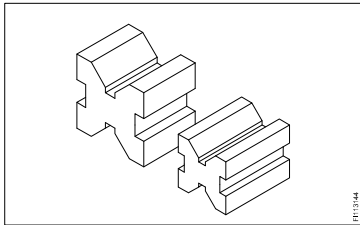


- A 1.068"
- B 1.459"
- C 1.418"
- D 1.409"

98 Which part of combination set is used to mark and check angle of 90° and 45°?

- A Rule
- B Centre head
- C Square head
- D Protractor head

99 Identify the type of "V" blocks?



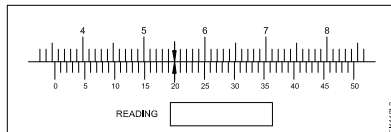
- A Single level single groove
- B Single level double groove
- C Double level single groove
- D Double level double groove

100 How much carbon content of steel is forgeable?

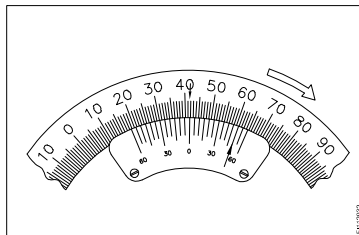
- A Up to 1.2 %
- B Up to 1.7 %
- C Up to 1.9 %
- D Up to 2.1 %

Level 2

- 1 What is the use of a try square?
A To check right angle B To check acute angle
C To check obtuse angle D To check straight angle
- 2 Which part of universal surface gauge holds the scriber?
A Snug B Guide pin
C Rocker arm D Fine adjustment screw
- 3 Why breakage of teeth occur easily while sawing of thin walled work pieces and the start of cut?
A Hand force is too big B Cutting section is too short
C Coarse blade to be used
D Hand force acts only upon few teeth
- 4 What is the spindle movement of one division of thimble with spindle thread of 0.5mm pitch?
A 0.01 mm B 0.10 mm
C 1.00 mm D 10.0 mm
- 5 What is the reading of a vernier caliper?



- A 35.1 mm B 35.2 mm
C 35.3 mm D 35.4 mm
- 6 What is the reading of vernier bevel protractor?



- A 18° 50'
- B 41° 50'
- C 50° 50'
- D 58° 50'

7 What is the use of feeler gauge?

- A Check the width
- B Check the height
- C Check the length
- D Check the gap between the mating parts

8 What operation is carried out in a gang drilling machine?

- A Idle operation
- B Repeated operation of drilling
- C Continuous milling operation
- D Successive operation of drilling

9 What is the purpose of slots provided in the slotted angle plate?

- A Job clamping
- B Easy handling
- C Reduce weight
- D Better appearance

10 In the ISO metric thread, calculate the tap drill size for M 10 x 1.5 thread.

- A 8.2 mm
- B 8.7 mm
- C 8.75 mm
- D 8.65 mm

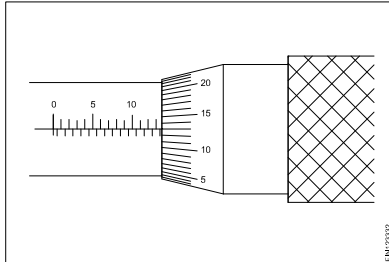
11 Which material is used to manufacture grade 'A' 'V' blocks?

- A Tool steel
- B Carbon steel
- C High quality steel
- D Closely grained cast iron

12 Why the cutting faces of files are slightly bellied on length wise?

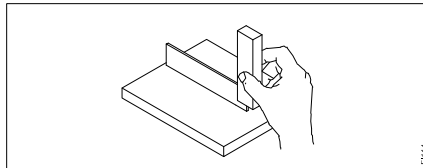
- A Get proper grip over workpiece
- B Filing flat surfaces is made easier
- C Permit clearance between file face and the workpiece
- D Ensure more pressure on workpiece while filing

13 What is the reading of the outside micrometer 50 to 75mm?



- A 63.63 mm
- B 63.00 mm
- C 63.36 mm
- D 63.13 mm

14 What is the name of operation?



- A Marking line at 90°
- B Checking flatness
- C Checking squareness
- D Setting work piece at right angle

15 Which is used to finish the resharpened divider point?

- A File
- B Grinder
- C Scraper
- D Oil stone

16 What is the use of bevel protractor?

- A Check the length
- B Set the work piece
- C Measure the angle
- D Measure the depth

17 Which vice is used for holding hollow cylindrical jobs?

- A Pin vice
- B Pipe vice
- C Hand vice
- D Bench vice

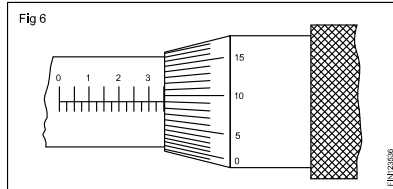
18 Why slight convexity is given on the face of hammer?

- A To make effective striking
- B To avoid digging of the edge
- C To allow even load on striking
- D To prevent damage to work surface

19 Why the hand taps are chamfered at the lead?

- A Aligning
- B Finishing
- C Strengthening
- D Gripping

20 What is the reading of an outside micrometer (British)?



- A 0.309"
- B 0.329"
- C 0.359"
- D 0.360"

21 Why surface plates are made of stress relieved good quality cast iron?

- A To prevent corrosion
- B To prevent breaking
- C To prevent distortion
- D To prevent thermal expansion

22 What is the main advantage of adjustable parallel block?

- A To set different angle
- B To set different depth
- C To set different length
- D To set different height

23 Why chalk is applied on the face of the file?

- A To reduce excessive pressure
- B To increase chip removed rate
- C To reduce penetration and pinning
- D To increase penetration and pinning

24 What is the use of fine pitch hacksaw blades?

- A To cut soft metal
- B To cut high speed steel
- C To cut high carbon steel
- D To cut conduit and other thin tubes

25 Calculate the tap drill size for M10 x 1.25.

- A 8.8 mm
- B 8.7 mm
- C 8.75 mm
- D 8.65 mm

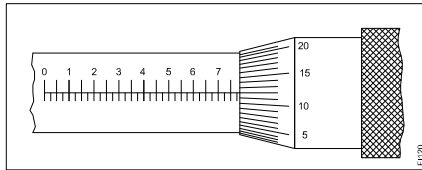
26 What is the principle of micrometer?

- A Sliding
- B Screw and nut
- C Rack and pinion
- D Worm and worm wheel

27 How the wide range of depth can be measured by depth micrometer?

- A Lengthy sleeve
- B Lengthy spindle
- C Adjustable base
- D Equipped with a set of extension rods

28 What is the reading in inch micrometer?



- A 0.789"
- B 0.787"
- C 0.783"
- D 0.715"

29 Which caliper provide fine adjustment of dimensions?

- A Inside caliper
- B Odd leg caliper
- C Outside caliper
- D Spring joint caliper

30 Why marking tables are made up of cast iron?

- A Self lubricating
- B Make more rigidity
- C Maintain the accuracy
- D Prevent thermal expansion

31 What is the method of removing metal chips clogged between the teeth of files?

- A Brush
- B Wire brush
- C Copper strip
- D Chalk powder

32 What is the purpose of "Crowning" on the cutting edge of chisel?

- A Prevent slipping of chisel
- B Prevent digging of corners
- C Allow chisel to move freely on straight line
- D Allow cutting edge to penetrate into the work

33 Which part is the measuring face fitted to the frame of outside micrometer?

- A Anvil
- B Barrel
- C Spindle
- D Ratchet stop

34 How the drill chucks are held on the machine spindle?

- A By arbor
- B By sockets
- C By sleeves
- D By special clamp

35 Which drilling machine, the spindle head is moved towards or away from the column?

- A Pillar drilling machine
- B Gang drilling machine
- C Radial drilling machine
- D Sensitive bench drilling machine

36 Which type of screw threads are rounded at the crest and root?

- A B.A thread
- B B.S.F thread
- C B.S.W thread
- D ACME thread

37 What is the formula to calculate tap drill size?

- A Tap drill size = Major dia - (2 x depth)
- B Tap drill size = Major dia + (2 x depth)
- C Tap drill size = Major dia - (2 + depth)
- D Tap drill size = Major dia + (2 + depth)

38 Why ribs are provided in the angle plate?

- A Provide flatness
- B Prevent distortion
- C Provide squareness
- D Support the machined surface

Level 3

1 A new hacksaw blade after a few stroke, becomes loose because of?

- A Stretching of blade
- B Wrong pitch of the blade
- C Improper selection of saw sets
- D nut thread being worn out

2 Name the defect that causes the metal chips to clog between the teeth of file?

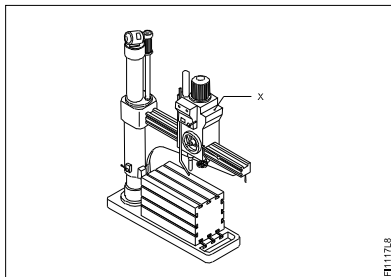
- A File bite
- B Pinning of file
- C Warping of file
- D Glazing of file

- 3 What will be the effect if the clearance angle of chisel is less than recommended angle while chipping?
- A Cutting edge cannot penetrate, chisel will slip
 - B Cutting edge digs in, cut will be deeper
 - C Cutting edge will break
 - D Cutting edge of chisel move freely on straight line
- 4 What happen if the clearance angle of chisel is too high?
- A Slipping of chisel
 - B Digging on the surface
 - C Cutting edge will break
 - D Heavy metal removal from the surface
- 5 What is the reason for scratches produced on field surface?
- A Pinning
 - B Glazing
 - C File bite
 - D Warping
- 6 What is the effect of improper method of diagonal filing?
- A Uneven surface finish
 - B Scratches on the surface
 - C Convexity on the surface
 - D Improper finish on surface
- 7 How to prevent the tool rubbing against the work surface in metal cutting process?
- A Decrease lip angle
 - B Increased rake angle
 - C Increase clearance angle
 - D Decrease tool wedge angle
- 8 Which activity causes excessive wear and chattering of drill bit while drilling?
- A Too fast feed rate
 - B Too slow feed rate
 - C More cutting speed
 - D Too slow spindle speed

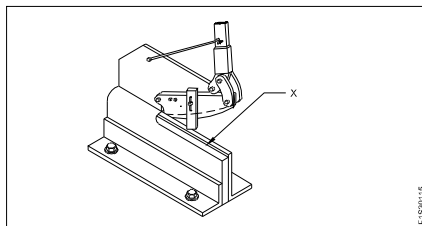
Module - 3 : Sheet Metal

Level 1

- 1 Which cutting fluid is used for drilling in cast iron?
 A Dry air jet B Soluble oil
 C Mineral oil D Vegetable oil
- 2 Name the part marked as 'x' in Radial drilling machine?

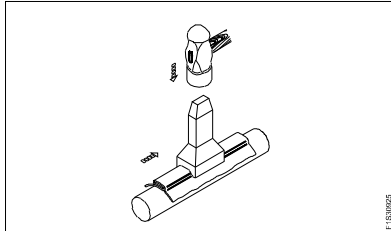


- A Base B Spindle
 C Radial arm D Spindle head
- 3 Which one is used to bring the plates closely together after inserting the rivet in the hole?
 A Drift B Dolly
 C Rivet set D Caulking tool
- 4 Name the part of lever shear marked as 'x'?



- A Base plate B Lever arm
 C Lower blade D Upper blade

5 Name the sheet metal operation?



- A Grooving
- B Notching
- C Bending
- D Folding

6 Name the zinc coated iron?

- A Black iron
- B Tinned iron
- C Stainless steel
- D Galvanised iron

7 Which sheet metal is highly resistant to corrosion and abrasion?

- A Copper
- B Black iron
- C Aluminium
- D Galvanised iron

8 What is the formula to calculate the size across flat to flat of regular hexagon?

- A $2a$
- B $\sqrt{2}a$
- C $\sqrt{3}a$
- D $3a$

9 What is the material of solder?

- A Welding rod
- B Synthetic element
- C Pure metal or alloy
- D Non metallic element

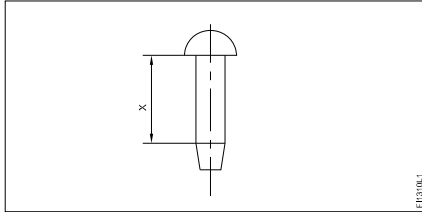
10 Which flux used for soldering steel?

- A Ammonium chloride
- B Zinc chloride
- C Resin
- D Paste

11 What is the material used to manufacture rivets?

- A Rubber
- B Synthetic
- C Hardened steel
- D Mild steel

12 Name the part marked as 'x' in a rivet?



- A Tail
- B Body
- C Head
- D Diameter

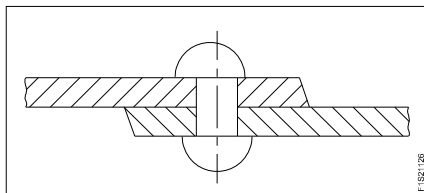
13 Which rivet is used in heavy structural work?

- A Pan head rivet
- B Snap head rivet
- C Counter sunk rivet
- D Conical head rivet

14 What is the name of tool is used to support the snap head rivet?

- A Dolly
- B Drift
- C Rivet set
- D Rivet snap

15 Name the riveting defect shown?

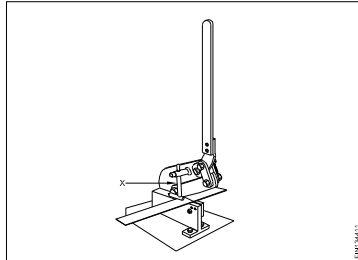


- A Improper joining of plates
- B Burrs between plates
- C Rivet head not centred with the shank
- D Body of the rivet not perpendicular to the plate

16 Which tool used in sheet metal work to scribe a circle or arc with a large diameter?

- A Spring compass
- B Trammel
- C Wing compass
- D Ordinary compass

17 What is the name of part marked 'X'?



- A Body
- B Clamp
- C Upper blade
- D Lower blade

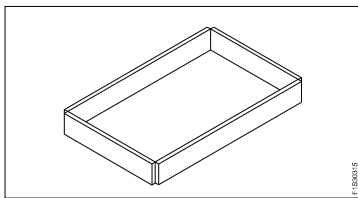
18 Which rivets are used in light assembly work?

- A Pan head rivet
- B Snap head rivet
- C Counter sunk rivet
- D Conical head rivet

19 What is the tool used to form the other end of rivet head?

- A Dolly
- B Drift
- C Rivet set
- D Rivet snap

20 What is the name of the notch in sheet metal work?



- A 'V' notch
- B Slant notch
- C Square notch
- D Straight notch

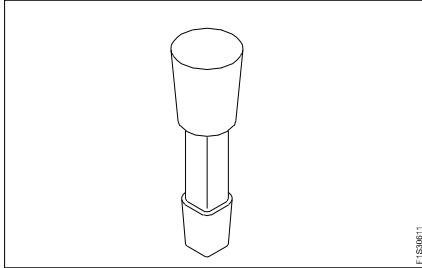
21 What type of mallet used for hollowing panel beating?

- A Brass mallets
- B Rubber mallets
- C Wooden mallets
- D Bossing mallets

22 Which stake is used to form an arc of a circle bevelled along one side?

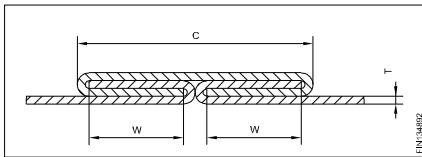
- A Funnel stake
- B Hatchet stake
- C Half moon stake
- D Beak or bick iron

23 What is the name of supporting tool in sheet metal work?



- A Hatchet stake
- B Funnel stake
- C Half moon stake
- D Round bottom stake

24 What is the name of the joint in sheet metal?

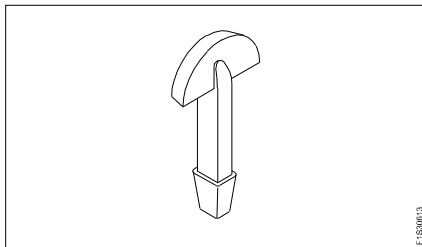


- A Grooved joint
- B Pane down joint
- C Knocked up joint
- D Double grooved joint

25 What is the maximum cutting capacity of snip?

- A 1.2 mm thickness
- B 2.0 mm thickness
- C 2.5 mm thickness
- D 3.0 mm thickness

26 What is the name of supporting tool in sheet metal work?



- A Funnel stake
- B Hatchet stake
- C Half moon stake
- D Round bottom stake

27 Which riveting tool is used to form the final shape of rivet?

- A Drift
- B Dolly
- C Rivet set
- D Rivet snap

28 Name the tool used to make fluid tight joint in riveting?

- A Drift
- B Rivet snap
- C Fullering tool
- D Caulking tool

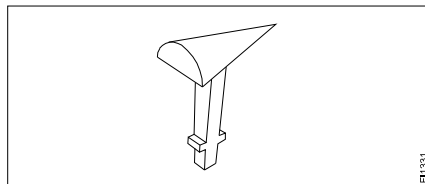
29 What is the name of tool used to cut thicker sheets?

- A Bend snips
- B Lever shears
- C Straight snips
- D Circle cutting machine

30 Which stake is used for making sharp bends?

- A Funnel stake
- B Hatchet stake
- C Half moon stake
- D Beak or bick iron

31 What is the name of stake?



- A Horse
- B Bick iron
- C Funnel stake
- D Creasing iron

32 Which flux is used for soldering tin sheets?

- A Resin
- B Paste
- C Zinc chloride
- D Ammonium chloride

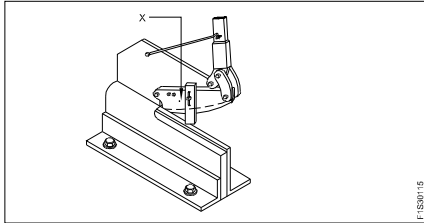
33 What is the seam used in sheet metal joint for roofing and panelling?

- A Lap seam
- B Double seam
- C Grooved seam
- D Double grooved seam

34 What is rivet interference?

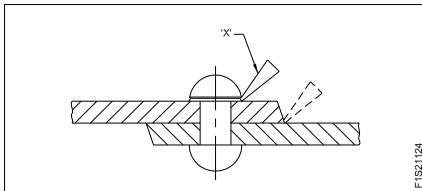
- A Thickness of sheet
- B Diameter of the rivet
- C Length to form the head
- D Total rivet length required for riveting

35 What is the part marked as 'x' in the hand shearing machine?



- A Clamp
- B Lever arm
- C Lower blade
- D Upper blade

36 What is the tool marked as 'x' in riveting?



- A Dolly
- B Rivet set
- C Fullering tool
- D Caulking tool

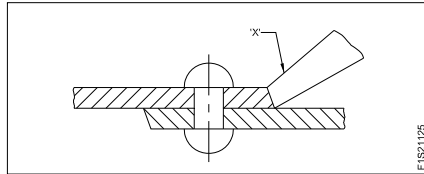
37 Which tool is used to make fluid-tight joint by pressing the riveted edge plate?

- A Dolly
- B Drift
- C Caulking tool
- D Fullering tool

38 Which metal is very soft and heavy in sheet metal work?

- A Lead
- B Black iron
- C Aluminium
- D Copper sheet

39 Name the tool marked as 'X' in riveting?



- A Drift
- B Rivet snap
- C Caulking tool
- D Fullering tool

40 Which hammer is suitable for riveting?

- A Plastic hammer
- B Ball pein hammer
- C Cross pein hammer
- D Straight pein hammer

41 Which notch is cut at an angle of 45° to the corner of the sheet metal?

- A Wire notch
- B Slant notch
- C Square notch
- D Straight notch

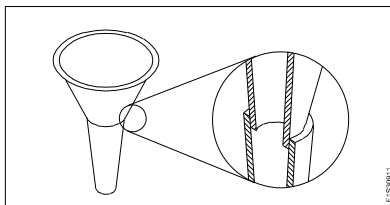
42 Name the joint made by fastening two edges of sheet metal together?

- A Hem
- B Seam
- C Notch
- D Groove

43 What is the flux used for soldering in the form of powder and evaporates while heating?

- A Resin
- B Zinc chloride
- C Hydrochloric acid
- D Ammonium chloride

44 Name the type of seam?



- A Lap seam
- B Double seam
- C Grooved seam
- D Double grooved seam

45 Which rivet is used to avoid the projection of rivet head?

- A Pan head rivet
- B Snap head rivet
- C Conical head rivet
- D Counter sunk head rivet

Level 2

1 Select the spindle speed (rpm) for H.S.S drill dia 24 mm and cutting speed (V) = 30 m/min to drill mild steel?

- A 275 rpm
- B 300 rpm
- C 400 rpm
- D 450 rpm

2 What is the use of bent snips?

- A Groove cut
- B Zigzag cut
- C Straight cut
- D Circular cut

3 Calculate the weight of steel plate having length of 2000 mm, width of 500 mm, thickness of 4 mm and density of 7.85 g/cm³?

- A 21.4 Kg
- B 31.4 Kg
- C 41.4 Kg
- D 50.4 Kg

4 What is the use of stakes in sheet metal work?

- A Rest of work
- B Supporting piece
- C Sharpening
- D Folding shapes

5 What is the purpose of groover?

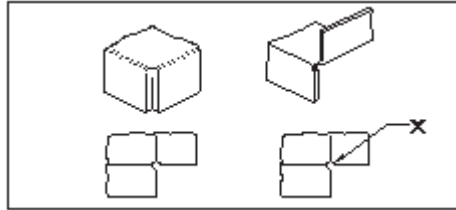
- A Releasing of seam
- B Compress the seam
- C Closing and locking of seam
- D Stress relieving during seam operation

6 Which is the operation of covering area of the metal with molten solder?

- A Pickling
- B Swaging
- C Seaming
- D Tinning

- 7 What is the use of groover in sheet metal work?
- A Releasing of seam B Compress the seam
 C Closing of seam
 D Stress relieving during seam operation

- 8 What is the purpose of hole marked as 'x'?



- A Arrest the crack B Facilitate easy bending
 C Make good appearance D Allow clearance between the ends
- 9 How the distance of first rivet is determined from the side edge?
- A 3 x dia of rivet B 2 x dia of rivet
 C 2.5 x dia of rivet D 3.5 x dia of rivet
- 10 What is the advantage of stakes in sheet metal work?
- A Sharpening B Supporting
 C Rest of workpiece D Protect the tool from damage
- 11 Why allowance is required while making various types of hems and seams?
- A To make good appearance B To prevent damage to the edges
 C To prevent over lapping at the seam
 D Maintain correct size and improve the strength
- 12 Which sheet metal is easiest to joint and solder?
- A Tinned plate B Lead
 C Galvanised iron D Stainless sheet
- 13 Which sheet metal withstand contact with water and exposure to weather?
- A Black iron B Copper sheet
 C Stainless sheet D Galvanised iron

14 What is the purpose of drift in riveting operation?

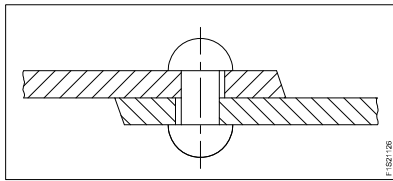
- A Position the rivet
- B Make metal to metal joint
- C Align the holes to be riveted
- D Prevent damage to rivet head

Level 3

1 Why burr form on the underside of the sheet metal while shearing?

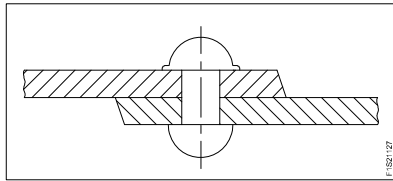
- A No clearance
- B Hardened metal
- C Increase in force
- D Excessive clearance

2 What is the fault in riveting?



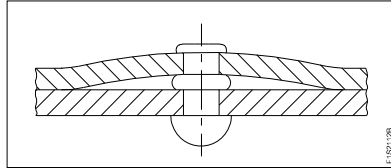
- A Burrs between plates
- B Rivet head not centered
- C Too much allowance given
- D Holes on the plate are not in line

3 What is the name of riveting defect?



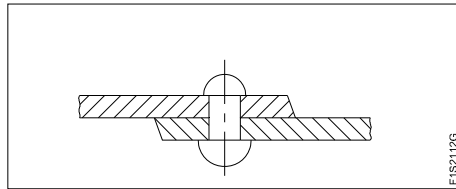
- A Too little allowance on shank
- B Too much allowance on shank
- C Rivet head not centered with shank
- D Head of rivet not perpendicular to shank

4 What is the reason for faulty rivetting?



- A Burrs between plates
- B Too little allowance given
- C Improper joining of plates
- D Too much allowance given

5 What is the fault in riveting?



- A Too little allowance
- B Burrs between the plates
- C Holes on the plate not in line
- D Rivet body not perpendicular

6 What is the minimum distance between the rivets to avoid buckling?

- A 2 D
- B 2.5 D
- C 3 D
- D 3.5 D

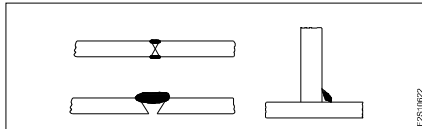
Module - 4 : Welding

Level 1

1 Which type of filler rod is used in gas welding of stainless steel?

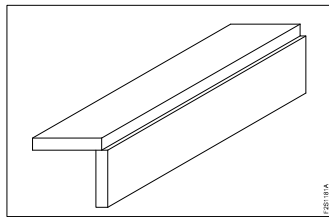
- A Pure aluminium B Copper silver alloy
C Columbium stainless steel D Copper coated mild steel

2 Name the gas welding defect?



- A Porosity B Lack of fusion
C Oxidised weld D Incomplete penetration

3 Name the joint in the arc welding?



- A Flush corner joint B Single fillet lap joint
C Half open corner joint D Full open corner joint

4 Which arc welding machine can be used anywhere in the field work even away from electric lines?

- A Rectifier set B Motor generator set
C Engine generator set D AC welding transformer

5 Which arc welding machine provides better heat distribution in the electrode and job?

- A Rectifier set B Motor generator set
C Welding transformer D Engine generator set

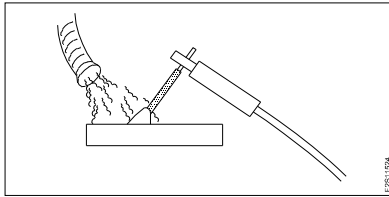
6 What is the colour painted on the acetylene gas cylinders?

- A Black
- B Green
- C Blue
- D Maroon

7 What is the angle to be maintained in the blow pipe and filler rod in the left ward welding technique?

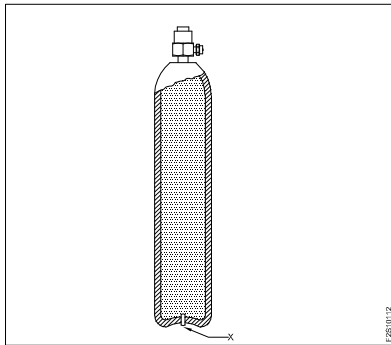
- A 60° & 30°
- B 50° & 40°
- C 30° & 50°
- D 60° & 40°

8 Name the safety operation carried out in welding plant shown in the figure?



- A Compressor used to force out fuses
- B Cooling the surface to clear gases
- C Water forced to clean the surface
- D Exhaust duct capture fuses and gases

9 Identify the part marked as 'x'?



- A Safety plug
- B Steel bottle
- C Valve spindle
- D Dissolved acetylene

10 What is the name of distortion occurs in the weld direction?

- A Angular distortion
- B Bending distortion
- C Longitudinal distortion
- D Transverse distortion

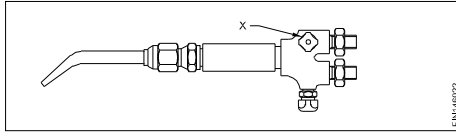
11 What is the name of the metal edge in an angle during welding and cutting operations?

- A Kerf
- B Drag
- C Bevel
- D Gouging

12 What is the oxygen cylinder colour?

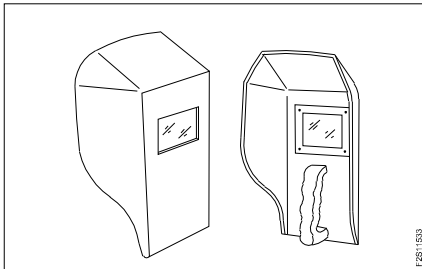
- A Red
- B Blue
- C Black
- D Maroon

13 What is the name of the part marked as 'X'?



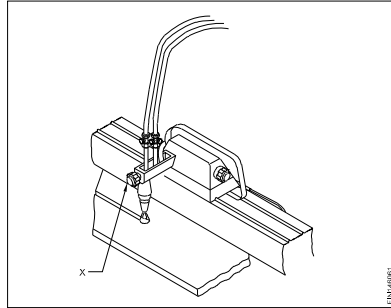
- A Handle
- B Mixing chamber
- C Oxygen control value
- D Acetylene control value

14 What is the name of PPE?



- A Portable screen
- B Chipping goggles
- C Welding hand screen
- D Welding helmet screen

15 What is the name of the part marked as 'X'?



- A Preheat control valve
- B Oxygen control valve
- C Horizontal adjustment
- D Vertical adjustment

16 What is the storing capacity of oxygen cylinder?

- A 7 m³
- B 10 m³
- C 14 m³
- D 15 m³

17 What is the equipment used to protect the body from flying spark during gas cutting?

- A Leather cap
- B Leather apron
- C Leather shoes
- D Cutting goggles

Level 2

1 What is the function of AC welding transformer?

- A It converts to low voltage high current ampere
- B It converts to high voltage and low current ampere
- C It converts to low voltage and low current ampere
- D It converts to high voltage and high current ampere

2 What is the disadvantage of AC welding transformer?

- A More initial cost
- B Not free from arc blow
- C More maintenance cost
- D Not suitable for welding non ferrous metal

- 3 Which factor determine the current setting during welding?
- | | |
|-----------------------|-------------------------|
| A Types of joint | B Position of weld |
| C Length of electrode | D Diameter of electrode |
- 4 What is the OCV for welding in step-down transformer which reduces the main supply voltage (220 or 440 volts)?
- | | |
|-------------------|-------------------|
| A 40 and 100 volt | B 50 and 100 volt |
| C 30 and 20 volt | D 20 and 25 volt |
- 5 Which is the welding machine designed to supply both A.C and D.C current for welding ferrous and non-ferrous metals using all types of electrode?
- | | |
|-----------------------|------------------------|
| A Rectifier set | B Transformer set |
| C Motor generator set | D Engine generator set |
- 6 Why the cylinder keys are not removed from the cylinder while welding?
- | | |
|--------------------------------|------------------------------------|
| A To prevent gas leak | B To adjust the gas supply |
| C To open and close frequently | D To close quickly in case of fire |
- 7 Which process blow out the cylinder valve socket before connecting the regulator?
- | | |
|--------------|--------------------|
| A Cracking | B Back fire |
| C Flash back | D Pressure testing |
- 8 What is the purpose of cellulosic electrode in arc welding process?
- | |
|--|
| A Very easy to remove the deposited slag |
| B Used for high strength steel |
| C It is used for low carbon steel |
| D It is suitable for all position |
- 9 How to extinguish the flame after use in gas welding?
- | |
|--|
| A Shut off oxygen and dip blow pipe in water |
| B Shut off oxygen and acetylene valve at a time |
| C Shut off oxygen valve first next acetylene valve |
| D Shut off acetylene valve first next oxygen valve |

10 Why humming sound effects during arc welding?

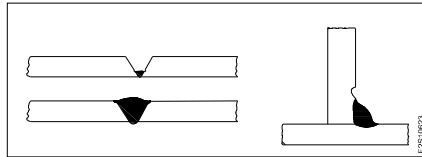
- A Long arc length
- B Speedy welding
- C Short arc welding
- D Normal arc length

Level 3

1 What will cause if the nozzle touches the molten pool?

- A Spark
- B Smoke
- C Back fire
- D Flash back

2 Identify the welding defect shown in figure?



- A Under cut
- B Cracking
- C Lack of fusion
- D Incomplete penetration

3 Which internal defect welding is invisible to naked eye?

- A Spatter
- B Porosity
- C Undercut
- D Stray arc

Module - 1 : Drilling

Level 1

1 What is the name of the angle marked 'x' in the reamer?

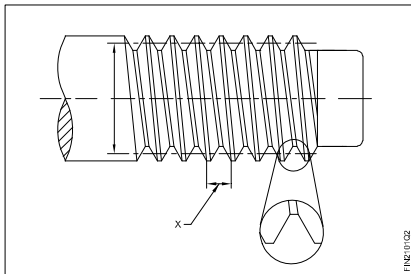


- | | |
|---------------|-------------------|
| A Rake angle | B Flute angle |
| C Helix angle | D Clearance angle |

2 What is the angle of countersinking for riveting?

- | | |
|-------|--------|
| A 75° | B 80° |
| C 90° | D 120° |

3 What is the name of the element marked 'x' of the thread?



- | | |
|---------|---------|
| A Root | B Lead |
| C Pitch | D Flank |

4 What 'A' represents in grinding wheel specification 32A46H8V ?

- | | |
|----------------|--------------------|
| A Grade | B Grain size |
| C Type of bond | D Type of abrasive |

5 What is the product obtained from blast furnace?

- | | |
|----------------|------------------|
| A Pig iron | B Cast iron |
| C Wrought iron | D Malleable iron |

6 Which metal is used to manufacture magnets, ball bearing and cutting tool?

- A Cobalt
- B Cadmium
- C Vanadium
- D Molybdenum

7 How much copper contains in pyrites ore?

- A 15%
- B 32%
- C 50%
- D 45%

8 Which metal is resistant to many types of acids?

- A Tin
- B Nickel
- C Lead
- D Chromium

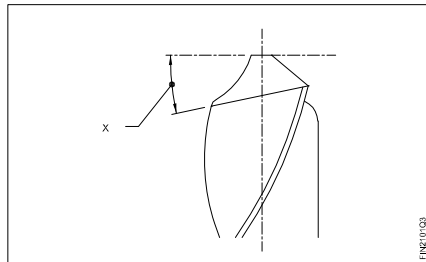
9 Which method is suitable to remove the broken stud very near to the surface?

- A Ezy out method
- B Making drill hole
- C Prick punch method
- D Using square taper punch

10 What is the angle of counter sink head screws?

- A 60°
- B 90°
- C 105°
- D 120°

11 What is the name of the angle in the drill bit marked 'x'?



- A Chisel angle
- B Rake angle
- C Point angle
- D Lip clearance angle

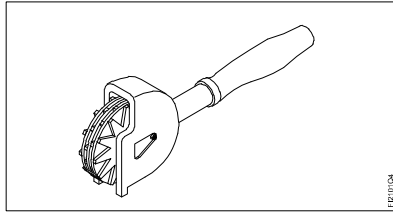
12 Which angle is determined by the helix angle in drill bit?

- A Point angle
- B Rake angle
- C Chisel angle
- D Clearance angle

13 Which reamer will have a long taper lead?

- A Hand reamer
- B Socket reamer
- C Machine reamer
- D Helical fluted reamer

14 What is the name of the tool?

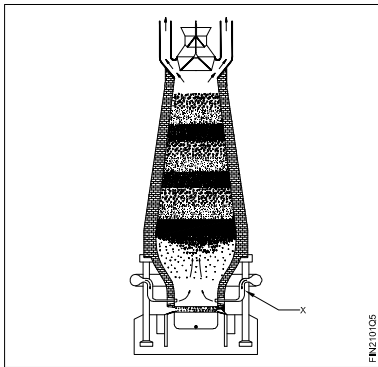


- A Stone dresser
- B Diamond dresser
- C Star wheel dresser
- D Abrasive stick dresser

15 Which indicates the strength of bond in grinding wheel?

- A Grid
- B Grade
- C Structure
- D Grain size

16 What is the name of the part marked 'x' in blast furnace?

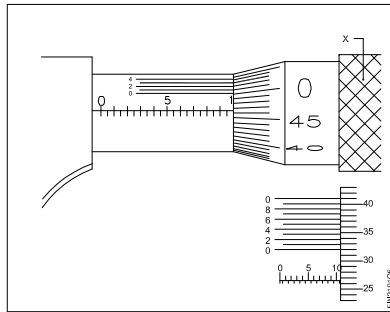


- A Tuyeres
- B Molten slag
- C Molten iron
- D Tapping hole

17 What is the range of carbon content in cast iron?

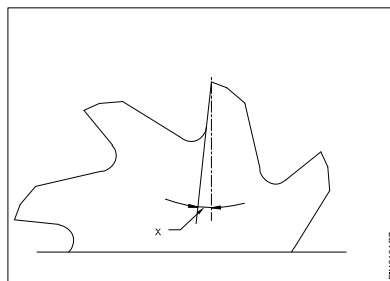
- A 2 to 4%
- B 5 to 9%
- C 6 to 9%
- D 10 to 12%

18 What is the name of the part marked 'x' in vernier micrometer?



- A Anvil
- B Barrel
- C Thimble
- D Ratchet stop

19 What is the name of part marked as 'X'?

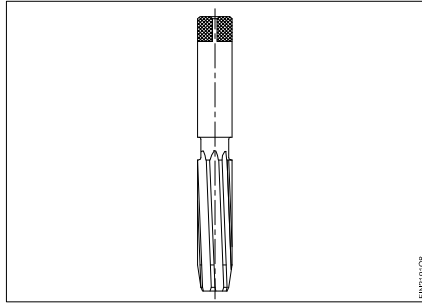


- A Heel
- B Cutting edge
- C Position rake angle
- D Negative rake angle

20 Which reamer is used for reaming internal Metric morse tapered holes?

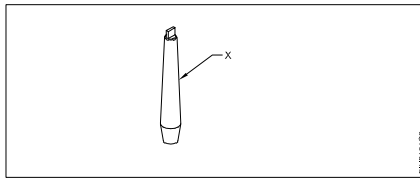
- A Helical fluted reamer
- B Hand reamer with pilot
- C Taper pin hand reamer
- D Socket reamer with parallel shank

21 Name the type of the reamer?



- A Hand reamer
- B Helical reamer
- C Machine reamer
- D Taper pin reamer

22 What is the name of part marked as 'X'?



- A Arbor
- B Drill chuck
- C Drill bit
- D Chuck key

23 Which reamer has a long taper lead?

- A Socket reamer
- B Hand reamer
- C Machine reamer
- D Helical fluted reamer

24 Which cast iron has the ability to reduce vibration and tool chattering in machine tools?

- A Grey cast iron
- B White cast iron
- C Nodular cast iron
- D Malleable cast iron

25 Which furnace is used to produce wrought iron?

- A Blast furnace
- B Cupola furnace
- C Puddling furnace
- D Electric arc furnace

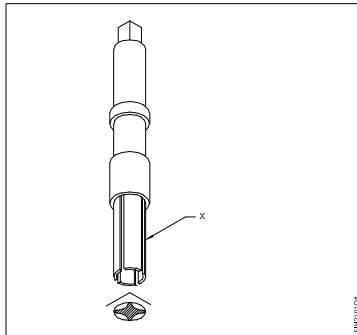
26 Which ore is used to extract zinc?

- A Bauxite
- B Galena
- C Calamine
- D Cassiterite

27 Which tool is used to check the internal clearance of the bearing?

- A Steel rule
- B Feeler gauge
- C Depth gauge
- D Vernier caliper

28 What is the name of part marked as 'X'?

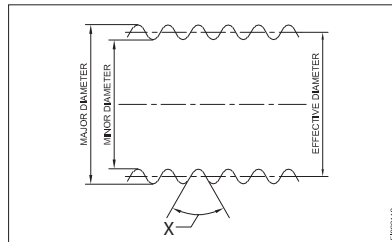


- A Collar
- B Square head
- C Fingers
- D Body

29 What is the angle of ACME thread?

- A 66°
- B 55°
- C 29°
- D 45°

30 What is the name of elements of screw marked as 'X'?

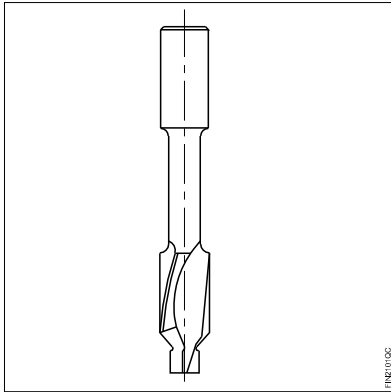


- A Root
- B Pitch
- C Crest
- D Thread angle

31 What is the helix angle of general purpose drill?

- A 59°
- B 118°
- C 27.5°
- D 8° to 12°

32 What is the name of the tool?

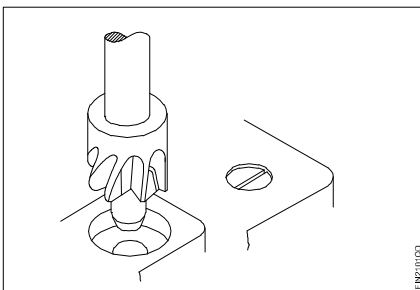


- A Pilot drill
- B Counter sink
- C Drill with pilot
- D Countersink with pilot

33 Which part of a reamer is designed for the removal of chips?

- A Face
- B Flute
- C Heel
- D Cutting edge

34 What is the name of operation?



- A Drilling
- B Spot facing
- C Countersinking
- D Counter boring

35 What is the term, the top surface joining the two sides of a thread?

- A Root
- B Crest
- C Flank
- D Pitch

36 What 'V' denotes in grinding wheel specification 32A46H8V?

- A Bond
- B Grade
- C Abrasive
- D Grain size

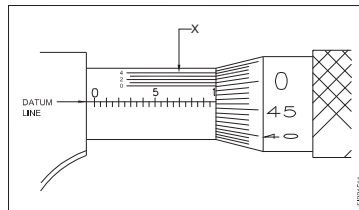
37 What type of abrasive wheel is used for grinding die steel?

- A Silicon carbide
- B Green silicon carbide
- C White aluminium oxide
- D Brown aluminium oxide

38 Which term indicates the amount of bond present between the individual abrasive grains?

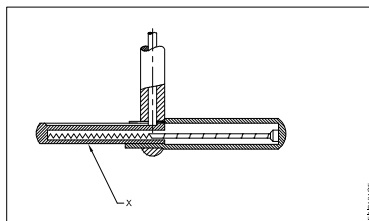
- A Grain
- B Grade
- C Abrasive
- D Structure

39 What is the name of the part marked as 'X' in vernier micrometer?



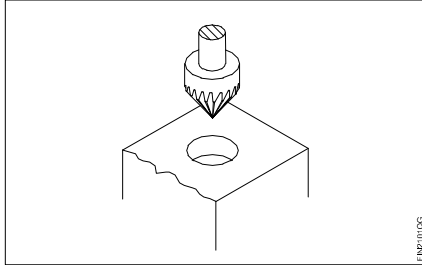
- A Barrel
- B Thimble
- C Datum line
- D Vernier division

40 What is the name of the part marked as 'X' of telescopic gauge?



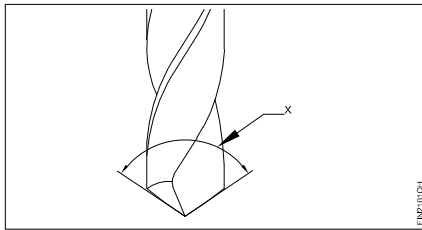
- A Spring
- B Handle
- C Fixed leg
- D Telescoping leg

41 What is the name of the tool?



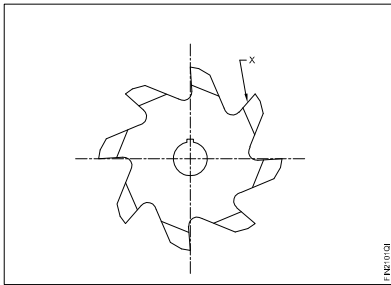
- A Reamer
- B Spot facing tool
- C Countersink tool
- D Counter boring tool

42 What is the name of the angle marked as 'X' in drill bit ?



- A Helix angle
- B Lead angle
- C Point angle
- D Chisel edge angle

43 What is the name of element marked as 'X' in reamer?



- A Face
- B Heel
- C Flute
- D Cutting edge

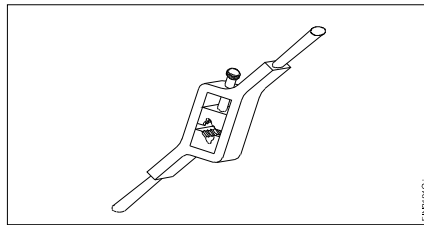
44 Which angle determines the rake angle of drills?

- A Helix angle
- B Core angle
- C Point angle
- D Chisel edge angle

45 What is the angle of countersink tool used on holes to be threaded?

- A 75°
- B 80°
- C 90°
- D 120°

46 What is the name of the die?



- A Split die
- B Half die
- C Solid die
- D Adjustable screw plate die

47 Which type of thread, the crest and roots are rounded to form a semi circle?

- A Acme thread
- B Square thread
- C Knuckle thread
- D Trapezoidal thread

48 What '5' denotes in grinding wheel specification 41A46H5U8?

- A Bond
- B Abrasive
- C Structure
- D Grain size

49 Which type of bonded wheel is used in foundries for dressing castings?

- A Silicate bond
- B Shellac bond
- C Rubber bond
- D Resinoid bond

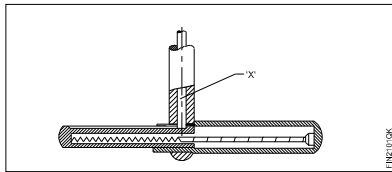
50 What type abrasive wheel is used for grinding cemented carbides?

- A Green silicon carbide
- B Grey aluminium oxide
- C White aluminium oxide
- D Brown aluminium oxide

51 What is the value of one vernier division of a vernier micrometer?

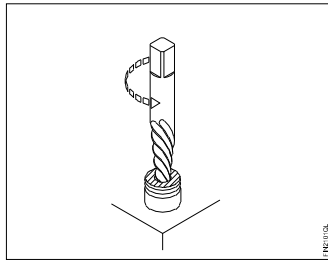
- A 0.01 mm
- B 0.02 mm
- C 0.009 mm
- D 0.002 mm

52 What is the name of part marked as 'X' in telescopic gauge?



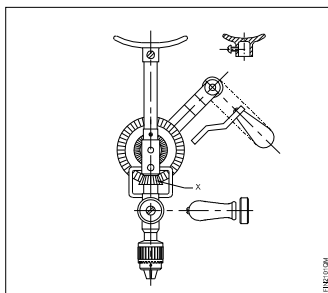
- A Handle
- B Fixed leg
- C Plunger lock
- D Telescopic leg

53 What is the method of removing broken stud?



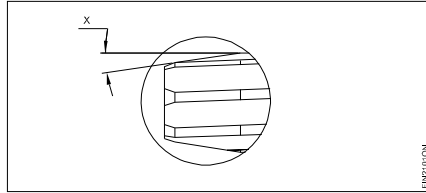
- A Ezy-out
- B Prick punch
- C Making drill hole
- D Using square taper punch

54 What is the name of the part marked as 'X'?



- A Breast plate
- B Bevel pinion
- C Frame work
- D Locking screw

55 What is the name of part marked as 'X' in hand reamer?

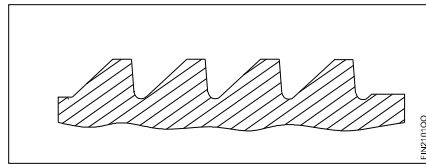


- A Taper lead
- B Bevel lead
- C Circular lead
- D Taper lead angle

56 What is the counter sink angle of chamfering in the end of drilled hole for threading?

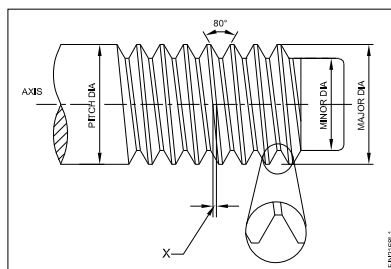
- A 75°
- B 80°
- C 90°
- D 120°

57 What is the name of thread?



- A Vee thread
- B Buttress thread
- C Square thread
- D Saw - tooth thread

58 What is the name of part marked 'X'?



- A Root
- B Pitch
- C Crest
- D Helix angle

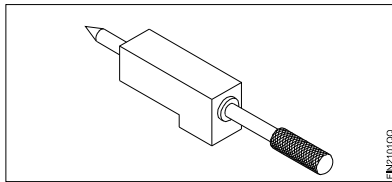
59 What is the included angle of metric 'V' threads?

- A 45°
- B 29°
- C 60°
- D 47½°

60 What '46' represent in standard marking system of grinding wheel (32A46H8V)?

- A Grade
- B Grain size
- C Type of bond
- D Type of abrasive

61 What is the tool used in grinding operation?



- A Honing tool
- B Abrasive stick
- C Diamond dressers
- D Star wheel dressers

62 What is the colour of aluminium metal?

- A Dull white
- B White
- C Bright white
- D Bluish grey colour

63 What 'H' denotes in the specifications of grinding wheel 32A46H8V?

- A Grain size
- B Type of abrasive
- C Grade
- D Structure

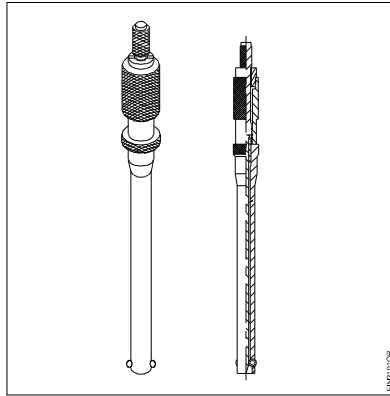
64 What is produced from blast furnance ?

- A Pig iron
- B Cast iron
- C Wrought iron
- D Malleable iron

65 What is the minimum dimension can measure with telescopic gauge?

- A 8.0 mm
- B 12.7 mm
- C 19.0 mm
- D 150 mm

66 Which gauge is used to measure below 8 mm dimension?



- A Telescopic gauge B Small hole gauge
C Depth micrometer D Inside micrometer

Level 2

1 What is the name of the process of finishing the drilled hole?

- A Reaming B Spot facing
C Counter boring D Counter sinking

2 What is the purpose of clearance angle in twist drill?

- A Prevent rough holes
B Prevent over size holes
C Prevent unequal angle of cutting edges
D Prevent friction of drill behind the cutting edges

3 What is the name of the operation to enlarge the hole for given depth?

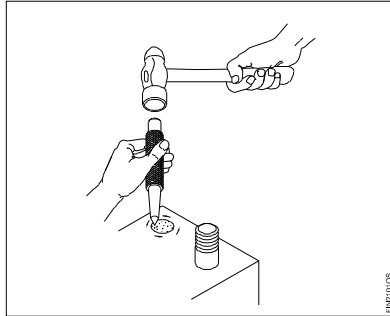
- A Reaming B Spot facing
C Counter boring D Counter sinking

4 What is to be done after mounting the new grinding wheel to run concentric?

- A Truing B Glazing
C Loading D Dressing

- 5 What is the use of telescopic gauge?
- A Measure depth B Measure external dimension
 C Measure angular dimension D Measure size of holes, slots
- 6 What is the use of reamer?
- A Drill a hole
 B Enlarging a hole
 C Threading a hole
 D Finishing to correct size of the drilled hole
- 7 What is the purpose of type "N" twist drills?
- A Used for hard material
 B Used for brittle material
 C Used for soft and tough material
 D Used for normal low carbon steel
- 8 What is the function of pilot in the hand reamer with pilot?
- A Keep size of hole accurate
 B Removes the burr from the hole
 C Provide smooth functioning of reamer
 D Keep reamer concentric with hole to be reamed
- 9 Which decides the point angle of drill?
- A Drill material B Job material
 C Cutting speed D Size of the drill
- 10 What is the drill size for reaming a 10 mm hole, if under size is 0.2mm and over size is 0.05mm?
- A 8.5 mm B 9.75 mm
 C 10.00 mm D 10.25 mm

11 What is the method of removing the broken stud?



- A Ezy- out method
- B Prick punch method
- C Making drill hole method
- D Using square taper punch method

12 What is the operation of beveling the end of a drilled hole?

- A Reaming
- B Spot facing
- C Counter boring
- D Counter sinking

13 Why centre screw is provided in the die stock?

- A To tighten the die
- B To adjust the depth of cut
- C To adjust the dia of internal thread
- D To adjust the dia of external thread

14 Which term describes the axial movement of screw in one complete turn?

- A Lead
- B Flank
- C Pitch
- D Depth

15 How the size of drill bit is measured?

- A Between flutes
- B Between the lands
- C Between web
- D Neck diameter

16 What is the purpose of type 'S' twist drill?

- A Used for hard material
- B Used for high carbon steel
- C Used for soft and tough material
- D Used for normal low carbon steel

17 Determine the drill size for finishing $\phi 19$ mm reaming hole (as per table under size 0.2 & over size 0.05 mm)?

- A 18.75 mm
- B 19.00 mm
- C 19.25 mm
- D 19.05 mm

18 What is the drill size for $\phi 15$ mm reaming hole?

- A 14.75 mm
- B 14.50 mm
- C 15.25 mm
- D 14.65 mm

19 What is the name of the operation producing flat seat on drilled hole?

- A Drilling
- B Spot facing
- C Counter sinking
- D Counter boring

20 What is the purpose of flute in drill?

- A To drive out the chips
- B To reduce the weight
- C To reduce the cost
- D To increase the speed

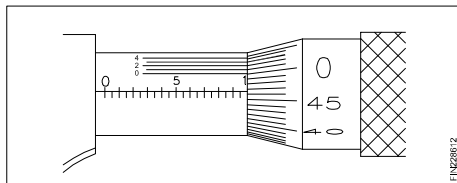
21 What is the formula to calculate the blank size of external thread (where p=pitch and d=depth)?

- A $D = d - p/10$
- B $D = d + p/10$
- C $D = d \times p/10$
- D $D = d \div p/10$

22 What is the size of drilled hole for reaming $\phi 10$ mm?

- A 8.5 mm
- B 9.75 mm
- C 10.00 mm
- D 10.25 mm

23 Calculate the reading of vernier micrometer?



- A 9.923 mm
- B 9.963 mm
- C 9.563 mm
- D 9.763 mm

24 Which cast iron has the ability to minimize tool chatter in machine tools?

- A Grey cast iron
- B White cast iron
- C Nodular cast iron
- D Malleable cast iron

25 Why lime stone serves as flux in the blast furnace?

- A To form molten slag
- B To supply the oxygen
- C To burn the carbon in coke
- D To increase the melting point of ore

26 Which micrometer having provision of interchangeable anvils?

- A Depth micrometer
- B Inside micrometer
- C Outside micrometer
- D Screw thread micrometer

27 Which factor determine the selection of wire in screw thread micrometer?

- A Thread angle
- B Type of thread and pitch
- C Root and crest
- D Major diameter

28 What is measured with telescopic gauge?

- A Depth
- B External dimension
- C Angular dimension
- D Size of holes, slots and recesses

Level 3

1 Why hand reamers have uneven spacing of teeth?

- A Reduce chattering
- B Remove more metals
- C Increase the efficiency
- D Increase the life of the tool

2 What is the reason for over heated drill while drilling?

- A Drill held not correctly
- B Work is not rigidly held
- C Clearance angle is incorrect
- D Flutes are clogged with chips

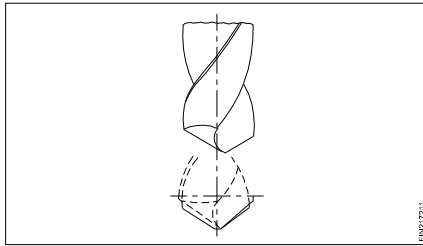
3 What will happen if the clearance angle of drill is more?

- A Cutting edge will be blunt
- B Cutting edge will not be sharp
- C Cutting edge will become weak
- D Cutting edge will not cut material

4 What will happen if the spindle running out of the centre while drilling?

- A Drill will break
- B Drills are over heated
- C Drill make rough hole
- D Over sized holes are made

- 5 What is to be done after dressing the grinding wheel to run concentric?
- A Truing B Glazing
C Loading D Dressing
- 6 What is the name of the defect, if the surface of the grinding wheel develops smooth and shining appearance?
- A Glazing B Truing
C Loading D Dressing
- 7 Why agricultural equipment is made up of wrought iron?
- A Low cost B Heavy weight
C Wear resistant D Corrosion resistant
- 8 What is the effect if clearance angle is incorrect?
- A Over sized holes B Over heated drills
C Rough holes D Broken drill
- 9 What is the type of defect on drilled hole?



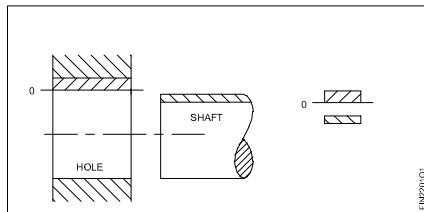
- A Rough holes B Over heated drill
C Oversized holes D Unequal flow of chips
- 10 What is the defect if pores of the grinding wheel get clogged?
- A Drilling B Glazing
C Loading D Dressing
- 11 What is the reason for rough holes in drilling?
- A Unequal point thinning B Drill point not in centre
C Clearance angle is incorrect D Drill cutting edges are not sharp
- 68 Fitter (NSQF Level - 5) QB : Sem-2 - Mod-1 : Drilling

- 12 What is the reason if the drilled hole is larger than the drill size?
- A Drill is not sharp
 - B Feed rate is too high
 - C Cutting speed is too high
 - D Unequal angle of cutting edge
- 13 Why drilled holes are over sized in drilling operation?
- A Drill is not sharp
 - B Unequal lip length
 - C Feed rate is too high
 - D Cooling is insufficient
- 14 Why grey cast iron is widely used for machine tools?
- A Rapid cooling
 - B Reduce vibration
 - C High tensile strength
 - D Very difficult to machining
- 15 What is the tap drill size for M20 x 1.5?
- A 18.5
 - B 20
 - C 19
 - D 17
- 16 What is the drill hole size for dia 16 mm reamer?
- A 15.75 mm
 - B 15.50 mm
 - C 14.65 mm
 - D 16 mm
- 17 Why drilled holes are over size than drill dia?
- A Feed ratio is more
 - B Cooling is in effective
 - C Insufficient clearance angle
 - D Unequal length of cutting edge
- 18 What is the advantage of centre screw in die stock?
- A To tighten the die
 - B To adjust the depth of cut
 - C To adjust the dia of internal thread
 - D To adjust the dia of external thread
- 19 Why precision instruments are made of invar steel?
- A Durability
 - B Cheaper in cost
 - C Surface finishing is fine
 - D Least coefficient of expansion
- 20 Why lime stone is added to the ore in the blast furnace?
- A To form molten slag
 - B To supply the oxygen
 - C To burnt the carbon in coke
 - D To increase the melting point of ore

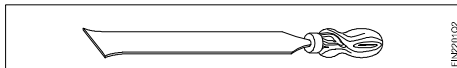
Module - 2 : Fitting Assembly

Level 1

1 What is the name of the fit?

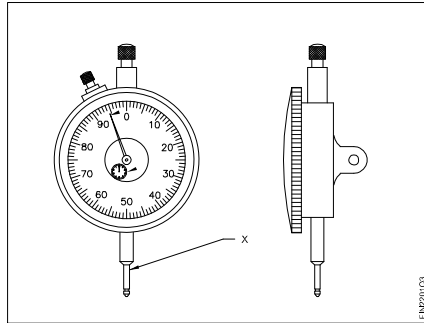


- A Transition fit
B Clearance fit
C Shrinkage fit
D Interference fit
- 2 What is the term of the algebraic difference between a size, to its corresponding basic size?
A Deviation
B Upper deviation
C Lower deviation
D Actual deviation
- 3 What is the least count of vernier micrometer?
A 0.01 mm
B 0.02 mm
C 0.001 mm
D 0.002 mm
- 4 What is name of the tool?



- A Flat scraper
B Hook scraper
C Half round scraper
D Three square scraper
- 5 Which instrument is used to measure the effective diameter of screw threads?
A Screw pitch gauge
B Outside micrometer
C Screw thread micrometer
D Screw thread caliper gauge

6 What is the name of part marked 'x' in dial gauge?



- A Anvil
- B Stem
- C Pointer
- D Plunger

7 What is the name of system if the size of the hole is kept constant, shaft is varied?

- A Bilateral system
- B Unilateral system
- C Hole basis system
- D Shaft basis system

8 Which device is used in conjunction with dial test indicator?

- A Chuck
- B Stand
- C Tool rest
- D Bench vice

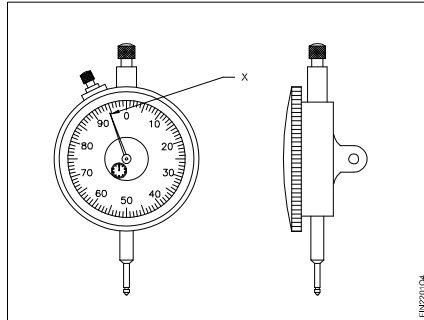
9 What is the difference between maximum limit of size and the minimum limit of size?

- A Tolerance
- B Basic size
- C Limits of size
- D Upper deviation

10 Which is grade of tolerance?

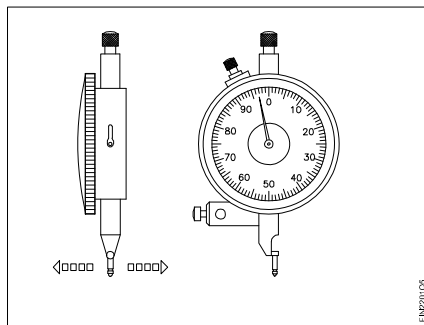
- A Bilateral tolerance
- B Unilateral tolerance
- C Fundamental tolerance
- D Fundamental deviation

11 What is the name of part marked 'X'?



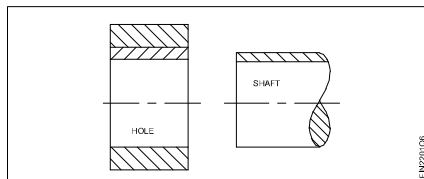
- A Anvil
- B Steam
- C Pointer
- D Plunger

12 What is the name of the instrument?



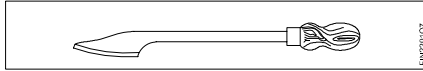
- A Dial vernier caliper
- B Vernier micrometer
- C Dial test indicator lever type
- D Dial test indicator plunger type

13 What is the name of fit?



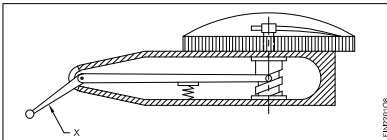
- A Transition fit
- B Shrinkage fit
- C Clearance fit
- D Interference fit

14 What is the name of the tool?



- A Flat scraper
- B Hook scraper
- C Half round scraper
- D Triangular scraper

15 What is the name of the part marked 'X' of lever type dial test indicator?

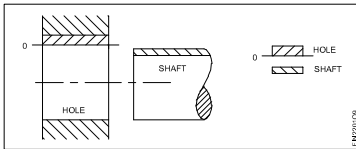


- A Pivot
- B Lever
- C Stylus
- D Scroll

16 What is the expression of 30H7/g6?

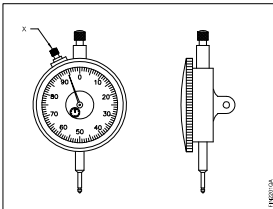
- A Fit
- B Limits
- C Deviation
- D Tolerance

17 What is the type of fit if the maximum size hole is larger than minimum size of shaft?



- A Shrinkage fit
- B Transition fit
- C Clearance fit
- D Interference fit

18 What is the name of the part marked 'X' in dial test indicator?

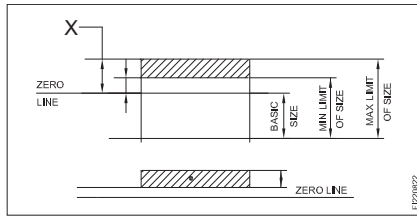


- A Stem
- B Pointer
- C Back plug
- D Bezel clamp

19 What is the angle of holding the scrapers for soft metal?

- A 30°
- B 60°
- C 40°
- D 20°

20 What is marked as 'X'?

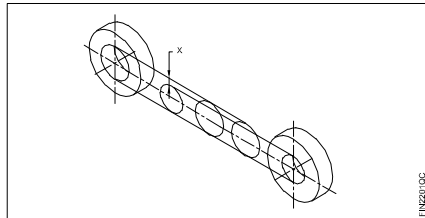


- A Minimum limit
- B Maximum limit
- C Lower deviation
- D Upper deviation

21 What is the upper deviation of the component size $20^{+0.008}_{-0.005}$

- A 0.005
- B 0.008
- C 19.995
- D 20.008

22 What is marked as 'X'?

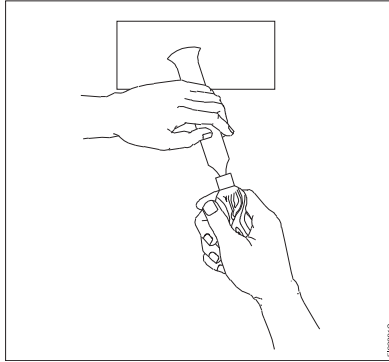


- A Limit
- B Tolerance zone
- C Lower deviation
- D Upper deviation

23 Which part indicates the reading of dial test indicator?

- A Stem
- B Anvil
- C Pointer
- D Plunger

24 What is the name of operation?

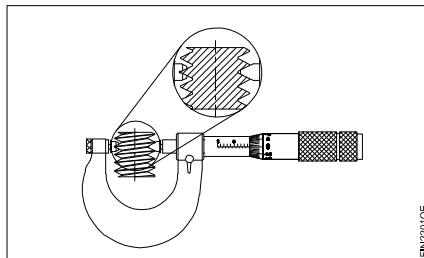


- A Filing
- B Drilling
- C Scraping
- D Chiseling

25 Which scraper is used to scrape the centre portion of large flat surface?

- A Flat scraper
- B Hook scraper
- C Triangle scraper
- D Bull-nose scraper

26 What is the name of the instrument?



- A Screw pitch gauge
- B Outside micrometer
- C Screw thread micrometer
- D Screw thread caliper gauge

27 Which instrument is used to magnify small variation in sizes by means of pointer on a graduated dial?

- A Dial test indicator
- B Inside micrometer
- C Dial vernier caliper
- D Vernier micrometer

- 2 What is the term used for the relationship exists between two mating parts?
- | | |
|-------------|-------------|
| A Fit | B Limit |
| C Tolerance | D Allowance |
- 3 Which part of vernier micrometer is marked with vernier scale graduation?
- | | |
|-----------|----------|
| A Anvil | B Frame |
| C Thimble | D Barrel |
- 4 What is the lower limit of size, if dimension is stated as $\varnothing 25^{+0.021}_{-0.000}$
- | | |
|------------|-------------|
| A 24.85 mm | B 24.75 mm |
| C 25.00 mm | D 25.021 mm |
- 5 What is the algebraic difference between the actual size and its corresponding basic size?
- | | |
|--------------------|-------------------|
| A Deviation | B Tolerance |
| C Actual deviation | D Upper deviation |
- 6 Which scraper is used to scrape small diameter holes and deburring edges of holes?
- | | |
|----------------------|---------------------|
| A Flat scraper | B Hook scraper |
| C Triangular scraper | D Bull-nose scraper |
- 7 Which scraper is used for scraping large bearing surface?
- | | |
|----------------------|---------------------|
| A Flat scraper | B Hook scraper |
| C Triangular scraper | D Bull-nose scraper |
- 8 What is the maximum limit of size if the basic size of the hole is 25 mm and the deviation is ± 0.2 mm?
- | | |
|------------|------------|
| A 25.2 mm | B 24.8 mm |
| C 25.02 mm | D 24.08 mm |
- 9 What is the maximum limit of size if size on drawing is $20^{+0.12}_{-0.21}$
- | | |
|-------------|-------------|
| A 19.988 mm | B 19.979 mm |
| C 20.012 mm | D 20.021 mm |

10 Which term indicates the difference between the maximum limit of size and minimum limit of size?

- A Deviation
- B Tolerance
- C Actual size
- D Upper deviation

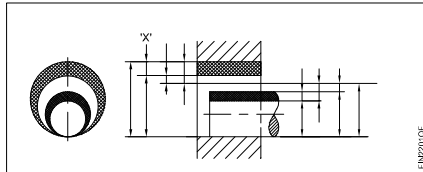
11 Which type of fit, the tolerance zone of hole is below the tolerance zone of shaft?

- A Transition fit
- B Clearance fit
- C Shrinkage fit
- D Interference fit

12 Which term indicates the algebraic difference between the actual size and its corresponding basic size?

- A Deviation
- B Actual deviation
- C Upper deviation
- D Lower deviation

13 What is marked as 'X' in hole basic system?



- A Tolerance
- B Maximum dia
- C Lower deviation
- D Upper deviation

14 What is the lower limit of size in dimension of $20^{+0.028}_{+0.007}$

- A 19.988 mm
- B 20.028 mm
- C 20.007 mm
- D 19.979 mm

15 What is the lower limit of size, if dimension is stated as $\phi 24^{+0.021}_{-0.000}$?

- A 24.85 mm
- B 24.75 mm
- C 24.000 mm
- D 25.021 mm

16 What is the extreme permissible sizes within which the operator is expected to make the component?

- A Basic size
- B Actual size
- C Nominal size
- D Limits of size

17 What is the size of the component by actual measurement after it is manufactured?

- A Limit size
- B Actual size
- C Maximum size
- D Minimum size

18 A dimension is stated as 25 ± 0.02 mm in a drawing. What is the tolerance?

- A +0.02 mm
- B -0.02 mm
- C 0.04 mm
- D 25.00 mm

19 How to identify high spots while scraping?

- A Prussian blue
- B White chalk
- C Copper sulphate
- D Cellulose lacquer

Level 3

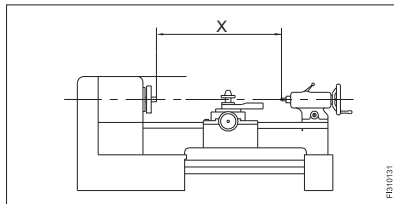
1 How chipped out scraper can be repaired?

- A Filing
- B Lapping
- C Chiselling
- D Grinding and honing

Module - 3 : Turning

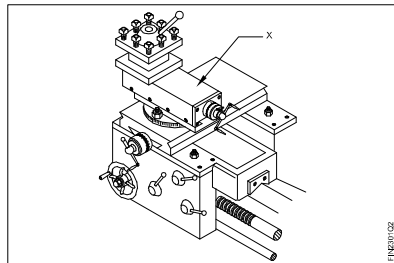
Level 1

1 What is the name of the lathe specification marked 'X'?



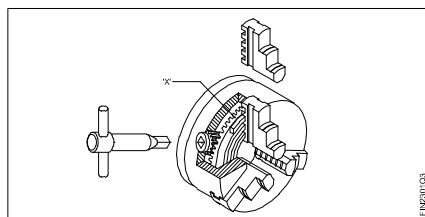
- A Length of the bed
- B Centre height of lathe
- C Length between centre
- D Diameter of work (Swing)

2 What is the name of the part marked 'X' in the lathe carriage?



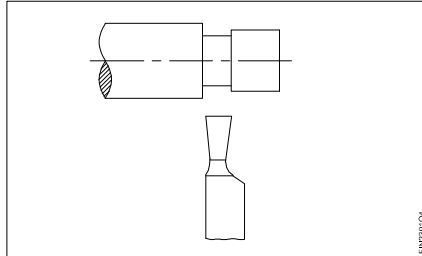
- A Tool post
- B Top slide
- C Cross slide
- D Saddle lock

3 What is the name of the part marked 'x'?



- A Body
- B Back plate
- C External jaw
- D Crown wheel

4 What is the name of operation?



- A Square shoulder
- B Filleted shoulder
- C Bevelled shoulder
- D Undercut shoulder

5 What type of cutting tool used in mass production?

- A Solid tools
- B Brazed tools
- C Throw away type tools
- D Inserted bits with holders

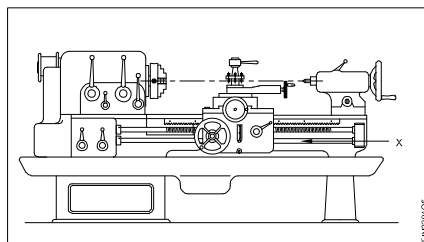
6 Which gauge is used to compare the profile of thread?

- A Plug gauge
- B Feeler gauge
- C Radius gauge
- D Screw pitch gauge

7 Which type of thread is used in screw jack?

- A Vee thread
- B Acme thread
- C Knuckle thread
- D Square thread

8 What is the name of the part marked 'X'?



- A Bed
- B Tail stock
- C Feed shaft
- D Lead screw

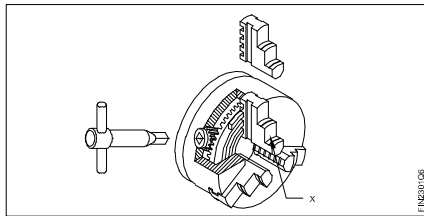
9 What is the maximum swiveling angle of the compound rest in the lathe machine?

- A 90°
- B 180°
- C 220°
- D 360°

10 Which part is mainly supporting the lengthy job in lathe machine?

- A Face plate
- B Steady rest
- C Dog carrier
- D Dead centre

11 What is the name of part marked as 'x' of three jaw chuck?



- A Body
- B Back plate
- C Internal jaw
- D External jaw

12 Which tool materials are manufactured by powder metallurgy technique?

- A Carbides
- B High speed steel
- C High carbon steel
- D Medium carbon steel

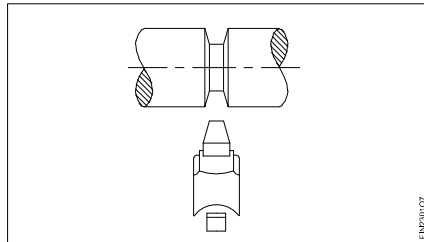
13 Which angle of the tool prevents from getting jammed in the groove and causes breakage?

- A Side rake angle
- B Side relief angle
- C Side clearance angle
- D Front clearance angle

14 What is the unit of cutting speed in turning?

- A mm/sec
- B m/sec
- C m/min
- D mm/min

15 What is the type of operation is carried out?



- A Straight groove B Vee groove
C Round groove D Square groove

16 What is the formula to calculate the turning time?

- A $\frac{l \times f}{n \times N}$ B $\frac{l \times h}{f \times N}$
C $\frac{l \times n}{f \times N}$ D $\frac{f \times n}{i \times h}$

17 What is the name of portion between root and crest of the thread?

- A Root B Flank
C Depth D Thread angle

18 What is the principle of dial test indicator?

- A Sliding B Screw and nut
C Rack and pinion D Worm and worm wheel

19 Which dimension is measured by using screw thread micrometer?

- A Pitch of screw thread B Minor dia of screw thread
C Major dia of screw thread D Effective dia of screw thread

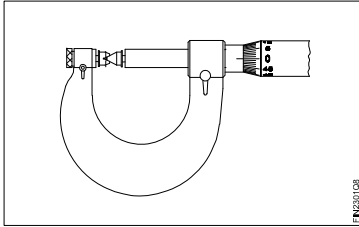
20 What type of power transmission is transmitted by spur gear?

- A Parallel transmission B Angular transmission
C Intersecting transmission D Perpendicular transmission

21 How many types of bed ways are in centre lathe machine?

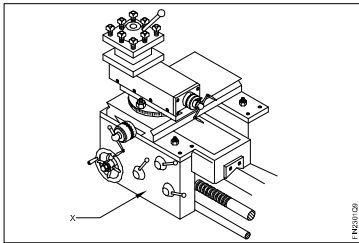
- A 2
- B 3
- C 5
- D 4

22 What is the name of instrument?



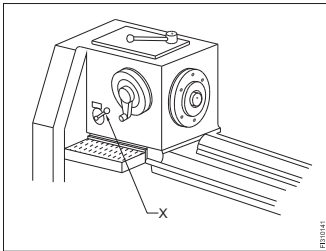
- A Vernier micrometer
- B Outside micrometer
- C Three wire micrometer
- D Screw thread micrometer

23 What is the name of part marked as 'X' in centre lathe?



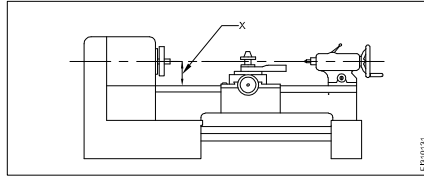
- A Apron
- B Saddle
- C Gross slide
- D Compound rest

24 What is the name of part marked as 'X'?



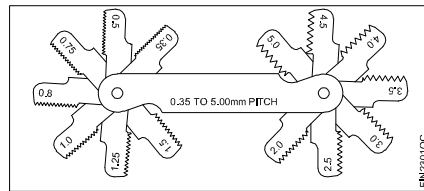
- A Clutch
- B Feed selector
- C Lathe spindle
- D Feed direction lever

25 What is the name the specification of lathe marked as 'X'?



- A Bed length
- B Centre height
- C Swing diameter
- D Between the center of lathe

26 What is the name of gauge?



- A Ring gauge
- B Screw pitch gauge
- C Feeler gauge
- D Radius gauge

27 Which is the range of metric screw thread dimension is measured by screw thread micrometer?

- A M1 to M6
- B M1 to M12
- C M1 to M30
- D M1 to M32

Level 2

1 What is the merit of three jaw chuck in lathe machine?

- A Work can be set with ease
- B Run out cannot be corrected
- C Only round and hexagonal components can be held
- D Accuracy decreases as chuck gets worn out

- 2 What is the de-merit of the four jaw chuck?
- A Jaws are reversible
 - B Irregular shape job can be held
 - C Heavy cuts can be given
 - D Small and finished work will be damaged
- 3 Which type of rake angle make slope from the front towards back of the tool?
- A End rake angle
 - B Side rake angle
 - C Negative rake angle
 - D Positive top rake angle
- 4 What is the name of the operation carried out in turning to remove burr and sharpness from the edge of component?
- A Grooving
 - B Chamfering
 - C Step turning
 - D Plain turning
- 5 Find out the spindle speed for turning dia 40mm cast iron rod, if the cutting speed is 15 m/min?
- A 119.3 rpm
 - B 100.3 rpm
 - C 219.3 rpm
 - D 109.4 rpm
- 6 Which is the vertical distance from crest to the root?
- A Lead
 - B Flank
 - C Pitch
 - D Depth
- 7 Calculate the blank size for external threading M16 x 2.0?
- A 14.0 mm
 - B 15.8 mm
 - C 16.0 mm
 - D 18.0 mm
- 8 What is the de-merit of 3 jaw chuck??
- A Work can be set with ease
 - B Internal and external jaws are available
 - C Accuracy decreases
 - D A wide range of cylindrical and hexagonal work can be held

- 9 What is the use of screw pitch gauge?
- A Check lead of the thread B Check the pitch of the thread
C Check the minor dia of thread D Check the major dia of thread
- 10 What is the purpose of back gear unit in lathe machine?
- A Reduce the spindle speed
B Increase the spindle speed
C Quick change spindle speed
D To avoid abnormal impact on spindle
- 11 What is the range of pitch that can be measured by screw thread micrometer?
- A 0.01 to 0.5 mm B 0.02 to 3.5 mm
C 0.25 to 3.5 mm D 0.50 to 5.0 mm

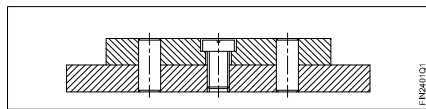
Level 3

- 1 What will be the effect, if the carriage is not locked while facing?
- A Correct face B Convex face
C Concave face D Pip left in the centre
- 2 What is the defect caused if the tool is not set to the correct centre height while facing?
- A Convex face B Concave face
C Pip left in the centre D Rough surface on the face

Module - 4 : Basic Maintenance

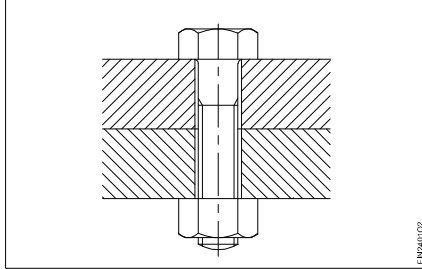
Level 1

- 1 Which chart is used to record the skill of the operator in practice?
 - A Testing chart
 - B Levelling chart
 - C Geometric chart
 - D Performance chart
- 2 Which bearing withstands load is parallel to its axis?
 - A Needle bearing
 - B Thrust bearing
 - C Plain bearing
 - D Split bearing
- 3 Which belongs to Total Productive Maintenance?
 - A Supply defective goods to the customers
 - B Unscheduled maintenance
 - C Produces goods without increasing product quality
 - D Reduces maintenance cost
- 4 What is the high level formula for the lean manufacturing OEE?
 - A Availability x Quantity x Quality
 - B Availability x Productivity x Quality
 - C Product output x Quality x Availability
 - D Product output x Quantity x Quality
- 5 Identify the method of assembly technique?



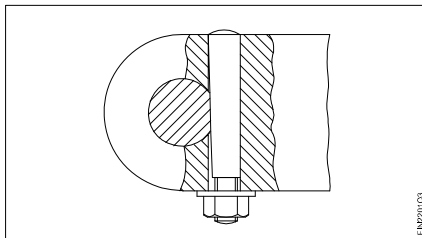
- A Dowelling
- B Pinning
- C Peening
- D Staking

6 Identify the type of bolt?



- A Bolt with clearance hole
- B Body fit bolt
- C Anti-fatigue bolt
- D 'T' bolt

7 Name the type of part shown in assembly technique.



- A Taper pin
- B Split pin
- C Cotter pin
- D Spring pin

Level 2

1 What is the use of dowel in assembly technique?

- A Accurate positioning of two or more parts
- B Securing components together
- C Eliminate the need for drilling
- D Increase the efficiency of fit

2 Which maintenance record mention the date of commissioning of machine?

- A Inspection check list
- B Equipment record
- C Product manual
- D Servicing manual

- 3 What is the name of activity carried out to prevent break down of machinery in basic maintenance?
- A Routine maintenance B Preventive maintenance
C Repairing activity D Inspection activity
- 4 What is the use of spring pins?
- A Easy assembly and disassembly of parts
B Locate assemblies with wide tolerance in corresponding holes
C Retain the parts in assembly
D Accurate positioning of parts
- 5 Which bolt in the assembly prevent the relative movement between the workpieces?
- A Anti-fatigue bolt B 'T' bolt
C Body fit bolt D Self locking bolt
- 6 Which assembly technique is similar to riveting method?
- A Dowelling B Pinning
C Peening D Staking

Level 3

- 1 Why extra clearance given between bearing and journal in the aluminium alloy bearing?
- A To overcome high thermal expansion
B To overcome linear expansion
C To overcome coefficient expansion
D To overcome lubricant to flow freely

Semester - 1 : Keys

Module - 1 : Safety

Level 1

1 B	9 D	17 A
2 A	10 D	18 A
3 B	11 A	19 C
4 A	12 A	20 D
5 C	13 C	
6 A	14 B	
7 B	15 B	
8 D	16 D	

Module - 2 : Basic Fitting

Level 1	Level 2	Level 3
1 B	1 A	1 A
2 C	2 A	2 B
3 C	3 D	3 A
4 C	4 A	4 B
5 C	5 D	5 A
6 A	6 B	6 A
7 A	7 D	7 C
8 D	8 D	8 B
9 B	9 A	
10 C	10 A	
11 C	11 C	
12 A	12 B	
13 D	13 A	
14 B	14 B	
15 A	15 D	
16 D	16 C	
17 C	17 B	
18 D	18 B	
19 C	19 A	
20 B	20 C	
21 A	21 C	
22 C	22 D	
23 A	23 C	

24 C
25 C
26 B
27 A
28 A
29 D
30 C
31 A
32 B
33 B
34 C
35 A
36 C
37 A
38 A
39 B
40 D
41 A
42 D
43 B
44 A
45 C
46 D
47 B
48 C
49 A
50 A
51 D
52 C
53 D
54 D
55 D
56 A
57 B
58 A
59 C
60 B
61 C
62 D
63 C

24 D
25 A
26 B
27 D
28 B
29 D
30 A
31 C
32 B
33 A
34 A
35 C
36 C
37 A
38 B

64	B
65	A
66	C
67	D
68	D
69	C
70	B
71	B
72	B
73	D
74	D
75	B
76	A
77	A
78	B
79	C
80	D
81	A
82	C
83	C
84	A
85	B
86	A
87	C
88	A
89	A
90	D
91	C
92	B
93	A
94	D
95	A
96	B
97	B
98	C
99	C
100	B

Module - 3 : Sheet Metal

Level 1	Level 2	Level 3
1 A	1 C	1 D
2 D	2 D	2 D
3 C	3 B	3 B
4 C	4 B	4 C
5 A	5 C	5 A
6 D	6 D	6 C
7 C	7 C	
8 C	8 A	
9 C	9 B	
10 A	10 B	
11 D	11 D	
12 B	12 A	
13 A	13 D	
14 A	14 C	
15 C		
16 B		
17 B		
18 D		
19 D		
20 C		
21 D		
22 C		
23 D		
24 D		
25 A		
26 C		
27 D		
28 C		
29 B		
30 B		
31 C		
32 C		
33 D		
34 C		
35 D		
36 D		
37 D		

38	A
39	D
40	B
41	B
42	B
43	D
44	A
45	D

Module - 4 : Welding

Level 1		Level 2		Level 3	
1	C	1	A	1	C
2	B	2	D	2	A
3	C	3	D	3	B
4	C	4	A		
5	A	5	A		
6	D	6	D		
7	A	7	A		
8	D	8	A		
9	A	9	D		
10	C	10	A		
11	C				
12	C				
13	C				
14	C				
15	D				
16	A				
17	B				

Semester - II : Keys

Module - 1 : Drilling

Level 1	Level 2	Level 3
1 C	1 A	1 A
2 A	2 D	2 C
3 C	3 C	3 C
4 D	4 A	4 D
5 A	5 D	5 A
6 A	6 D	6 A
7 B	7 D	7 D
8 C	8 D	8 B
9 C	9 B	9 C
10 B	10 B	10 C
11 D	11 B	11 D
12 B	12 D	12 D
13 B	13 B	13 B
14 C	14 A	14 B
15 B	15 B	15 A
16 A	16 C	16 A
17 A	17 A	17 D
18 C	18 A	18 B
19 D	19 B	19 D
20 D	20 A	20 A
21 A	21 A	
22 A	22 B	
23 B	23 B	
24 A	24 A	
25 C	25 A	
26 C	26 D	
27 B	27 B	
28 C	28 D	
29 C		
30 D		
31 C		
32 D		
33 B		
34 D		
35 B		

36	A
37	C
38	D
39	D
40	D
41	C
42	C
43	A
44	A
45	D
46	B
47	C
48	C
49	D
50	A
51	C
52	C
53	A
54	B
55	D
56	D
57	D
58	D
59	C
60	B
61	C
62	B
63	C
64	A
65	A
66	B

Module - 2 : Fitting Assembly

Level 1		Level 2		Level 3	
1	B	1	D	1	D
2	A	2	A		
3	C	3	D		
4	A	4	C		
5	C	5	C		
6	D	6	C		
7	C	7	D		
8	B	8	A		
9	A	9	A		
10	C	10	B		
11	C	11	D		
12	C	12	B		
13	D	13	A		
14	C	14	C		
15	C	15	C		
16	A	16	D		
17	C	17	B		
18	D	18	C		
19	D	19	A		
20	D				
21	B				
22	B				
23	C				
24	C				
25	A				
26	C				
27	A				
28	C				
29	A				
30	A				
31	C				
32	C				
33	B				
34	C				

Module - 3 : Turning

Level 1	Level 2	Level 3
1 C	1 A	1 B
2 B	2 D	2 C
3 D	3 D	
4 D	4 B	
5 C	5 A	
6 D	6 D	
7 D	7 B	
8 C	8 C	
9 D	9 B	
10 B	10 A	
11 C	11 C	
12 A		
13 B		
14 C		
15 B		
16 C		
17 B		
18 C		
19 D		
20 A		
21 B		
22 D		
23 A		
24 D		
25 B		
26 B		
27 C		

Module - 4 : Basic Maintenance

Level 1	Level 2	Level 3
1 D	1 A	1 A
2 B	2 B	
3 D	3 B	
4 B	4 B	
5 A	5 C	
6 A	6 C	
7 C		