

Fitter - Block 1 - Module 1: Safety

Questions: 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 What is the name of mandatory symbol?



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

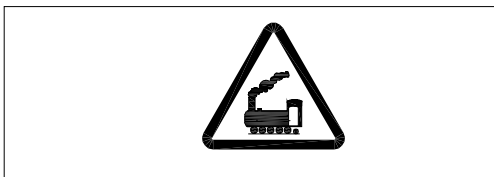
3 What is the class of fire caused by flammable liquids & liquifiable solids?

- 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 What is the name of 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 bromochlorodifluoro 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 Which fire extinguisher is used to extinguish class 'B' fire?

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

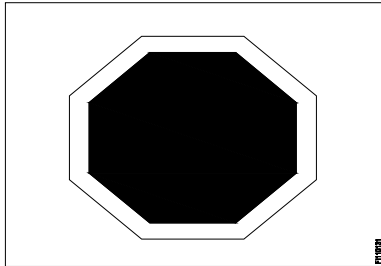
13 What is the referred as 'golden hours' period for patients?

- A 30 minutes
- B 1 hrs
- C 45 minutes
- D 2 hrs

14 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

15 What is the mandatory sign?

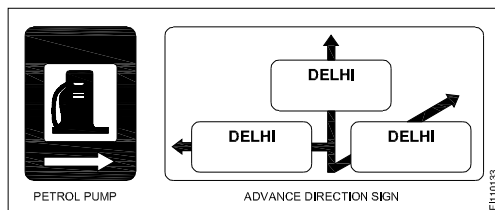


- A Stop
- B Give way
- C Pedestrian crossing
- D Over taking prohibited

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

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

17 What is the kind of road sign?



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

18 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

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

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

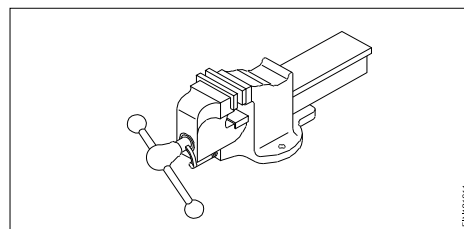
20 What is the process of breaking down the materials into organic compounds and can be used as manure?

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

21 What is the colour code for plastic waste bin?

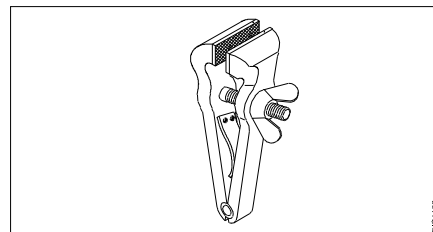
- A Red
- B Blue
- C Green
- D Yellow

22 What is the name of the vice?



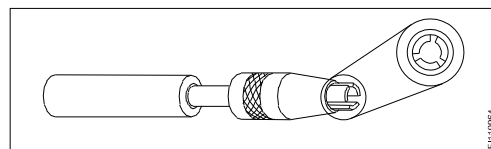
- A Hand vice
- B Bench vice
- C Tool maker's vice
- D Quick releasing vice

23 What is the name of the vice?



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

24 What is the name of vice?

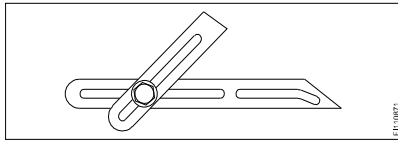


- A Pin vice
- B Pipe vice
- C Hand vice
- D Machine vice

25 What is the accuracy of a try square?

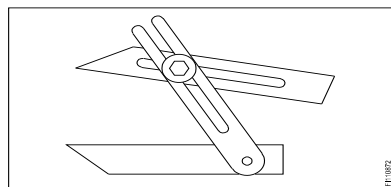
- A** 0.02 mm per 10 mm length
- B** 0.004 mm per 10 mm length
- C** 0.002 mm per 10 mm length
- D** 0.001 mm per 10 mm length

26 What is the name of gauge?



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

27 What is the name of angular measuring instrument?



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

28 How many millimetre in one metre?

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

Questions: Level 2

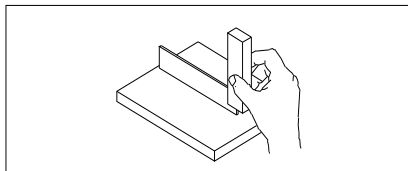
1 Which vice is used for holding small work that requires filing or drilling?

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

2 Which is used to finish the resharpened divider point?

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

3 What is the name of operation?



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

4 What is the use of bevel protractor?

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

5 Which method of waste disposal is not expensive?

- A Recycling
- B Composing
- C Land fills
- D Burning

6 What immediate action to be taken to stop the bleeding of the victim?

- A Apply pressure over the injured part
- B Apply tincture over the injured part
- C Clean and dress
- D Call doctor

7 Which personal protective equipments is used to protect nose from dust particly?

- A Helmet
- B Safety shoes
- C hand gloves
- D Nose mask

8 Which safety signs are especially benefit to the passengers of two wheelers?

- A Cautionary signs
- B Information signs
- C Mandatory sign
- D Warning signs

9 Which fire extinguisher is used for electrical fire?

- A Water filled extinguisher
- B Foam extinguisher
- C Halon extinguisher
- D Dry powder extinguisher

10 What will happen if lifting heavy load?

- A Crushing of hands
 - B Strains to muscles
 - C Crushing of feet
 - D Cuts and abrasives
-

Questions: Level 3

1 What is the immediate action to prevent injured person further harm?

- A Call doctor
- B Take to hospital
- C Apply first aid techniques
- D Call somebody

2 What is the cause of panic?

- A Mistakes
- B Easy work
- C Conscious work
- D Calm in work

3 What is the remedy to save face from spark generated during welding and grinding?

- A Goggles
- B Helmets
- C Face shield
- D Nose mask

4 What will be the effect if a person occur the symptoms of drowsiness?

- A Activeness
 - B Laziness
 - C Concious
 - D Unconscious
-

Module 1 : Safety - Key paper

Questions: Level 1

SL.No	Key
1	B
2	A
3	B
4	A
5	C
6	A
7	B
8	D
9	D
10	D
11	A
12	D
13	A
14	C
15	B
16	B
17	D
18	A
19	A
20	C
21	D
22	D
23	C
24	A
25	C
26	A
27	C
28	C

Questions: Level 2

SL.No	Key
1	D
2	D
3	B
4	C
5	A
6	A
7	D
8	B
9	C
10	B

Question: Level 3

SL.No	Key
1	C
2	A
3	C
4	D

Fitter - Block 1 - Module 2 : Basic Fitting

Questions: Level 1

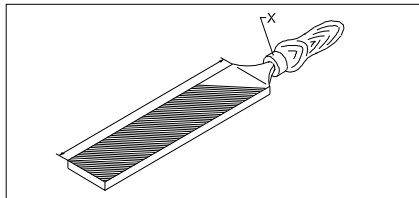
1 Which marking media is poisonous?

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

2 Which is the property of metal that can be drawn into wire without rupture?

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

3 What is the name of part marked as 'X' of the file?



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

4 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

5 Which file has the parallel edges throughout the length?

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

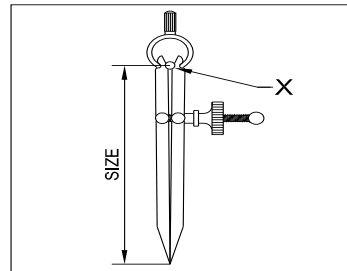
6 Which marking media provide clear lines on machine finished surfaces?

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

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

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

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



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

9 Which file is used for filing narrow grooves and angles above 10°?

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

10 Which property of metal to resist the effect of tensile forces without rupture?

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

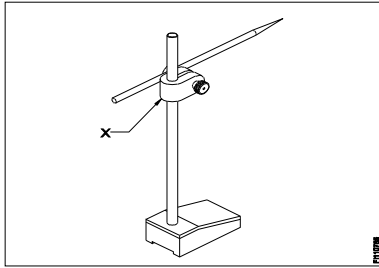
11 Which punch is used for witness marks?

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

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

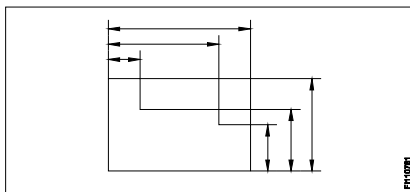
- A Jenny caliper
- B Inside caliper
- C Outside caliper
- D Spring joint caliper

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



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

14 Which type of datum is followed?



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

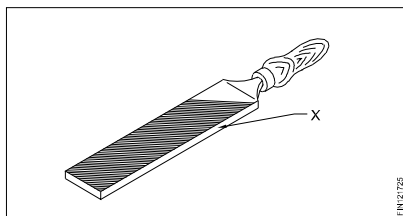
15 Which file is having rows of teeth cut in one direction?

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

16 Which file is used for filing wood and leather?

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

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



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

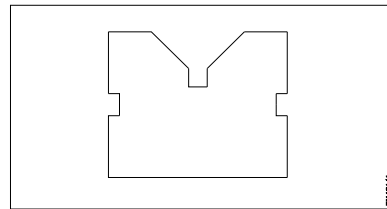
18 Which marking media is applied to rough forgings and castings?

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

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

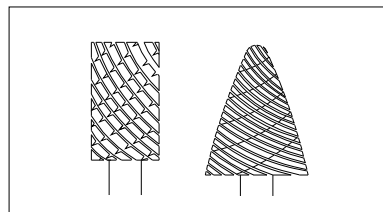
- A Rake angle
- B Point angle
- C Clearance angle
- D Angle of inclination

20 What is the name of 'V' block?



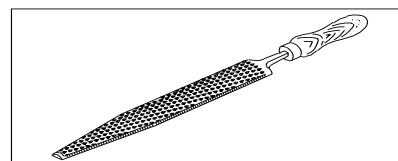
- A Single level double groove 'V' block
- B Single level single groove 'V' block
- C Double level single groove 'V' block
- D Double level double groove 'V' block

21 What is the name of file?



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

22 What is the cut of file?



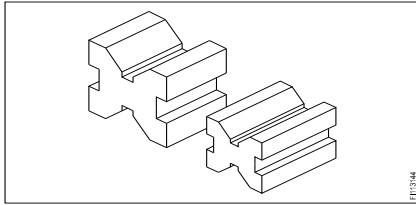
- A Double cut file
- B Rasp cut file
- C Single cut file
- D Curved cut file

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

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

- 24 Which property of metal that withstand shock or impact?
- A Tenacity
 - B Hardness
 - C Brittleness
 - D Toughness

25 What is the type of "V" blocks?

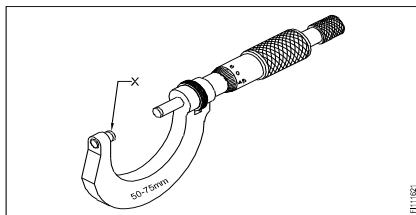


- A Single level single groove
- B Single level double groove
- C Double level single groove
- D Double level double groove

26 What is the accuracy of metric outside micrometer?

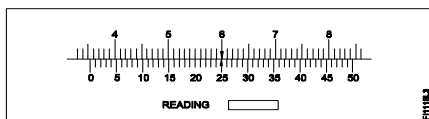
- A 0.01 mm
- B 0.001 mm
- C 0.02 mm
- D 0.002 mm

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



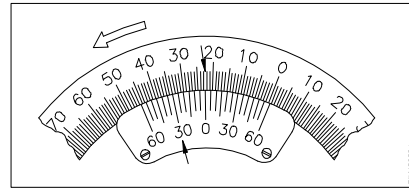
- A Anvil
- B Thimble
- C Spindle
- D Spindle lock

28 What is the reading of vernier caliper?



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

29 What is the reading of vernier bevel protractor?

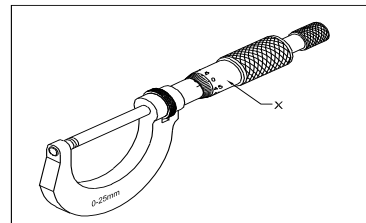


- A 27°
- B 67° 30'
- C 157° 30'
- D 159° 30'

30 What is the unit of feed in drilling operation?

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

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

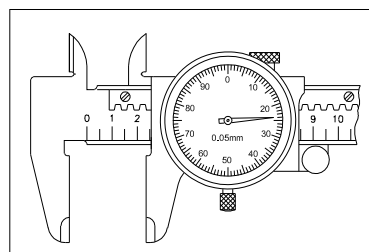


- A Spindle
- B Sleeve
- C Thimble
- D Spindle lock

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

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

33 What is the measurement in the dial caliper?

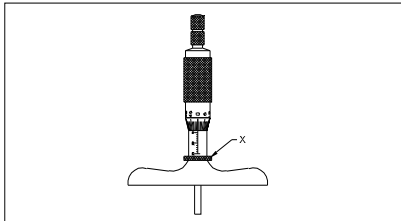


- A 24.2 mm
- B 24.8 mm
- C 25.2 mm
- D 26.2 mm

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

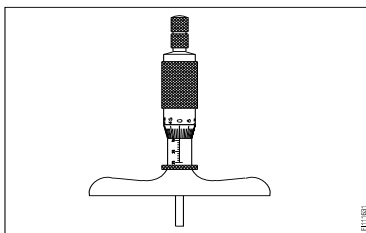
- A Dial
- B Disc
- C Blade
- D Stock

35 What is the name of part marked as 'X' in depth micrometer?



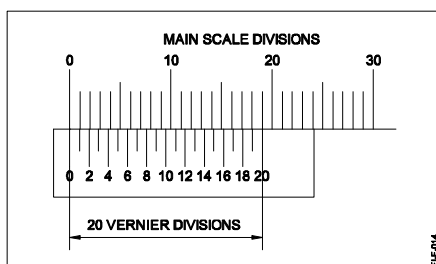
- A Cap
- B Lock
- C Stock
- D Thimble

36 What is the name of micrometer?



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

37 What is the least count of the Vernier Caliper?



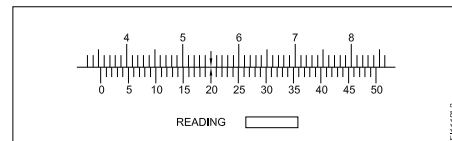
- A 0.01mm
- B 0.02mm
- C 0.05mm
- D 0.95mm

Questions: Level 2

- 1 Which part of universal surface gauge holds the scriber?
A Snug
B Guide pin
C Rocker arm
D Fine adjustment screw
- 2 What is the purpose of slots provided in the slotted angle plate?
A Clamping the work piece
B Easy handling
C Reduce weight
D Better appearance
- 3 Which material is used to manufacture grade 'B' 'V' blocks?
A Tool steel
B Carbon steel
C High quality steel
D Closely grained cast iron
- 4 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
- 5 Which is used to finish the resharpened divider point?
A File
B Grinder
C Scraper
D Oil stone
- 6 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
- 7 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

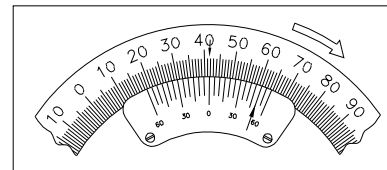
- 8 Why chalk is applied on the face of the file?
A To reduce excessive pressure
B To increase chip removed rate
C To reduce penetration and pinning
D To increase penetration and pinning
- 9 What is the spindle movement of one division of thimble with spindle thread of 0.5mm pitch in micrometer?
A 0.01 mm
B 0.10 mm
C 1.00 mm
D 10.0 mm

- 10 What is the reading of a vernier caliper?



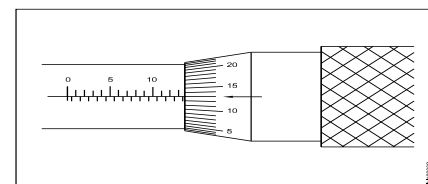
- A 35.1
B 35.2
C 35.3
D 35.4

- 11 What is the reading of vernier bevel protractor?



- A 18° 50'
B 41° 50'
C 50°
D 58° 50'

- 12 What is the reading of the outside micrometer 50 to 75mm range?



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

- 13 What is the principle of micrometer?

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

14 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

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

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

16 What is the accuracy of bevel protractor?

- A** 5"
 - B** 5'
 - C** 1°
 - D** 5°
-

Questions: Level 3

- 1 What is the reason to provide convexity is file?
A See-saw action
B Easy filling
C More forward pressure
D More downward pressure
-
- 2 What defect will occur filling with pinned file?
A Smooth filling
B Rough surface
C Finished surface
D Scratches on the surface
-
- 3 Which property of chisel may reduce while grinding without coolant?
A Brittleness
B Maleability
C Toughness
D Ductility
-
- 4 What will be the effect if the rake angle is less while chiselling?
A Chisel will slip
B Chisel edge digs
C Easy chipping
D Chisel will break
-
- 5 What will be the effect if the clearance angle to low while chipping?
A Chisel will slip
B Chisel dig in the job
C Easy chipping
D Chisel will break
-
- 6 What is the cause while filling if pressure apply on the full stroke?
A More metal removing
B Good surface finish
C Blunt the teeth
D Smooth filling
-
- 7 Which grade of file is used to remove small quantity of material and to get good finish?
A Smooth file
B Rough file
C Bastard file
D Second cut file
-

- 8 Which type of vice is used in forgeshop for bending and forging?
A Pipe vice
B Leg vice
C Pin vice
D Hand vice
-
- 9 Which type of chisel is used for squaring materials at the corner and joints?
A Flat chisel
B Half round file
C Diamond point chisel
D Web chisel
-

Module 2 : Basic Fitting - Key paper

Questions: Level 1

SL.No	Key
1	C
2	A
3	C
4	C
5	A
6	B
7	A
8	D
9	D
10	B
11	A
12	A
13	B
14	A
15	A
16	C
17	D
18	A
19	C
20	B
21	A
22	B
23	A
24	D
25	C
26	A
27	A
28	D
29	C
30	B
31	C
32	D
33	D
34	C
35	B
36	A
37	C

Questions: Level 2

SL.No	Key
1	A
2	A
3	C
4	B
5	D
6	C
7	D
8	C
9	A
10	D
11	B
12	A
13	B
14	D
15	A
16	C

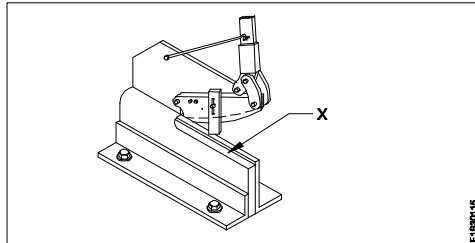
Question: Level 3

SL.No	Key
1	B
2	D
3	C
4	B
5	A
6	C
7	A
8	B
9	C

Fitter - Block 1 - Module 3: Sheet Metal

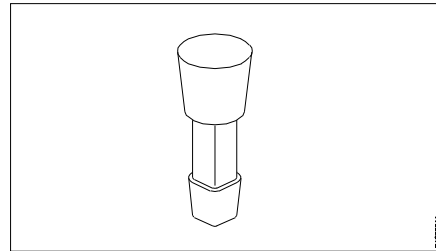
Questions: Level 1

- 1 What is the name of part of lever shear marked as 'x'?

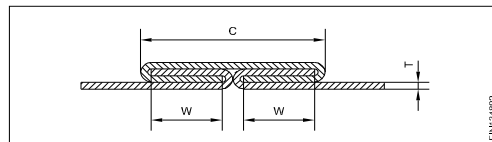


- A Base plate
 B Lever arm
 C Lower blade
 D Upper blade
-
- 2 Which is the zinc coated iron?
 A Black iron
 B Tinned iron
 C Stainless steel
 D Galvanised iron
-
- 3 Which sheet metal is highly resistant to corrosion and abrasion?
 A Copper
 B Black iron
 C Aluminium
 D Galvanised iron
-
- 4 What is the material of solder?
 A Welding rod
 B Synthetic element
 C Pure metal or alloy
 D Non metallic element
-
- 5 Which flux used for soldering steel?
 A Ammonium chloride
 B Zinc chloride
 C Resin
 D Paste
-
- 6 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

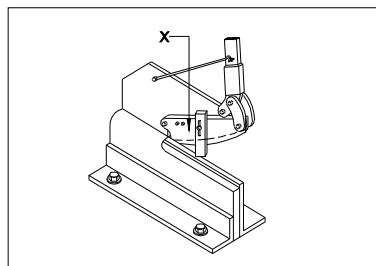
- 7 What is the name of supporting tool in sheet metal work?



- A Hatchet stake
 B Funnel stake
 C Half moon stake
 D Round bottom stake
-
- 8 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
-
- 9 What is the maximum cutting capacity of straight snip?
 A 20 SWG
 B 19 SWG
 C 18 SWG
 D 16 SWG
-
- 10 Which flux is used for soldering tin sheets?
 A Resin
 B Paste
 C Zinc chloride
 D Ammonium chloride
-
- 11 What is the part marked as 'x' in the hand shearing machine?



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

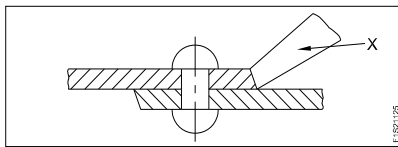
12 Which tool is used to make fluid-tight joint by pressing the riveted edge plate?

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

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

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

14 What is the name of tool marked as 'X' in riveting?



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

Questions: Level 2

- 1 What is the use of bent snips?
A Groove cut
B Zigzag cut
C Straight cut
D Circular cut
-
- 2 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/cm^3 .
A 21.4 Kg
B 31.4 Kg
C 41.4 Kg
D 50.4 kg
-
- 3 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
-
- 4 What is the use of stakes in sheet metal work?
A Sharpening
B Supporting
C Rest of work piece
D Protect the tool from damage
-
- 5 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
-
- 6 Which sheet metal is easiest to joint and solder?
A Tinned plate
B Lead
C Galvanised iron
D Stainless sheet
-
- 7 Which sheet metal withstand contact with water and exposure to weather?
A Black iron
B Copper sheet
C Stainless sheet
D Galvanised iron
-

Questions: 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 Which of the following chemical used to clean metal and remove the oxides from the metal surface prior soldering?
- A Sulphuric acid
 - B Kerosene
 - C Flux
 - D Hydrochloric acid
-
- 3 Which of the following is an alloy of steel with nickel, chromium and other metals?
- A Stainless steel
 - B Mild steel
 - C Cast iron
 - D Carbon steel
-
- 4 Which of the following sheet is also called as C.R.C.A sheet?
- A Cast Iron Steel
 - B Aluminium sheet
 - C Cold Rolled sheet
 - D Hot Rolled sheet
-

Module 3 : Sheet Metal - Key paper

Questions: Level 1

SL.No	Key
1	C
2	D
3	C
4	C
5	A
6	B
7	D
8	D
9	A
10	C
11	D
12	D
13	A
14	D

Questions: Level 2

SL.No	Key
1	D
2	B
3	C
4	B
5	D
6	A
7	D

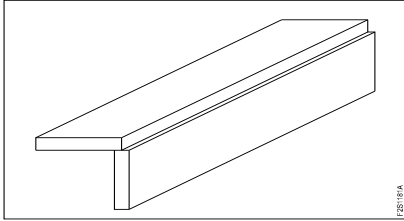
Question: Level 3

SL.No	Key
1	A
2	C
3	A
4	C

Fitter - Block 1 - Module 4 : Welding

Questions: Level 1

1 What is the name of joint in the arc welding?



- A Butt joint
- B Lap joint
- C Corner joint
- D Edge joint

2 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

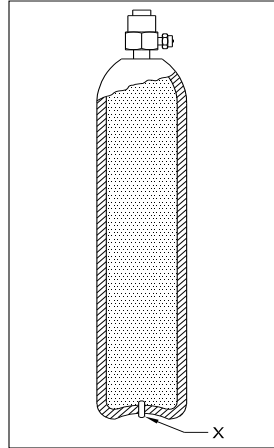
3 Which arc welding machine provides better heat distribution in the electrode and job?

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

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

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

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



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

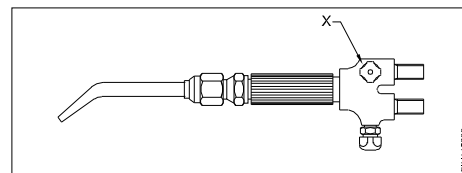
6 What is the name of the metal edge in an angle during welding and cutting operations?

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

7 What is the oxygen cylinder colour?

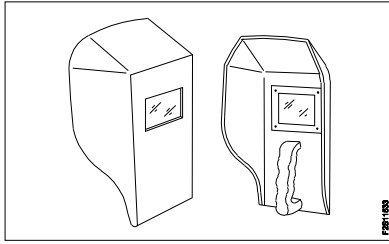
- A Red
- B Blue
- C Black
- D Maroon

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



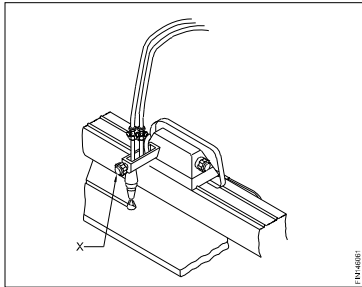
- A Handle
- B Mixing chamber
- C Oxygen control value
- D Acetylene control value

9 What is the name of PPE?



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

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



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

11 What is the storing capacity of oxygen cylinder?

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

12 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

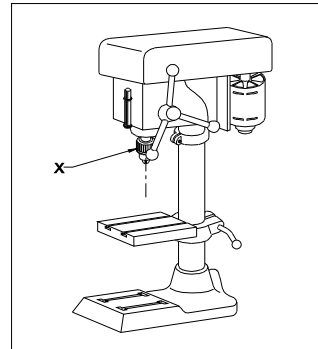
13 Which type of rivet is used for avoiding the projection on the surface of the riveted joint?

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

14 Which type of gas flame is the most suitable for brazing?

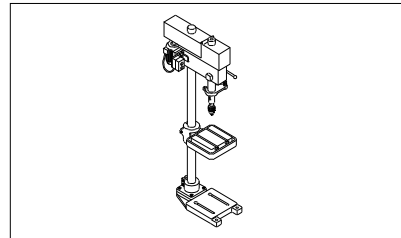
- A oxy-LP gas flame
- B oxy-coal gas flame
- C oxy-acetylene gas flame
- D oxy-hydrogen gas flame

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



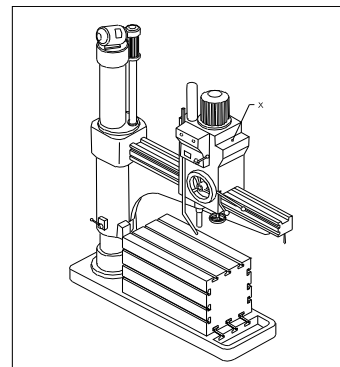
- A Drill chuck
- B Feed handle
- C Driving motor
- D Depth gauge and stop

16 What is the name of drilling machine?



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

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



- A Base
- B Spindle
- C Radial arm
- D Spindle head

Questions: Level 2

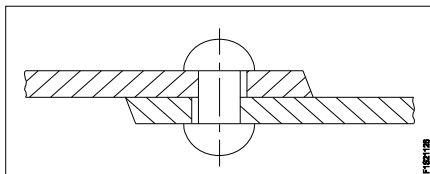
- 1 What is the function of AC welding transformer?
- A It converts to low voltage high current ampere
- B It converts to high voltage and low current ampere
- C It converts to low voltage and low current ampere
- D It converts to high voltage and high current ampere
-
- 2 What is the disadvantage of 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
-
- 11 What is the purpose of the rivet set used in riveting?
- A to remove the burr between the sheets.
- B to align the rivet in correct position.
- C to straighten the sheets before riveting.
- D to bring the sheets closely together
-
- 12 Which one of following nozzle size is suitable for 5 mm thickness of mild steel plates to be welded?
- A 5
- B 7
- C 10
- D 13
-
- 13 What type of water can be used on the acetylene connection?
- A Salt water
- B Soap water
- C Hard water
- D Fresh water
-

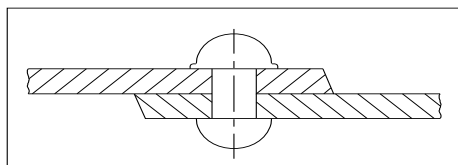
-
- 14** Which welding set is used for welding, where electrical power source is not available?
- A** rectifier welding set
 - B** transformer welding set
 - C** motor generator welding set
 - D** engine generator welding set
-
- 15** Which drilling machine, the spindle head is moved towards or away from the column?
- A** Pillar drilling machine
 - B** Gang drilling machine
 - C** Radial drilling machine
 - D** Sensitive bench drilling machine
-
- 16** Which factor is to be considered for the selection of nozzle size in gas cutting?
- A** Duration of cut
 - B** The purity of oxygen.
 - C** Thickness of material.
 - D** Type of cutting blow pipe.
-
- 17** Which flame should be set for preheating before cutting?
- A** Neutral flame
 - B** Oxidising flame
 - C** Carburising flame
 - D** Slightly carburising flame
-

Questions: Level 3

- 1 What will be effect of weld if electrode is affected by moisture?
A porous weld
B minimum spatters
C a smooth weld bead
D easy slag removal.
- 2 What is the cause there is gap between two sheets after riveting?
A short a rivet length
B oversized drilled hole
C improper use of rivet set
D the rivet being too long.
- 3 What will happen if too little pressure of cutting oxygen is supplied?
A The kerf will be wide.
B The kerf will be narrow
C The metal will be cooled down.
D The metal will fail to cut completely.
- 4 What immediate action is to be taken in the event of flash back during gas welding?
A Close the cylinder valve.
B Close the regulator adjusting top screw.
C Close the blow pipe valve of oxygen.
D Close the blow pipe valve of acetylene.
- 5 What is the fault in riveting?

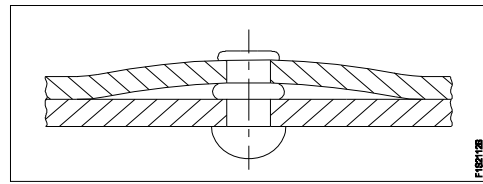


- A Burrs between plates
B Rivet head not centered
C Too much allowance given
D Holes on the plate are not in line
- 6 What is the name of riveting defect?



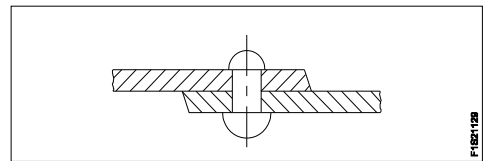
- A Too little allowance on shank
B Too much allowance on shank
C Rivet head not centered with shank
D Head of rivet not perpendicular to shank

- 7 What is the reason for faulty riveting?



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

- 8 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

- 9 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 - Key paper

Questions: Level 1

SL.No	Key
1	C
2	C
3	A
4	D
5	A
6	C
7	C
8	C
9	C
10	D
11	A
12	B
13	D
14	C
15	A
16	A
17	D

Questions: Level 2

SL.No	Key
1	A
2	D
3	D
4	A
5	A
6	D
7	A
8	A
9	D
10	A
11	D
12	D
13	B
14	D
15	C
16	C
17	A

Question: Level 3

SL.No	Key
1	A
2	C
3	D
4	C
5	D
6	B
7	A
8	A
9	C

Fitter - Block 1 - Module 5: Screw Threads

Questions: Level 1

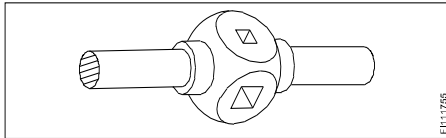
1 Which type of the tap wrench is used in the restricted place?

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

2 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)

3 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

4 Which one of the following will be suitable tap drill size for M6 tap for 100% thread?

- A 4.8 mm
- B 5.0 mm
- C 5.2 mm
- D 5.4 mm

5 What is the angle of BA thread?

- A 60 degrees
- B 55 degrees
- C 47.5 degrees
- D 45 degrees

6 What is the most suitable size of rod for M6 threading?

- A \varnothing 6 mm
- B \varnothing 5.9 mm
- C \varnothing 5.6 mm
- D \varnothing 5.2 mm

7 Which form of threads are used in the places where the sliding forces act in one direction?

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

Questions: Level 2

- 1 Calculate the tap drill size for M10 x 1.5 thread for ISO metric thread.
- A 8.2 mm
B 8.7 mm
C 8.75 mm
D 8.65 mm
-
- 2 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
-
- 3 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
-
- 4 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)
-
- 5 Which one of the following is the formula for tap drill size to form 100% thread?
- A major dia – $TPI \times \frac{1}{pitch}$
B major dia – $TPI \times pitch$
C major dia – $2 \times \text{depth of thread}$
D major dia – $1.5 \times pitch$
-
- 6 What is the correct tap drill for tapping M16 tap?
- A 14 mm
B 14.16 mm
C 15.03 mm
D 15.08 mm
-
- 7 Where the trapezoidal threads are used?
- A for coupling railway wagon
B for spindles of fly presses and screw jacks etc.
C for easy engagement and disengagement during transmission
D in a thread assembly where the sliding force acts in one directions
-

- 8 Calculate the blank size of a round rod for cutting M16 x 1.75 mm thread using the formula: Thread size -0.1 x pitch of thread.
- A 15.585 mm
B 15.725 mm
C 15.815 mm
D 15.825 mm
-
- 9 Which is used to rectify the damaged external threads?
- A Die nut
B Half die
C Circular die
D Adjustable screw plate die
-
- 10 Why the hand taps are chamfered at the lead?
- A Aligning
B Finishing
C Strengthening
D Gripping
-

Questions: Level 3

- 1 What is the reason if the crest of thread not formed completely after threading?
- A Insufficient coolant supply.
 - B Broken the tip of cutting edge of the tap.
 - C Hole size slightly less than the tap drill size.
 - D Hole size slightly more than the tap drill size.
-
- 2 What is the reason to provide small taper for the threaded length of BSP?
- A Avoid the leakage
 - B For better grip
 - C Sharp thread
 - D Good appearance
-
- 3 What is the method of remove broken studs very near to the surface?
- A Filling square form
 - B Using square taper punch
 - C EZY - out method
 - D Prick punch method
-
- 4 What is the use of screw pitch gauge?
- A To determine the pitch
 - B To measure the pitch
 - C To measure the pitch dia
 - D To measure the major die
-

Module 5 : Screw Threads - Key paper

Questions: Level 1

SL.No	Key
1	B
2	D
3	B
4	A
5	C
6	B
7	D

Questions: Level 2

SL.No	Key
1	A
2	A
3	C
4	A
5	C
6	B
7	C
8	D
9	A
10	A

Question: Level 3

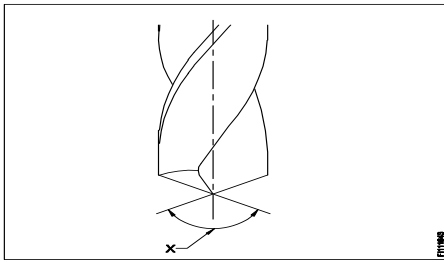
SL.No	Key
1	D
2	A
3	D
4	A

Fitter - Block 1 - Module 6 : Drills

Questions: Level 1

- 1 What is the unit of cutting speed in drilling operation?
- A m/rev
B mm/rev
C m/min
D mm/min

- 2 Which is the name of part marked as 'x'?



- A Lip
B Land
C Flank
D Point angle

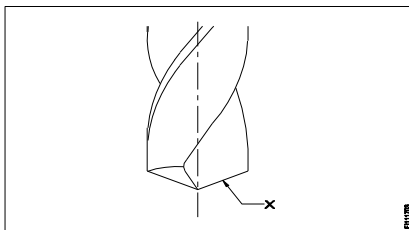
- 3 Which type of taper is provided in the drill shank?

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

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

- A Drift
B Sleeve
C Punch
D Hammer

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

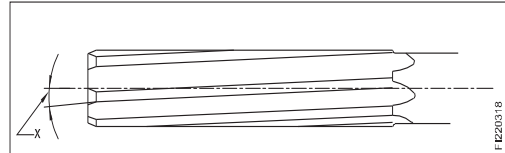


- A Lip
B Land
C Flank
D Web

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

- A Lip
B Web
C Point
D Shank

- 7 What is the name of the angle marked as 'x' in the reamer?



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

- 8 What is the angle of counter sinking for riveting?

- A 75°
B 80°
C 90°
D 120°

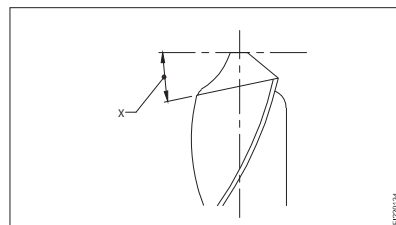
- 9 What is 'A' represents in grinding wheel specification 32A46H8V?

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

- 10 What is the angle of counter sink?

- A 60°
B 90°
C 105°
D 120°

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



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

Questions: Level 2

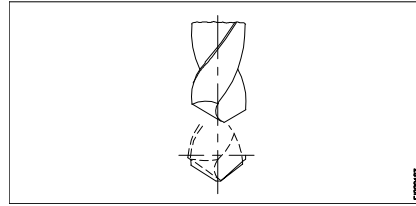
- 1 What is the name of the process of finishing the drilled hole?
A Reaming
B Spot facing
C Counter boring
D Counter sinking
-
- 2 What is the purpose of clearance angle in twist drill?
A Prevent rough holes
B Prevent over size holes
C Prevent unequal angle of cutting edges
D Prevent friction of drill 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 reamer?
A Drill a hole
B Enlarging a hole
C Threading a hole
D Finishing to correct size of the drilled hole
-
- 6 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
-
- 7 Which decides the point angle of drill?
A Drill material
B Job material
C Cutting speed
D Size of the drill
-
- 8 What is the operation of bevelling the end of a drilled hole ?
A Reaming
B Spot facing
C Counter boring
D Counter sinking
-

-
- 9 What is the name of the operation producing flat seat on drilled hole?
A Drilling
B Spot facing
C Counter sinking
D Counter boring
-

Questions: 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 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 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
-
- 6 What is the effect if clearance angle of drill is incorrect?
- A Over sized holes
 - B Over heated drills
 - C Rough holes
 - D Broken drill
-

-
- 7 What is the type of defect occur on drilled hole?



- A Rough holes
 - B Over heated drill
 - C Oversized holes
 - D Unequal flow of chips
-
- 8 What is the defect if pores of the grinding wheel get clogged?
- A Drilling
 - B Glazing
 - C Loading
 - D Dressing
-
- 9 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
-
- 10 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
-

Module 6 : Drills - Key paper

Questions: Level 1

SL.No	Key
1	C
2	D
3	C
4	A
5	A
6	B
7	C
8	A
9	D
10	B
11	D

Questions: Level 2

SL.No	Key
1	A
2	D
3	C
4	A
5	D
6	D
7	B
8	D
9	B

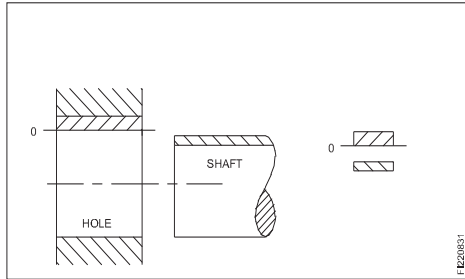
Question: Level 3

SL.No	Key
1	A
2	C
3	C
4	D
5	A
6	B
7	C
8	C
9	D
10	B

Fitter - Block 1 - Module 7: Interchangeability

Questions: 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 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

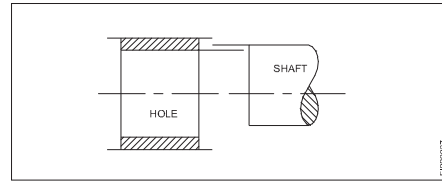
4 What is the difference between maximum limit of size and the minimum limit of size?

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

5 Which is grade of tolerance?

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

6 What is the name of fit?

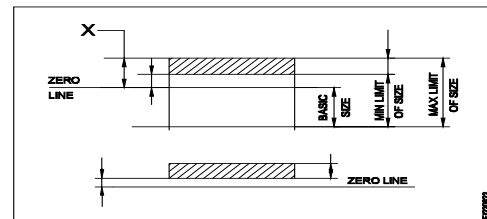


- A Transition fit
- B Shrinkage fit
- C Clearance fit
- D Interference fit

7 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

8 What is the marked as 'X'?



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

9 What is the smaller of the two limits of size?

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

10 What is the number of fundamental deviation in the BIS system available?

- A 25
- B 20
- C 15
- D 26

11 How many fundamental tolerance grades are available?

- A 18 grade
- B 25 grade
- C 15 grade
- D 12 grade

Questions: Level 2

- 1 What is the upper limit of the component size $20_{-0.005}^{+0.008}$?
- A 0.005
B 0.008
C 19.995
D 20.008
-
- 2 What is the term used for the relationship exists between two mating parts?
- A Fit
B Limit
C Tolerance
D Allowance
-
- 3 What is the lower limit of size, if dimension is stated as $\varnothing 25_{-0.00}^{+0.021}$?
- A 24.85mm
B 24.75mm
C 25.00mm
D 25.021mm
-
- 4 What is the algebraic difference between the actual size and its corresponding basic size?
- A Deviation
B Tolerance
C Actual deviation
D Upper deviation
-
- 5 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 25.2mm
B 24.8mm
C 25.02mm
D 24.08mm
-
- 6 What is the minimum limit of size if size on drawing is $20_{-0.005}^{+0.008}$?
- A 19.995
B 19.979
C 20.012
D 20.021
-

- 7 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
-
- 8 What is the size of the component by actual measurement after it is manufactured is called as?
- A Limit size
B Actual size
C Maximum size
D Minimum size
-
- 9 What is the tolerance if dimension is stated as 25 ± 0.02 mm in a drawing?
- A +0.02 mm
B -0.02 mm
C 0.04 mm
D 25.00 mm
-

Questions : Level 3

- 1 What is the fit if the limits of hole are 25.000 to 25.021 mm and the limits of shaft are 25.022 to 25.03 mm?
- A Clearance fit
 - B Interference fit
 - C Transition fit
 - D Maximum clearance fit
-
- 2 What is the name of the system, if the size of the shaft is kept constant and the size of the hole is varied to get the different class of fit?
- A Tolerance
 - B Allowance
 - C Shaft basic system
 - D Hole basic system
-
- 3 What is the least count of vernier height gauge?
- A 0.1 mm
 - B 0.01 mm
 - C 0.02 mm
 - D 0.2 mm
-
- 4 What is the measurement of 30H7?
- A It is an internal measurement of hole
 - B It is an external measurement of shaft
 - C It is a thickness measurement of MS flat
 - D It is a length measurement of MS flat
-

Module 7 : Interchangeability - Key paper

Questions: Level 1

SL.No	Key
1	B
2	A
3	C
4	A
5	C
6	D
7	C
8	D
9	C
10	A
11	A

Questions: Level 2

SL.No	Key
1	D
2	A
3	C
4	C
5	A
6	A
7	B
8	B
9	C

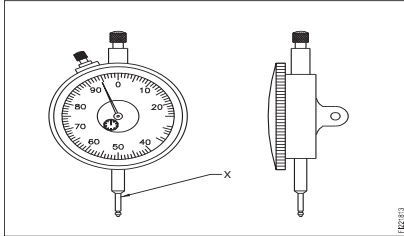
Question: Level 3

SL.No	Key
1	B
2	C
3	C
4	A

Fitter - Block 1 - Module 8 : Non Ferrous Metals

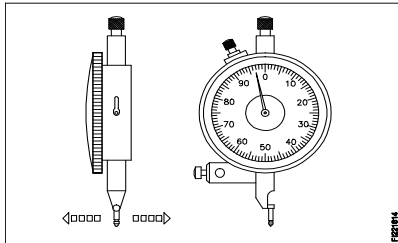
Questions: Level 1

- 1 What is the name of part marked as 'x' in dial gauge?



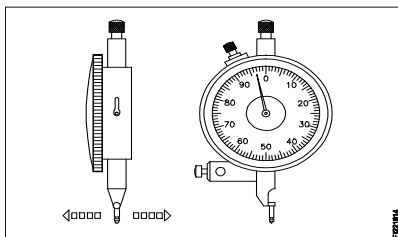
- A Anvil
- B Steam
- C Pointer
- D Plunger

- 2 What is the name of part marked as 'X'?



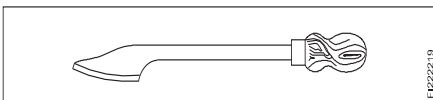
- A Anvil
- B Steam
- C Pointer
- D Plunger

- 3 What is the name of the instrument?



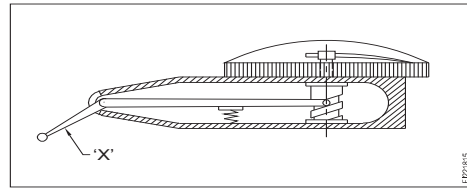
- A Dial vernier caliper
- B Vernier micrometer
- C Dial test indicator lever type
- D Dial test indicator plunger type

- 4 What is the name of the tool?



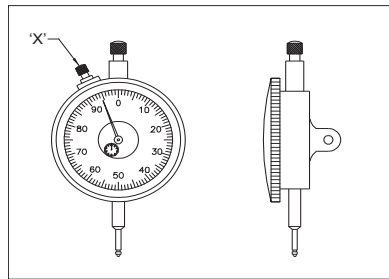
- A Flat scraper
- B Hook scraper
- C Half round scraper
- D Triangular scraper

- 5 What is the name of the part marked as 'X' of lever type dial test indicator?



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

- 6 What is the name of the part marked as 'X' in dial test indicator?

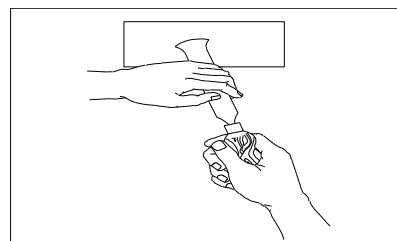


- A Steam
- B Pointer
- C Back plug
- D Bezel clamp

- 7 What is the angle of holding the scrapers for soft metal?

- A 30°
- B 60°
- C 40°
- D 20°

- 8 What is the name of operation?



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

9 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

10 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

11 Which precision instrument is used for comparing and determining the variation in the sizes of the component?

- A Micrometer
- B Comparators
- C Dial test indicator
- D Vernier bevel protector

12 What mechanism is used in the lever type dial test indicator?

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

13 What is the product obtained from blast furnace?

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

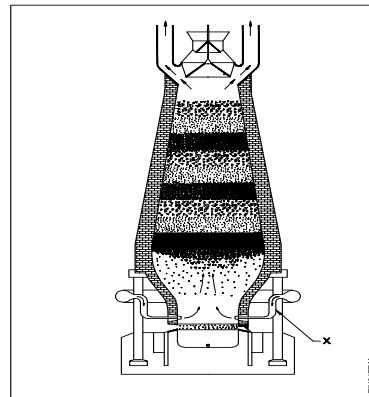
14 How much copper contains in pyrites ore?

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

15 Which metal is resistant to many types of acids?

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

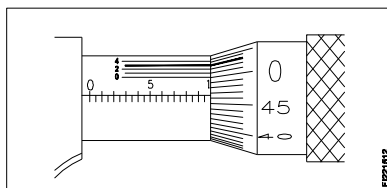
16 What is the name of the part marked as 'X' in blast furnace?



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

Questions: Level 2

- 1 Which part of vernier micrometer is marked with vernier scale graduation?
A Anvil
B Frame
C Thimble
D Barrel
- 2 Which scraper is used to scrape small diameter holes and deburing edges of holes?
A Flat scraper
B Hook scraper
C Triangular scraper
D Bull-nose scraper
- 3 Which scraper is used for scraping large bearing surface?
A Flat scraper
B Hook scraper
C Triangular scraper
D Bull-nose scraper
- 4 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
- 5 Why lime stone serves as flux added to the ore in the blast furnace?
A To form molter slag
B To supply the oxygen
C To bird the carbon in coke
D To increase the melting point of ore
- 6 Calculate the reading of vernier micrometer?



- A 9.923 mm
B 9.963 mm
C 9.563 mm
D 9.763 mm
- 7 Which metal is used for manufacturing of crane hooks chain links.....etc....
A Wrought iron
B Cast iron
C Pig iron
D Steel

- 8 Which non ferrous metal is a soft good resistant to corrosion and good insulator?
A Zinc
B Copper
C Lead
D tin

Questions: Level 3

1 How chipped out scraper can be repaired?

- A** Filing
 - B** Lapping
 - C** Chiseling
 - D** Grinding or honing
-

2 Why agricultural equipment is made up of wrought iron?

- A** Low cost
 - B** Heavy weight
 - C** Wear resistant
 - D** Corrosion resistant
-

3 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
-

Module 8 : Non Ferrous Metals - Key paper

Questions: Level 1

SL.No	Key
1	D
2	C
3	C
4	C
5	C
6	D
7	D
8	C
9	A
10	A
11	C
12	C
13	A
14	A
15	B
16	A

Questions: Level 2

SL.No	Key
1	D
2	C
3	D
4	A
5	A
6	B
7	A
8	C

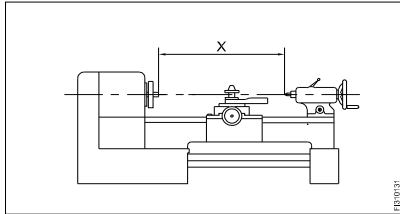
Question: Level 3

SL.No	Key
1	D
2	D
3	B

Fitter - Block 1 - Module 9 : Turning

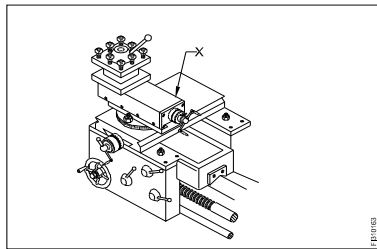
Questions: Level 1

- 1 What is the lathe specification marked as 'X'?



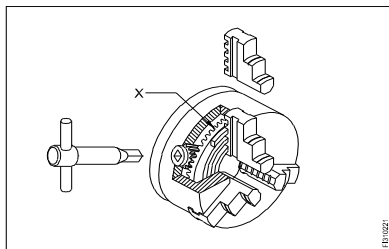
- A Length of the bed
- B Centre height of lathe
- C Length between centre
- D Diameter of work (Swing)

- 2 What is the name of the part marked as '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 as 'x'?

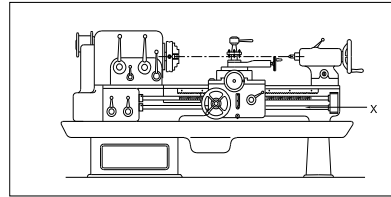


- A Body
- B Back plate
- C External jaw
- D Crown wheel

- 4 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

- 5 What is the name of the part marked as 'X'?

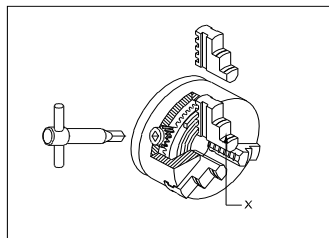


- A Bed
- B Tail stock
- C Feed shaft
- D Lead screw

- 6 What is the maximum swivel angle of the compound rest in the lathe machine?

- A 90°
- B 180°
- C 220°
- D 360°

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

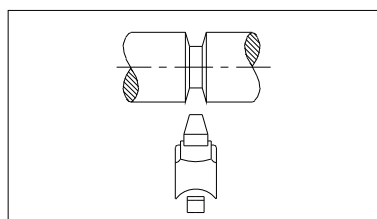


- A Body
- B Back plate
- C External jaw
- D Internal jaw

- 8 Which tool materials are manufactured by powder metallurgy technique?

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

- 9 What is the type of operation is carried out?



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

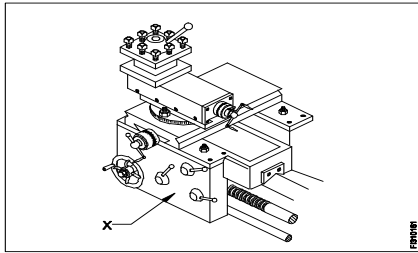
10 What is the formula to calculate the turning time?

- 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 $\frac{f \times n}{i \times h}$

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

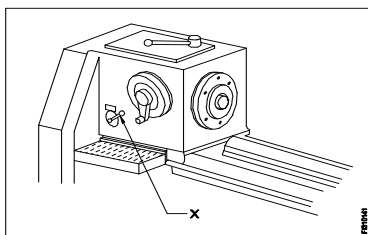
- A 2
- B 3
- C 5
- D 4

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



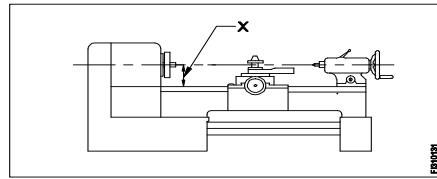
- A Apron
- B Saddle
- C Gross slide
- D Compound rest

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



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

14 What is the specification of lathe marked as 'X'?



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

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

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

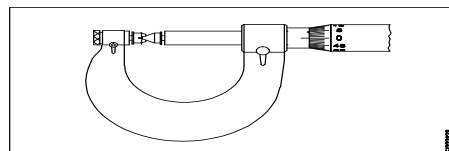
16 What is the name of portion between root and crest of the thread?

- A Root
- B Flank
- C Depth
- D Thread angle

17 Which dimension is measured by using screw thread micrometer?

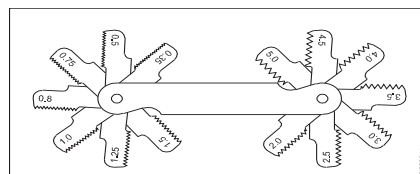
- A Pitch of screw thread
- B Minor dia of screw thread
- C Major dia of screw thread
- D Effective dia of screw thread

18 What is the name of instrument?



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

19 What is the name of gauge?

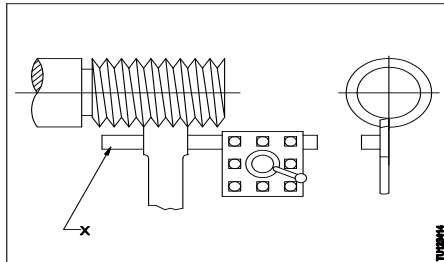


- A Ring gauge
- B Screw pitch gauge
- C Feeler gauge
- D Radius gauge

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

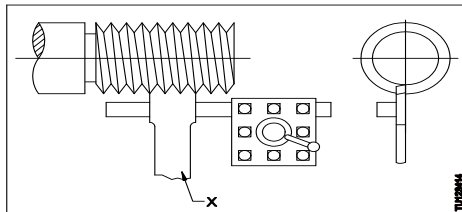
- A M1 to M6
- B M1 to M12
- C M1 to M30
- D M1 to M32

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



- A Tool post
- B Chaser
- C Work piece
- D Chasing rest

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



- A Tool post
- B Chaser
- C Work piece
- D Chasing rest

Questions: 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 hold
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 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
-
- 7 Which is the vertical distance from crest to the root?
A Lead
B Flank
C Pitch
D Depth
-

- 8 Calculate the blank size for external threading M16 x 2.0.
A 14.0 mm
B 15.8 mm
C 16.0 mm
D 15.6 mm
-
- 9 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
-
- 10 Which form of threads are used in the places of sliding forces act in one direction?
A Vee thread
B Square thread
C Trapezoidal thread
D Saw-tooth thread
-
- 11 Which gauge is used to set the tool perpendicular to the work piece in lathe?
A Centre gauge
B Drill gauge
C Screw pitch gauge
D Radius gauge
-
- 12 Which form of thread used in railway carriage coupling?
A Worm thread
B Knuckle thread
C Buttress thread
D 'V' thread
-
- 13 What is the shape of thread cut in screw shaft of 4 jaw chuck?
A 'V' thread
B Acme thread
C Square
D Buttress thread
-
- 14 Which material is used to make the jaws of chuck?
A High speed steel
B High carbon steel
C Medium carbon steel
D Stainless steel
-
- 15 Which part of lathe provides cross movement for the tool?
A Compound rest
B Top slide
C Cross slide
D Apron
-

16 What is the use of set screw in tail stock?

- A** To offset the tailstock
- B** To lock the spindle
- C** To thin on bed
- D** To advance the spindle

17 What is the use of front clearance angle in lathe tool?

- A** Formational chips
- B** Increases the performance
- C** Avoid rubbing action
- D** For good appearance

18 What is the disadvantage of insert tool bits with holder?

- A** Good rigidity
 - B** Poor rigidity
 - C** Good surface finish
 - D** Rough surface
-

Questions: 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
-
- 3 Which property of tool material maintains its cutting efficiency even at increased temperature?
A Cold hardness
B Toughness
C Red hardness
D Brittleness
-
- 4 Which property of tool material breakage due to sudden load that result during metal cutting?
A Toughness
B Red hardness
C Cold hardness
D Brittleness
-
- 5 What will be the defect if clearance angle is ground more?
A More rubbing
B Strong cutting edge
C More tool life
D Weaken the cutting edge
-
- 6 Which factor is reduce the tool life?
A Cutting speed
B Feed
C RPM
D Subject the job
-
- 7 Which defected may occur tool is not rigidity clampid while facing?
A Concave lens
B Rip left out
C Convex lens
D Correct face
-

-
- 8 Which angle of the tool prevents from getting jamed in the groove and causes breakage?
A Side rake angle
B Side relief angle
C Side clearance angle
D Front clearance angle
-

Module 9 : Turning - Key paper

Questions: Level 1

SL.No	Key
1	C
2	B
3	D
4	C
5	C
6	D
7	C
8	A
9	B
10	C
11	B
12	A
13	D
14	B
15	D
16	B
17	D
18	D
19	B
20	C
21	D
22	B

Questions: Level 2

SL.No	Key
1	A
2	D
3	D
4	B
5	A
6	A
7	D
8	B
9	C
10	D
11	A
12	B
13	C
14	B
15	C
16	A
17	C
18	B

Question: Level 3

SL.No	Key
1	B
2	C
3	C
4	A
5	D
6	A
7	C
8	B

Fitter - Block 1 - Module 10 : Maintenance

Questions: Level 1

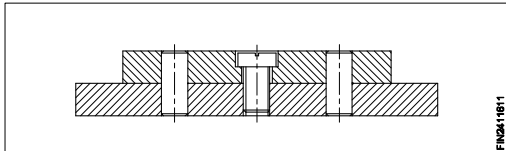
1 Which chart is used to record the skill of the operator in practice?

- A Testing chart
- B Leveling chart
- C Geometric chart
- D Performance chart

2 What is the high level formula for the lean manufacturing OEE?

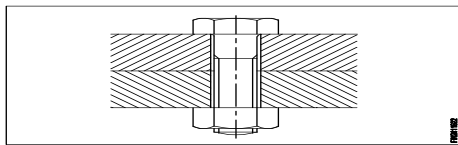
- A Availability x Quantity x Quality
- B Availability x Productivity x Quality
- C Product output x Quality x Availability
- D Product output x Quantity x Quality

3 What is the method of assembly technique?



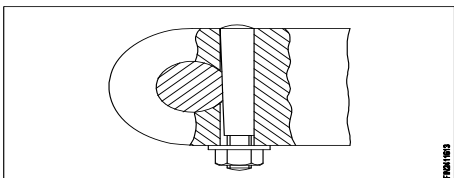
- A Dowelling
- B Pinning
- C Peening
- D Staking

4 What is the type of bolt?



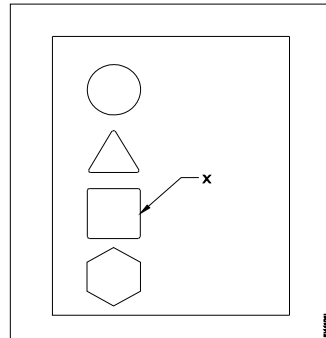
- A Bolt with clearance hole
- B Body fit bolt
- C Anti-fatigue bolt
- D 'T' bolt

5 What is the type of pin in assembly technique?



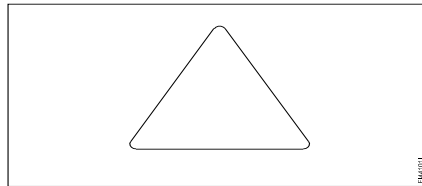
- A Taper pin
- B Split pin
- C Cotter pin
- D Spring pin

6 What is the symbol marked as 'x' in lubrication schedule?



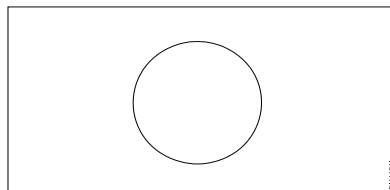
- A Daily
- B Weekly
- C Monthly
- D Once in six month

7 What is the frequency of maintenance symbol?



- A Daily
- B Weekly
- C Monthly
- D Frequently

8 What is the frequency of maintenance symbol?



- A Daily
- B Weekly
- C Monthly
- D Once in six month

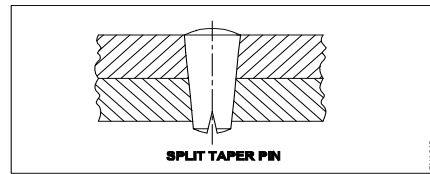
9 What is the flash point of general purpose machinery oil?

- A 160°C
- B 196°C
- C 210°C
- D 204°C

Questions: Level 2

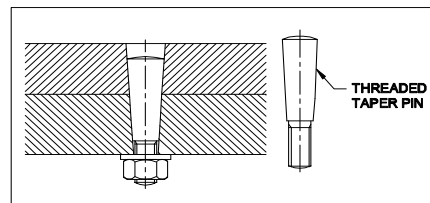
- 1 What is the use of dowel in assembly technique?
- A Accurate positioning of two or more parts
 - B Securing components together
 - C Eliminate the need for drilling
 - D Increase the efficiency of fit
-
- 2 Which maintenance record mention the date of commissioning of machine?
- A Inspection check 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
-

- 7 What the purpose of split provided in the split taper pin?



- A easy to identify the small end.
- B to get spring action for locking.
- C to ensure a more positive locking
- D easy to remove the pin while dismantle

- 8 What is the purpose of using threaded taper pin?



- A Easy to assembling.
- B Easy to dismantling.
- C Locking and prevent loosening due to vibration
- D To reduce damage while assembling and dismantling.

- 9 Which is not disturbed while using taper pin in assembly?

- A motion
- B work progress
- C location
- D production time

- 10 What the reason the antifatigue bolts are used in connecting rod big ends in engine assembly.

- A To withstand the shock of the assembly during motion
 - B To take the loads when the assembly is subjected to alternating load conditions.
 - C To have firm grip during movement of the assembly
 - D To avoid loosening of parts of the assembly
-

Module 10 : Maintenance - Key paper

Questions: Level 1

SL.No	Key
1	D
2	B
3	A
4	A
5	C
6	C
7	B
8	A
9	D

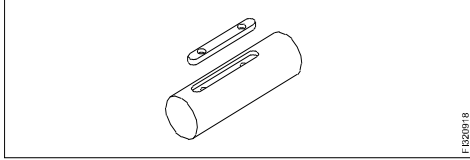
Questions: Level 2

SL.No	Key
1	A
2	B
3	B
4	B
5	C
6	C
7	C
8	C
9	C
10	B

Fitter - Block 2 - Module 1 : Screws

Questions: Level 1

1 What is the name of the key?

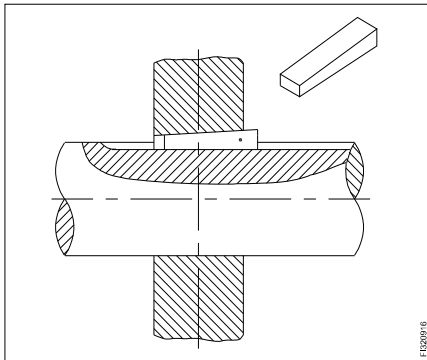


- A Sunk key
- B Feather key
- C Flat saddle key
- D Hollow saddle key

2 What is the ratio of key way taper?

- A 1:19
- B 1:20
- C 1:50
- D 0.100

3 What is the name of key?



- A Taper sunk key
- B Flat saddle key
- C Parallel sunk key
- D Hollow saddle key

4 Which key has rectangular cross section is fit into keyway cut on both shaft and hub?

- A Sunk key
- B Feather key
- C Flat saddle key
- D Hollow saddle key

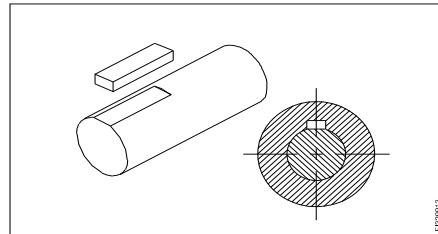
5 Which key is useful for fitting on tapered shafts?

- A Feather key
- B Gib head key
- C Woodruff key
- D Flat saddle key

6 Where the circular taper key is used?

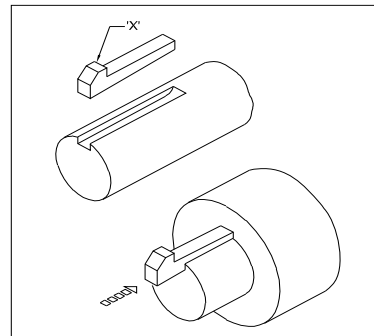
- A Light duty transmission
- B Heavy duty transmission
- C Low speed requirements
- D High speed requirements

7 What is the name of the key?



- A Flat saddle key
- B Taper sunk key
- C Parallel sunk key
- D Hollow saddle key

8 What is the name of the key?



- A Sunk key
- B Feather key
- C Gib head key
- D Wood ruff key

9 Which type of key used if the hub or pulley has to axially slide on the shaft to some distance?

- A Feather key
- B Flat saddle key
- C Circular taper key
- D Hollow saddle key

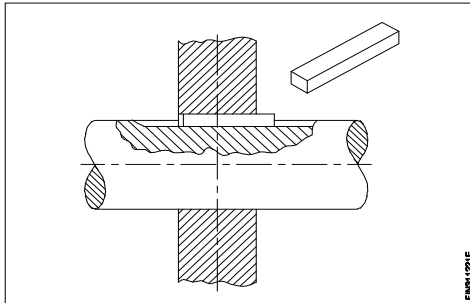
10 Which type of key is used for transmitting unidirectional torque?

- A Flat saddle key
- B Tapper sunk key
- C Woodruff key
- D Feather key\

11 Which type of key has one face curvature to match shaft surface?

- A Sunk key
- B Flat saddle key
- C Circular taper key
- D Hollow saddle key

12 What is the name of the key?



- A Parallel sunk key
- B Gib head key
- C Wood ruff key
- D Tapper sunk key

Questions: Level 2

- 1** Why slots are provided in the slotted castle nuts?
A For easy removal and fitment
B To fix split pins
C For good appearance
D Reduce the weight of nut
-
- 2** What is the purpose of key?
A To transmit torque
B Assembly purpose
C Lock the assembly part
D Permit clearance between mating part
-
- 3** Where the wing nuts are used?
A In coach building work
B Heavy duty assembly work
C At frequent fixing and removal
D Provide decorative appearance
-
- 4** What type of nuts are used in coach building work?
A Square nut
B T-nuts
C Wing nuts
D Cap nuts
-
- 5** What is the name of nut having top part in cylindrical shape and bottom part in hexagonal shape?
A Slotted nut
B T – Nuts
C Cap nuts
D Castle nuts
-
- 6** Why square head screws are provided with collar?
A Protect work surface
B Raise the head width
C Provide leak proof joint
D Provide access for tools
-
- 7** Which type of machine screw used in heavy duty assembly work?
A Pan head screw
B Cheese head screw
C Round head screw
D Hexagon head screws
-

- 8** Which type of machine screw is used in light assembly work?
A Hexagon head screw
B Cheese head screw
C Hexagon socket head cap screws
D Square head counter sink head screws
-
- 9** Which key is used for transmitting light torque?
A Saddle key
B Woodruff key
C Jib head key
D Feather key
-
- 10** Which key is used for very high torque of impact type to transmit in both direction of rotation?
A Round key
B Daddle key
C Woodruff key
D Tangential key
-

Questions: Level 3

- 1** What is the cause for damage of screws frequently?
- A** Screws are assembled in low level applications
 - B** Screws are manufactured in lower property classes
 - C** Cost of the screw is too high
 - D** Screw are fastended proper fit
-
- 2** What will be the effect, if clamping force is too high in assemmbly?
- A** Fasteners may loose due to vibrations
 - B** Fasteners may fail in assembly
 - C** Fasteners may permanently stretch
 - D** Fasteners may be get good assembly
-
- 3** What will be the result If choose improper fastener in assembly?
- A** Lead to accident
 - B** Cost will be less
 - C** Good quality
 - D** Production increase
-
- 4** What will be effect if the clamping force is too low in assembly?
- A** Fasteners may permanently stretch
 - B** Fasteners may be get good assembly
 - C** Components can be replaced easily
 - D** Fasteners and work may lead to loose due to vibrations
-

Module 1 : Screws - Key paper

Questions: Level 1

SL.No	Key
1	B
2	D
3	A
4	A
5	C
6	A
7	A
8	C
9	A
10	D
11	D
12	A

Questions: Level 2

SL.No	Key
1	B
2	A
3	C
4	A
5	D
6	A
7	D
8	B
9	B
10	D

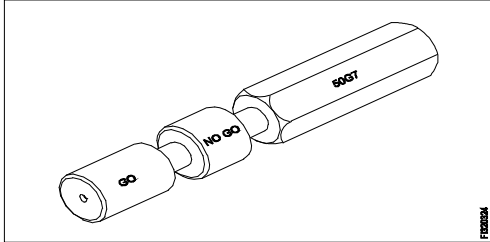
Question: Level 3

SL.No	Key
1	B
2	C
3	A
4	D

Fitter - Block 2 - Module 2 : Template and Gauges

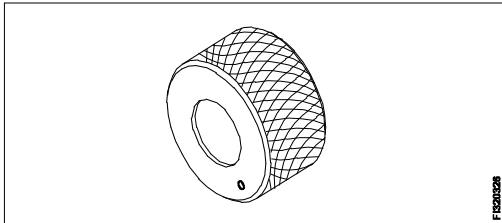
Questions: Level 1

1 What is the name of limit gauge??



- A Plain ring gauge
- B Taper plug gauge
- C Progressive plug gauge
- D Double ended plug gauge

2 What is the name of the gauge?

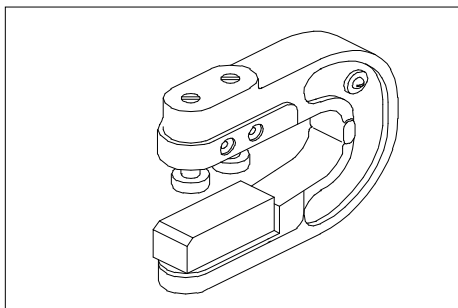


- A Ring gauge
- B Plug gauge
- C Taper ring gauge
- D Taper plug gauge

3 Which material is used to clean the slip gauge?

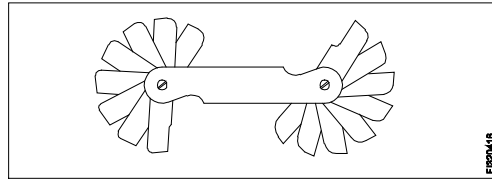
- A Wax
- B Kerosene
- C Soluble oil
- D Carbon tetra chloride

4 What is the name of the gauge?



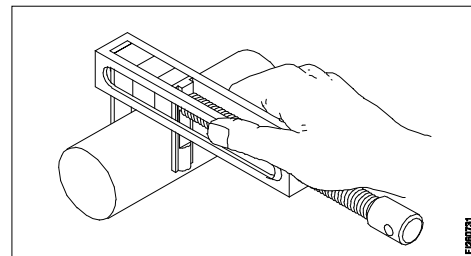
- A Plain snap gauge
- B Thread snap gauge
- C Thread pitch gauge
- D Adjustable snap gauge

5 What is the name of the gauge?



- A Pitch gauge
- B Angle gauge
- C Feeler gauge
- D Radius gauge

6 What is the instrument used in measuring external diameter?



- A Vernier caliper
- B Outside caliper
- C Parallel leg caliper
- D Pair of special jaws by using slip gauge

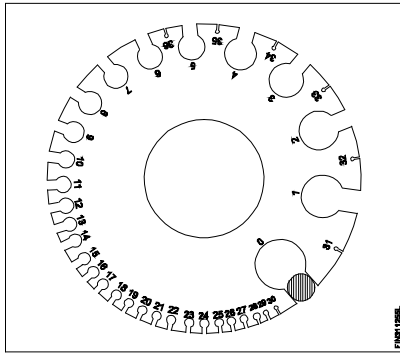
7 How many set of feeler gauges are available?

- A 2 set
- B 4 set
- C 5 set
- D 6 set

8 Which device is used to check the workpiece to confirm the shape?

- A Profile gauge
- B Snap gauge
- C Caliper gauge
- D Progressive gauge

9 What is the name of gauge?



- A Drill gauge
- B Centre gauge
- C Profile gauge
- D Standard wire gauge

10 Which gauge is used to check the outside diameter?

- A Plug gauge
- B Plain ring gauge
- C Taper ring gauge
- D Progressive plug gauge

11 Which protective coat is applied on the surface of slip gauge against rust??

- A C.T.C
- B Grease
- C Lubricant oil
- D Petroleum jelly

12 What material is used to make sine bar?

- A Invar steel
- B High speed steel
- C High carbon steel
- D Stabilized chromium steel

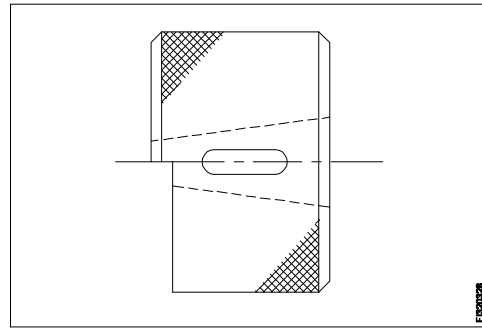
13 How the length of sine bar is specified?

- A Distance between outer point of roller
- B Distance between inner point of roller
- C Distance between centre points of rollers
- D Distance between the edges of sine bar

14 Which material is used to make slip gauge block?

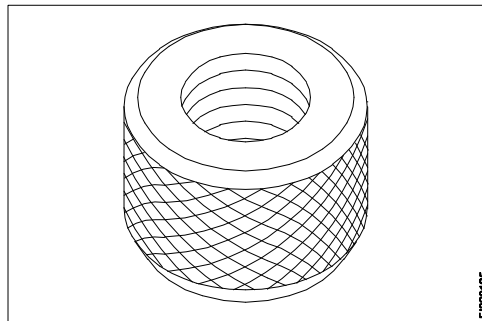
- A Tool steel
- B Low grade steel
- C High carbon steel
- D High grade steel

15 What is the name of the gauge?



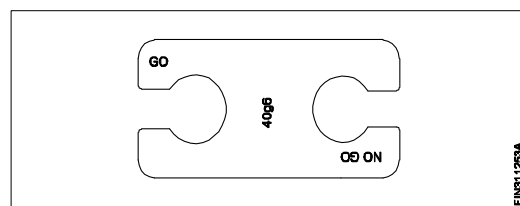
- A Ring gauge
- B Snap gauge
- C Taper ring gauge
- D Internal thread gauge

16 What is the name of gauge?



- A Screw thread plug gauge
- B Screw thread ring gauge
- C Caliper gauge
- D Ring gauge

17 What is the name of gauge?



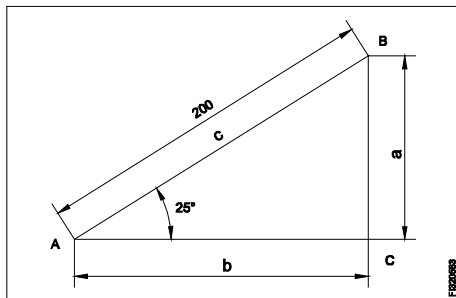
- A Taper gauge
- B Snap gauge
- C Progressive plug gauge
- D Double end plug gauge

Questions: Level 2

- 1 Which gauge is used to check the gap between the mating parts?
- A Slip gauge
 - B Plug gauge
 - C Feeler gauge
 - D Radius gauge
-
- 2 Which gauge is used to check the accuracy of an external thread?
- A Snap gauge
 - B Thread ring gauge
 - C Thread plug gauge
 - D Screw pitch gauge
-
- 3 What is the purpose of feeler gauge?
- A Check the depth of drilled hole
 - B Check the pitch of screw thread
 - C Check the radius of workpiece
 - D Check the gap between the mating parts
-
- 4 What is the act of joining the slip gauges together for building up sizes?
- A Glazing
 - B Pinning
 - C Loading
 - D Wringing
-
- 5 Which grade slip gauge is used for precision tool room applications?
- A Grade 00
 - B Grade 0
 - C Grade I
 - D Grade II
-
- 6 What is the purpose of taper plug gauges?
- A Check the hole with perfect fit
 - B Check the inside threaded dia
 - C Check tapered hole with perfect fit
 - D Check the tapered accuracy of outside dia
-
- 7 What is the thickness range of BIS set of feeler gauge?
- A 0.01 mm to 1 mm
 - B 0.02 mm to 1 mm
 - C 0.03 mm to 1 mm
 - D 0.04 mm to 1 mm
-
- 8 What is the calibration grade of slip gauges?
- A Grade 0
 - B Grade 00
 - C Grade I
 - D Grade II
-

Questions: Level 3

- 1 Find out the height of slip gauge 'a'?($\sin 25^\circ = 0.4226$)?



- A 84.50 mm
B 84.52 mm
C 84.51 mm
D 85.20 mm
-
- 2 What is the material of screw pitch gauge blades?
A Mild steel
B Cast iron
C Spring steel
D Medium carbon steel
-
- 3 Which of the following is used to measure the size of a wire and thickness of sheet?
A Screw pitch gauge
B Feeler gauge
C Radius gauge
D Standard Wire Gauge (SWG)
-
- 4 What is the height of slip gauges for an angle of 30° using a sine bar of 200 mm long?
A 84.52
B 100
C 114.72
D 128.56

Module 2 : Template and Gauges - Key paper

Questions: Level 1

SL.No	Key
1	C
2	A
3	D
4	D
5	D
6	D
7	B
8	A
9	D
10	B
11	D
12	D
13	C
14	D
15	C
16	B
17	B

Questions: Level 2

SL.No	Key
1	C
2	B
3	D
4	D
5	C
6	C
7	B
8	B

Question: Level 3

SL.No	Key
1	B
2	C
3	D
4	B

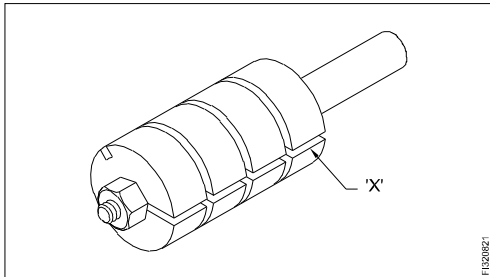
Fitter - Block 2 - Module 3 : Lapping and Honing

Questions: Level 1

- 1 Which is used to clean the lapping plate after charging?
- A Oil
 - B Kerosene
 - C Coolant oil
 - D Petroleum jelly

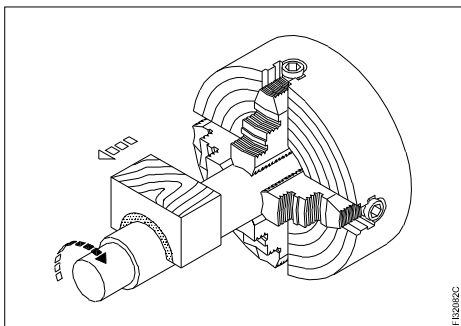
- 2 Which abrasive is used to lapping soft steel and nonferrous metals?
- A Diamond
 - B Boron carbide
 - C Silicon carbide
 - D Aluminium oxide

- 2 What is the name of the part marked 'x' in lapping tool?



- A Slit
- B Bush
- C Sleeve
- D Groove

- 4 What is the name of operation?



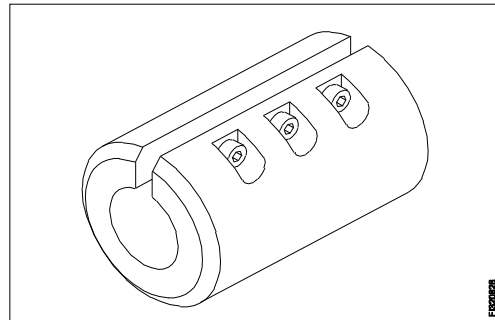
- A Internal ring lapping
- B External ring lapping
- C Lapping internal cylinder
- D Charging cylindrical laps

- 5 What type of abrasives are used in honing the cast iron and non-ferrous materials?
- A Diamond
 - B Boron carbide
 - C Silicon carbide
 - D Aluminium oxide

- 6 Which material is used to make small diameter laps?
- A Cast iron
 - B Aluminium
 - C Bronze or zinc
 - D Copper or brass

- 7 What is lapping?
- A Filing operation
 - B Grinding operation
 - C Chiseling operation
 - D Precision finishing operation

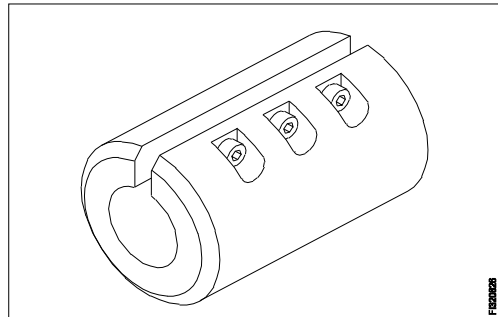
- 8 What is the name of the lap tool?



- A Split bush lap
- B Adjustable ring lap
- C Adjustable solid lap
- D Charging cylindrical lap

Questions: Level 2

- 1 Which finishing process have a high degree of dimensional accuracy?
A Filing
B Turning
C Grinding
D Lapping
-
- 2 What is the purpose of slit provided in the lapping tool?
A For clearance
B For expansion
C To retain abrasive
D To adjust the sleeve
-
- 3 Why manual stroking is preferred for large quantities in honing operation?
A To reduce cost
B To reduce time
C To keep close tolerance
D To reduce maintenance cost
-
- 4 Which operation the fine abrasive particles are used?
A Filing
B Lapping
C Scraping
D Polishing
-
- 5 Which finishing operation, the tool rotate and reciprocate simultaneously?
A Drilling
B Honing
C Lapping
D Grinding
-
- 6 What is the finishing process carried out with abrasive sticks to correct the profile of cylindrical surfaces?
A Lapping
B Honing
C Grinding
D Filing
-
- 7 Which type of abrasive material used for lapping hardened steel and heavy stock removal?
A Silicon carbide
B Aluminium oxide
C Boron carbide
D Diamond
-
- 8 What is abrasive used for lapping soft steels and non-ferrous metals?
A Silicon carbide
B Aluminium oxide
C Boron carbide
D Fused alumina
-
- 9 Which abrasive is used for lapping dies and gauges?
A Boron carbide
B Silicon carbide
C Diamond
D Aluminium oxide
-
- 10 Which is the hardest of all abrasive material and used for lapping tungsten carbide?
A Silicon carbide
B Boron carbide
C Diamond
D Aluminium oxide
-
- 11 What is the abrasive used for lapping accurately finishing very small holes?
A Silicon carbide
B Diamond
C Boron carbide
D Aluminium oxide
-
- 12 What is the purpose of lapping tool?



- A Lapping tool for external surface
B Lapping tool for internal surface
C Lapping tool for external cylindrical surface
D Lapping tool for internal cylindrical surface
-

Questions: Level 3

- 1 Why grooves are provided on the surface of the lapping plate?
- A To allow expansion
 - B To provide clearance
 - C To retain the abrasive
 - D To permit minor adjustment
-
- 2 Why slots are provided in the adjustable ring lap?
- A For lubrication
 - B Permit clearance
 - C To retain lapping compound
 - D Permit feeding of lapping compound
-
- 3 What is the cause if the lap is harder than the workpiece?
- A Workpiece will cut the lap
 - B Accuracy can't be obtained
 - C Lap will cut the workpiece
 - D Lapping operation leaves high spots
-
- 4 Why holes provided in ring type lap?
- A Lubrication
 - B Removal of heat
 - C Hold lap compound
 - D Increase the efficiency
-

Module 3 : Lapping and Honing- Key paper

Questions: Level 1

SL.No	Key
1	B
2	D
3	A
4	D
5	C
6	D
7	D
8	A

Questions: Level 2

SL.No	Key
1	D
2	B
3	C
4	B
5	B
6	B
7	A
8	D
9	A
10	C
11	B
12	C

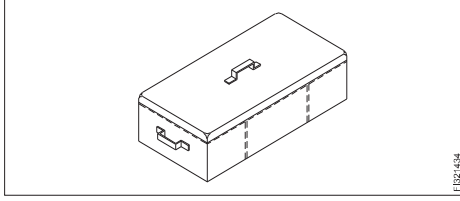
Question: Level 3

SL.No	Key
1	C
2	C
3	A
4	C

Fitter - Block 2 - Module 4 : Tapers and Heat treatment

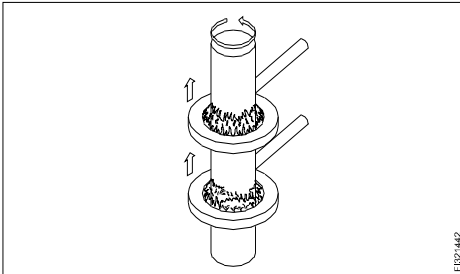
Questions: Level 1

1 What is the method of surface hardening?



- A Nitriding
- B Pack - carburising
- C Flame hardening
- D Induction hardening

2 What is the method of surface hardening?



- A Nitriding
- B Case hardening
- C Flame hardening
- D Induction hardening

3 What is the name of the process if the steel is heated upto critical temperature and cooling it very slowly in furnace?

- A Annealing
- B Hardening
- C Tempering
- D Normalising

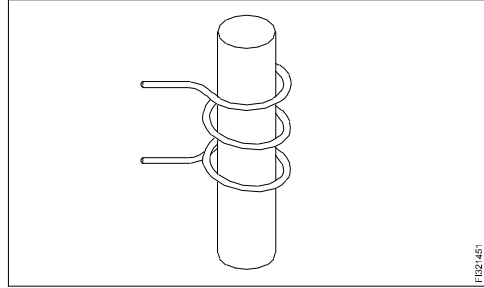
4 What is the process in steel to relieve strain and stress to eliminate hardness and improve the machineability?

- A Tempering
- B Annealing
- C Hardening
- D Normalising

5 Which method of heat treatment will improve machinability and ductility in the job?

- A Annealing
- B Hardening
- C Tempering
- D Normalizing

6 What is the method of surface hardening?



- A Nitriding
- B Case hardening
- C Flame hardening
- D Induction hardening

Questions: Level 2

- 1 What is the name of the heat treatment process for reheating the hardened steel to a temperature below 400°C followed by cooling?
- A Annealing
B Hardening
C Tempering
D Normalising
-
- 2 Why the tempering process carried out in steel?
- A To add cutting ability
B To relive strain and stress
C To refine the grain structure
D To regulate the hardness and toughness
-
- 3 What is the purpose of annealing in steel?
- A To add cutting ability
B To increase wear resistance
C To relieve the internal stress
D To refine the grain structure of the steel
-
- 4 Which method of surface hardening, the surface remains free from scales?
- A Nitriding
B Case hardening
C Flame hardening
D Induction hardening
-
- 5 What is the purpose of hardening?
- A Refine the structure
B Increase toughness
C Increase cutting ability
D Relieve stress and strain
-
- 6 What is the disadvantage of flame hardening in the heat treatment process?
- A More distortion
B Long hardening time
C Small depth of hardening
D Not suitable for small workpieces
-
- 7 Which is the fastest quenching material used in heat treatment?
- A Oil
B Air
C Water
D Brine solution
-

- 8 What is the name of process used to remove brittleness, induce toughness and shock resistance?
- A Hardening
B Annealing
C Tempering
D Normalising
-
- 9 What is the purpose of normalising?
- A Add cutting ability
B Develop high hardness
C Increase wear resistance
D Remove stress and strain
-
- 10 Which heat treatment process increases the wear resistance of steel?
- A Annealing
B Tempering
C Hardening
D Normalising
-
- 11 What is the temperature that change of structure to austenite starts at 723° in heat treatment process?
- A Lower critical temperature
B Upper critical temperature
C Melting temperature
D Critical temperature
-
- 12 What is the heat treatment process if the steel heated above critical range and soaking cooling it very slowly within the furnace?
- A Hardening
B Tempering
C Annealing
D Normalising
-
- 13 What is the process to add cutting ability and wear resistance on steel?
- A Tempering
B Annealing
C Normalising
D Hardening
-
- 14 What is the process to remove extreme brittleness and induce toughness and shock resistance in steel?
- A Tempering
B Annealing
C Normalising
D Hardening
-

-
- 15** What is the process to refine the grain structure of the steel?
- A** Tempering
 - B** Annealing
 - C** Normalising
 - D** Hardening
-
- 16** What is the process of steel being heated to required temperature and held in the same temperature for a period of time?
- A** Soaking
 - B** Heating
 - C** Quenching
 - D** Hardening
-
- 17** What is the purpose of brine solution, water, oil and air used in heat treatment process?
- A** Soaking
 - B** Quenching
 - C** Heating
 - D** Spraying
-
- 18** What quenching media is used for special alloy steel?
- A** Brine solution
 - B** Water
 - C** Oil
 - D** Air
-
- 19** What is the process of removing the internal defects or to refine the structure of steel components?
- A** Annealing of steel
 - B** Normalising steel
 - C** Hardened steel
 - D** Tempering
-

Questions: Level 3

- 1 How the mechanical properties of steel like strength, toughness, ductility are affected?
- A By tempering
 - B By hardening
 - C By annealing
 - D By normalising
-
- 2 What will be result of structure during heat treatment if the hot steel is cooled rapidly?
- A Austenite
 - B Ferrite
 - C Martensite
 - D Cementite
-
- 3 What will be the effect on it, if cutting tool is unhardened conditions/state in machining?
- A It improves the property of materials
 - B It does not absorb shock resistance
 - C It will not cut the metal
 - D It cuts the metal
-
- 4 What is the reason the barium carbonate is added in pack carburising process?
- A To speed up the process
 - B No carbon gas can escape
 - C It contains more carbon
 - D It contains less carbon
-

Module 4 : Tapers and Heat treatment - Key paper

Questions: Level 1

SL.No	Key
1	B
2	C
3	A
4	D
5	A
6	D

Questions: Level 2

SL.No	Key
1	C
2	D
3	C
4	D
5	C
6	D
7	D
8	C
9	D
10	C
11	A
12	C
13	D
14	A
15	C
16	A
17	B
18	D
19	B

Question: Level 3

SL.No	Key
1	B
2	C
3	C
4	A

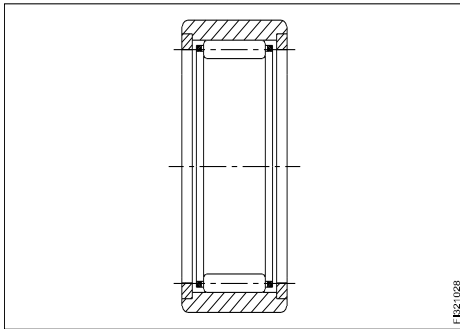
Fitter - Block 2 - Module 5 : Bearings

Questions: Level 1

- 1 Which bearing material has poor thermal conductivity?
A Nylon
B Teflon
C Sintered alloys
D Laminated phenolics

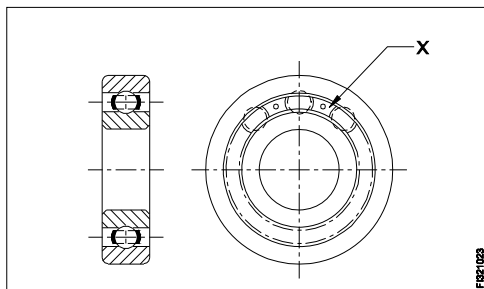
- 2 Which alloying metal bearing can work at higher temperature and higher load carrying capacity?
A Cast iron
B White metal
C Copper lead alloys
D Cadmium based alloy

3 What is the name of the bearing?



- A** Needle bearing
- B** Thrust ball bearing
- C** Taper roller bearing
- D** Angular contact ball bearing

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



- A** Ball case
- B** Inner race
- C** Outer race
- D** Ball separating gauge

5 Which bearing material is used for light loading and low speed application?

- A** Cast iron
- B** Tin bronze
- C** Cadmium based alloy
- D** Copper and lead alloys

6 Which bearing the loading is parallel to the bearing axis?

- A** Split bearing
- B** Plain bearing
- C** Thrust bearing
- D** Radial bearing

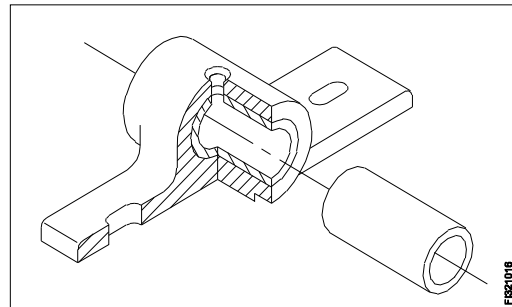
7 Which bearing material is best suited for hard journals?

- A** Sintered alloy
- B** Aluminium alloy
- C** Copper lead alloy
- D** Cadmium based alloy

8 Which bearing material has got low co-efficient of friction and high material cost?

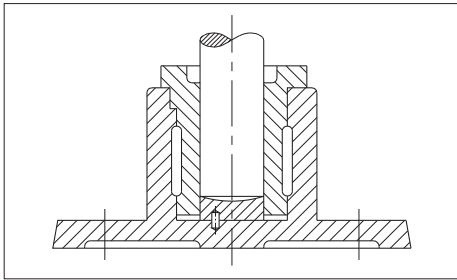
- A** Nylon
- B** Teflon
- C** Thrust ball bearing
- D** Laminated phenolics

9 What is the name of bearing?



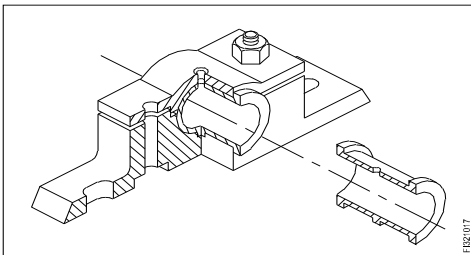
- A** Split bearing
- B** Solid bearing
- C** Thrust bearing
- D** Journal bearing

10 What is the name of bearing?



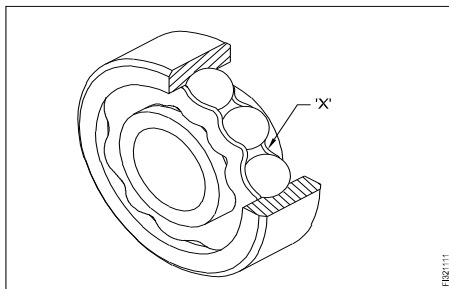
- A Ball bearing
- B Roller bearing
- C Thrust bearing
- D Journal bearing

11 What is the name of bearing?



- A Split bearing
- B Bush bearing
- C Solid bearing
- D Journal bearing

12 What is the name of the part marked as 'X' in the bearing?



- A Out race
- B Ball cage
- C Inner race
- D Rolling elements

Questions: Level 2

- 1 Which bearing material is used in connecting rod and electrical motors?
A White metal
B Sintered alloys
C Aluminium alloy
D Copper lead alloys
-
- 2 What is the purpose of deep groove type of ball races provided in the ball bearing?
A To withstand shock
B To carry journal loads
C To withstand axial thrust
D To withstand radial load
-
- 3 Why the double row roller bearing is used?
A To take axial load
B To take radial load
C To take heavy axial load
D To take heavy radial load
-
- 4 What is the purpose of thrust ball bearing?
A Axial load
B Radial load
C Axial thrust load
D Vertical thrust load
-
- 5 What is the disadvantage of thrust ball bearing?
A Cannot take any radial load
B Cannot take horizontal end thrust
C Cannot take load on both directions
D Cannot take any vertical thrust load
-
- 6 Which type of bearing used for taking high axial thrust load?
A Roller bearing
B Tapered roller bearing
C Self align roller bearing
D Angular contact ball bearing
-
- 7 Which bearing material is used in connecting rod and electrical motors?
A White metal
B Sintered alloy
C Aluminium alloy
D Copper lead alloy
-
- 8 Which type of bearing is used in restricted outside diameter of the bearing?
A Needle bearing
B Thrust ball bearing
C Angular contact ball bearing
D Self aligned ball bearing
-

- 9 Which type of bearing used for very heavy radial load?
A Ball bearing
B Bush bearing
C Needle bearing
D Double row roller bearing
-

Questions: Level 3

- 1** Why the melting point of bearing material should be lower than that of the shaft?
- A** Prevent shaft seizure
 - B** Prevent damage to bearing
 - C** Allow the bearing to run efficiently
 - D** Prevent thermal expansion of shaft
-
- 2** Why deep groove type of ball races provided in the ball bearing?
- A** Withstand shock
 - B** Withstand axial thrust
 - C** Withstand radial load
 - D** Carry journal loads
-
- 3** What will be the result if the bearing is fitted too tight?
- A** Bearing will not take the load
 - B** Bearing will get jammed
 - C** Allow the bearing to run efficiently
 - D** Allow the lubricant to flow freely
-
- 4** What will be the result if the bearing is fitted too loose?
- A** Bearing will get jammed
 - B** Allow the bearing to run efficiently
 - C** Allow the lubricant to flow freely
 - D** Bearing will not take the load
-

Module 5 : Bearings - Key paper

Questions: Level 1

SL.No	Key
1	D
2	D
3	A
4	D
5	A
6	C
7	B
8	B
9	B
10	C
11	A
12	B

Questions: Level 2

SL.No	Key
1	D
2	C
3	D
4	D
5	B
6	B
7	D
8	A
9	D

Question: Level 3

SL.No	Key
1	A
2	B
3	B
4	D

Fitter - Block 2 - Module 6 : Pipe and Pipe fittings

Questions: Level 1

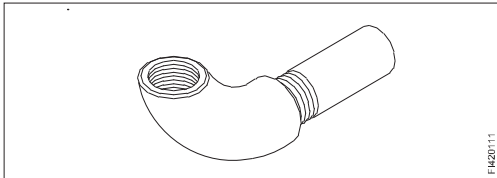
1 What is the angle of deviations provided on elbows and bends in pipe works?

- A 90° and 45°
- B 30° and 60°
- C 20° and 40°
- D 60° and 45°

2 What is the position of eccentric reducers are used in pipe lines?

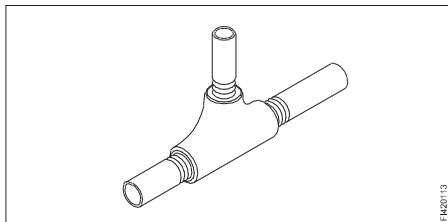
- A Vertical position
- B Angular position
- C Radius position
- D Horizontal position

3 What is the name of the pipe fitting?



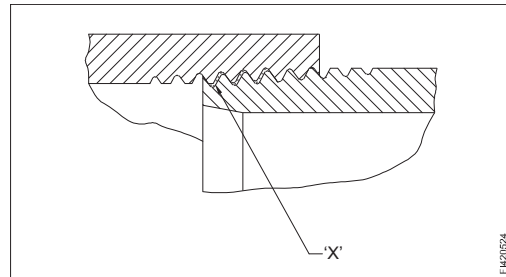
- A 45° elbow
- B Tee joint pipe
- C Short radius elbow
- D Long radius elbow

4 What is the name of the pipe fitting?



- A Tee joint
- B Eccentric reducer
- C Reducer tee joint
- D Concentric reducer

5 What is the name of part marked as 'X' in the pipe joint?



- A Outer pipe
- B Hemp packing
- C Tapered male thread
- D Parallel female thread

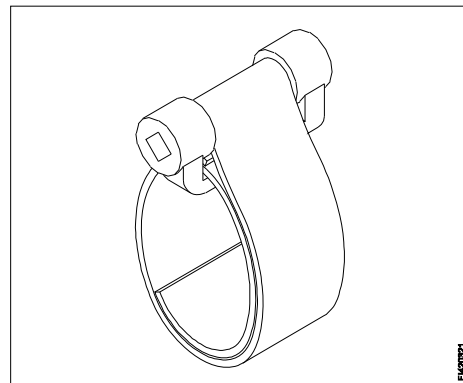
6 Which type of pipe joint take branch at 90°?

- A Coupling
- B Tee branch
- C Eccentric reducer
- D Concentric reducer

7 Which valve is used to permit fluid flow in one direction only?

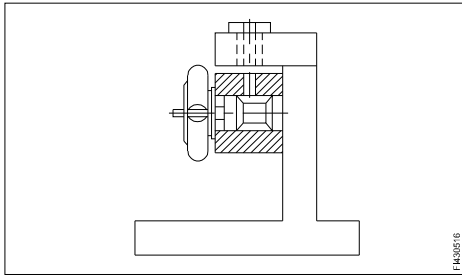
- A Plug-cock
- B Needle valve
- C Non-return valve
- D Pressure regulator valve

8 What is the type of wrench?



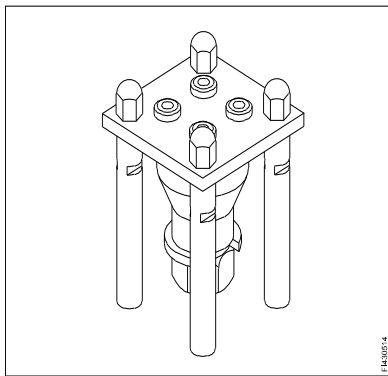
- A Footprint wrench
- B Strap wrench
- C Chain pipe wrench
- D Pipe wrench

9 What is the name of jig?



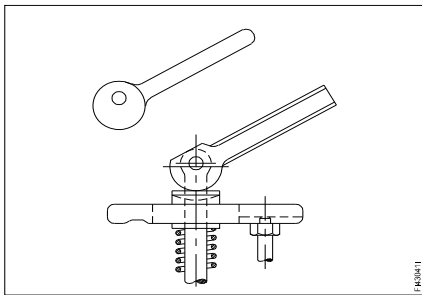
- A Leaf jig
- B Solid jig
- C Table jig
- D Angle plate jig

10 What is the name of jig?



- A Box jig
- B Post jig
- C Turn over jig
- D Sandwich jig

11 What is the name of clamp?

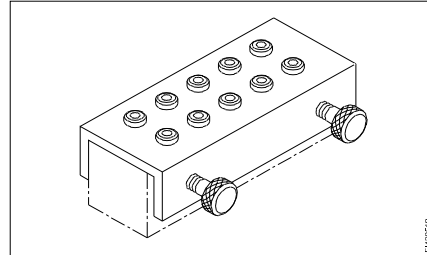


- A Strap clamp
- B Cam clamp
- C Latch clamp
- D Screw clamp

12 Which type of fixture used for machining on evenly spaced surfaces?

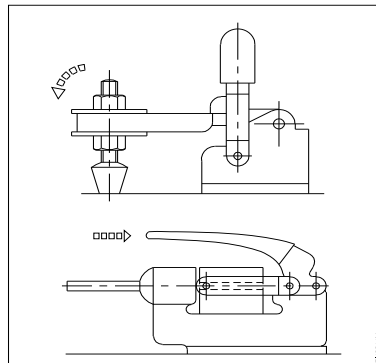
- A Plate fixture
- B Vice jaw fixture
- C Indexing fixture
- D Angle plate fixture

13 What is the name of jig?



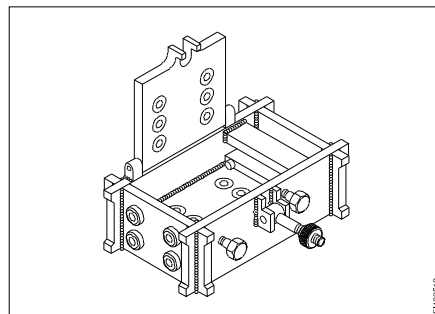
- A Post jig
- B Solid jig
- C Channel jig
- D Trunnion jig

14 What is the name of clamp used in jig?



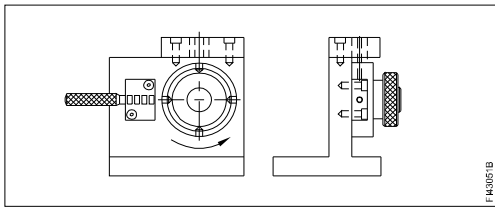
- A Tooth clamp
- B Latch clamp
- C Toggle clamp
- D Wedge clamp

15 What is the name of jig?



- A Box jig
- B Drill jig
- C Post jig
- D Leaf jig

16 What is the type of jig?



- A Post jig
- B Plate jig
- C Indexing jig
- D Angle plate jig

Questions: Level 2

- 1 Which type of bushes is used in jig to perform more than one operation in same location?
- A Slip bush
B Plain bush
C Fixed bush
D Linear bush
-
- 2 What is the purpose of grooves provided in the 'V' blocks?
- A Reduce the weight
B Support the work piece
C Accommodate the clamp
D Allow thermal expansion
-
- 3 Why the balancing weight is provided in the turning fixture?
- A To guide tool
B To balance the tool
C To balance angle plate
D To balance irregular workpiece
-
- 4 What is the purpose of setting blocks used in the fixture?
- A Position the balancing weight
B Position the clamp and locators
C Position the fixture on machine table
D Position the fixture and work related to cutter
-
- 5 Why two or four hold down slots are provided in the base plate of milling fixture?
- A For rigid clamping
B For guiding the tool
C For locating workpiece
D For adjusting the job setting
-
- 6 Which bush is used to provide a hardened hole for renewable bushes?
- A Slip bush
B Plain bush
C Fixed bush
D Linear bush
-
- 7 Which part restrict load of component in jig?
- A Clamp
B Guide plate
C Locating pin
D Press fit bush
-

- 8 What is the purpose of drill bushes provided in the drill jig?
- A To support base plate
B To support drill plate
C To locate and guide cutting tool
D To restrict the movement of job
-
- 9 Which type of jig is used for drilling holes at different position?
- A Post jig
B Solid jig
C Trunnion jig
D Indexing jig
-
- 10 Which device is used to hold, locate and not guide the cutting tool during machining operation?
- A Jig
B Fixture
C 'C' clamp
D Machine vice
-
- 11 Which type of fixture is provided an easy method of holding parts for machining?
- A Turning fixture
B Vice fixture
C Nailing fixture
D Grinding fixture
-
- 12 Why the tenons provided at the bottom of base plate of milling fixture?
- A For guiding the tool
B For clamping purpose
C For balancing workpiece
D For proper location of fixture
-
- 13 How the water flow is stopped from the valve around the stuffing box?
- A Replace the spindle
B Tightening the bonnet
C Tightening the hand wheel
D Packing with asbestos hemp
-
- 14 How pipes are classified?
- A Uses
B Colour
C Shapes
D Material
-
- 15 Which standard pipe fitting is used to close a pipe line have internal thread?
- A Post jig
B Solid jig
C Trunnion jig
D Coupling
-

-
- 16** Which type of wrench is used for more than 50 mm dia meter pipe to tight with heavy gripping?
- A** Strap wrench
 - B** Foot print wrench
 - C** Chain pipe wrench
 - D** Stileson pipe wrench
-
- 17** Where concentric reducer used in pipeline?
- A** Vertical
 - B** Horizontal
 - C** Reduce the pressure
 - D** Drive the flow direction
-
- 18** What is the radius size for long radius elbow?
- A** Equal the bore the pipe
 - B** 1 ½ times bore of the pipe
 - C** Elbow 3 time bore of the pipe
 - D** 2 times bore of the pipe
-
- 19** What is the radius size for the short radius elbow?
- A** 1 ½ time bore of the pipe
 - B** Equal to bore of the pipe
 - C** 3 time bore of the pipe
 - D** 2 time bore of the pipe
-
- 20** Which standard fitting is used for joining pipeline of different diameter?
- A** Plug
 - B** Caps
 - C** Reducer
 - D** Coupling
-
- 21** What type of fitting is used in pipeline to connect two pipes of external threads?
- A** Reducer
 - B** Coupling
 - C** Cap
 - D** Nibble
-

Questions: Level 3

- 1** What is the remedial measure to stop the dripping of water from house hold tap even after firmly closed?
- A** Replace the tap
 - B** Replace washer
 - C** Renew tap spindle
 - D** Tighten stuffing box
-
- 2** What is the remedy if the spindle rotates continuously so that the gate valve is not closed?
- A** Replace the valve
 - B** Tighten the gland nut
 - C** Replace the wornout part
 - D** Renew the gland packing
-
- 3** What is the cause of water dripping from the tap even after closed?
- A** Defective washer
 - B** Spindle thread wornout
 - C** Bend spindle
 - D** Loose valve
-
- 4** What caused loud noise in the tap if turned ON?
- A** Spindle bend
 - B** Spindle thread wornout
 - C** Stuffing box packing dry
 - D** Valve loose on spindle
-
- 5** Which of the following wrench is used for pipes with diameters of 50mm to 150mm for gripping cylindrical or irregular objects?
- A** Pipe wrench
 - B** Strap wrench
 - C** Foot print wrench
 - D** Chain pipe wrench
-
- 6** Which of the following joint helps the pipe line to branch off at 90° the branches may be equal in diameter or there may be one reducing branch?
- A** Elbows
 - B** Tee branch/ Tee joint
 - C** Concentric reducer
 - D** Eccentric reducer
-
- 7** Which of the following fixture is used for machining the part at right angle to the locator?
- A** Plate fixture
 - B** Vice jaw fixture
 - C** Angle plate fixture
 - D** Indexing fixture

-
- 8** Which of the following is used to hold work to be drilled at right angles to their mounting locates?
- A** Latch jig
 - B** Indexing jig
 - C** Sandwich jig
 - D** Angle plate jig
-

Module 6 : Pipe and Pipe fittings - Key paper

Questions: Level 1

SL.No	Key
1	A
2	D
3	A
4	C
5	B
6	B
7	C
8	B
9	D
10	C
11	B
12	C
13	C
14	C
15	A
16	C

Questions: Level 2

SL.No	Key
1	A
2	C
3	D
4	D
5	A
6	D
7	C
8	C
9	C
10	B
11	B
12	D
13	D
14	D
15	A
16	C
17	A
18	B
19	B
20	C
21	B

Question: Level 3

SL.No	Key
1	B
2	C
3	A
4	D
5	D
6	B
7	C
8	D

Fitter - Block 2 - Module 7 : Non Ferrous Metals

Questions: Level 1

1 What is the colour of the aluminium metal?

- A Yellow
- B Redish
- C Whitish grey
- D Silvery white

2 Which ore produces lead metal?

- A Pyrites
- B Bauxite
- C Malchite
- D Galena

3 What is the name of metal alloy of lead, tin, copper and antimony?

- A Bronze
- B Gilding metal
- C Babbitt metal
- D Leaded bronze

4 What is the ratio of copper and zinc in "Muntz metal"?

- A 63:37
- B 60:40
- C 57:43
- D 70:30

5 Which metal extracted from bauxite ore?

- A Zinc
- B Brass
- C Copper
- D Aluminium

6 Which metal is used in the preparation of paint?

- A Zinc
- B Lead
- C Brass
- D Aluminium

7 What is the name of copper ore?

- A Galena
- B Blende
- C Bauxite
- D Malachite

8 Which are the alloys of brass metal?

- A Copper and tin
- B Copper and zinc
- C Copper and lead
- D Copper and nicke

9 What is the name of the metal extract from ore galena?

- A Tin
- B Lead
- C Copper
- D Aluminium

10 Which metal alloys is used to make bearing?

- A Tin
- B Nickel
- C Chromium
- D Bobbit metal

11 Which type of brass sheet is used for deep drawing?

- A Basic brass
- B Navel brass
- C Cartridge brass
- D Standard brass

12 Which type of bronze metal has got excellent antifriction properties?

- A Low tin bronze
- B Leaded bronze
- C Phosphor bronze
- D Leaded gun metal

13 Which ore is extraction of aluminium?

- A Pyrites
- B Galena
- C Blends
- D Bauxite

14 What is the composition of leaded gunmetal of copper, zinc and tin?

- A Copper 90%, lead 5%, tin 5%
- B Copper 94%, lead 4%, tin 2%
- C Copper 88%, zinc 2%, tin 10%
- D Copper 85%, lead 5%, zinc 5%, tin 5%

15 What is the name of alloy consist copper and zinc?

- A Aluminium
- B Gunmetal
- C Brass
- D Bronze

16 What is the percentage composition of lead in lead bronze bearing material?

- A 15%
- B 20%
- C 25%
- D 30%

17 Which metal is basically an alloy of 60% copper and 40% zinc?

- A** Lead
 - B** Brass
 - C** Muntz
 - D** Bronze
-

Questions: Level 2

- 1 What is the percentage of copper in malachite ore?
A 20%
B 30%
C 55%
D 80%
-
- 2 Why copper is extensively used in electrical cables and appliances?
A Ductile metal
B Cheap in cost
C Easy soldering
D Good conductor
-
- 3 Which metal is extracted from cassterite?
A Tin
B Lead
C Copper
D Aluminium
-
- 4 Which metal is used to make head of a soldering iron?
A Bronze
B Lead
C Brass
D Copper
-
- 5 What is the type of visual pipe inspection at 30° angle between the plane of vision and surface?
A Direct visual testing
B Remote visual testing
C Translucent visual testing
D Transparent visual testing
-
- 6 Which type of brass is suitable for most engineering process?
A Cartridge brass
B Standard brass
C Basic brass
D Naval brass
-
- 7 Which non ferrous metal is used for coating on steel to prevent corrosion?
A Tin.
B Copper.
C Zinc
D Lead
-

- 8 Which non ferrous metal is used for as a coating on steel shaft for production of food containets?
A Copper
B Lead.
C Zinc
D Tin
-
- 9 Which non ferrous metal alloys are used as soft solders?
A Lead and copper
B Lead and tin
C Lead and Zinc
D Lead and antimony
-
- 10 What is the property of aluminium?
A Ductile
B Brittle
C Toughness
D Hard
-

Questions: Level 3

- 1 What is the reason to add tin with muntz metal in the pressure of salt water?
- A Prevent corrosion
 - B Forming operation
 - C Making cartridge cases
 - D Used for extrusion
-
- 2 What is the reason the industries are try to implement the Statistical Process Control (SPC)?
- A It may be limited to defect of surface dimensional defects only
 - B Possibility of misinterpretation of customers
 - C It is a powerful collection of problem solving tool
 - D Only large defects identified
-
- 3 What will be the effect on it if quality control fail to solve the problems?
- A Increase in sales
 - B Customers dissatisfied
 - C Reducing the inspection cost
 - D Satisfaction customers
-
- 4 What defect you can identify by visual inspection in pipe and pipe fittings?
- A Only large defects
 - B Surface dimensional defects
 - C Hardness of the pipe
 - D Strength of micro defects
-

Module 7 : Non Ferrous Metals - Key paper

Questions: Level 1

SL.No	Key
1	C
2	D
3	C
4	B
5	D
6	B
7	D
8	B
9	B
10	D
11	C
12	C
13	D
14	D
15	C
16	C
17	C

Questions: Level 2

SL.No	Key
1	C
2	D
3	A
4	D
5	A
6	B
7	C
8	D
9	B
10	A

Questions: Level 3

SL.No	Key
1	A
2	C
3	B
4	A

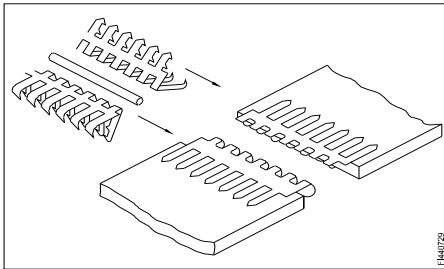
Fitter - Block 2 - Module 8 : Power Transmission

Questions: Level 1

1 Which type of belt drive, the driven shaft will rotate opposites to drive?

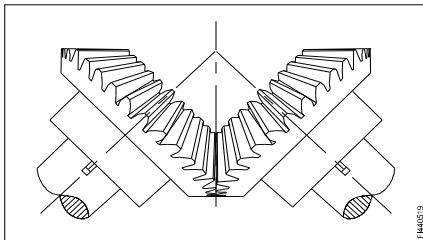
- A Stepped drive
- B Open belt drive
- C Cross belt drive
- D Right angled belt drive

2 What is the name of belt fastener?



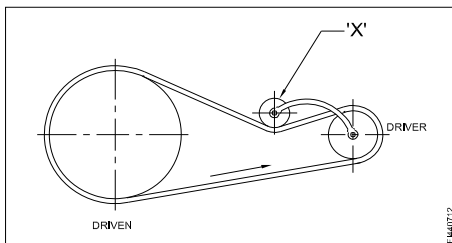
- A Wire type
- B Lagrelle type
- C Alligator type
- D Crescent plate type

3 What is the type of gear?



- A Spurgear
- B Mitre gear
- C Bevel gear
- D Hearing bone gear

4 What is the name of part marked as 'x' in the belt drive?

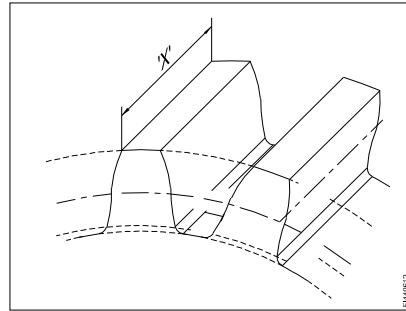


- A Step pulley
- B Driver pulley
- C Driven pulley
- D Jockey pulley

5 Which type of gear drive changes rotary movement to linear movement?

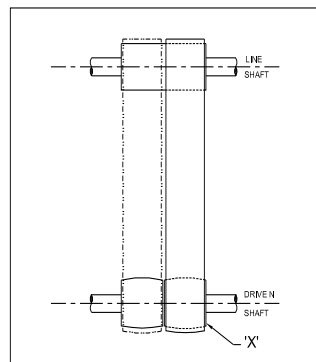
- A Hypoid
- B Herring bone
- C Rack and pinion
- D Helical gear

6 What is the name of the part marked as 'x' in gear?



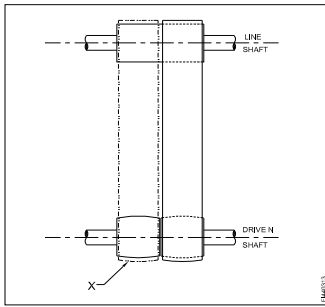
- A Pitch line
- B Dedendum
- C Addendum
- D Face width

7 What is the name of the part marked as 'x' in fast and loose pulley assembly?



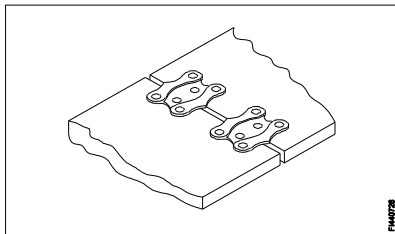
- A Fast pulley
- B Loose pulley
- C Crown pulley
- D Flat drive pulley

8 What is the part marked as 'x' ?



- A Fast pulley
- B Crown pulley
- C Loose pulley
- D Flat drive pulley

9 What is the type of belt fastener?



- A Wire type belt fastener
- B Alligator type belt fastener
- C Jackson type belt fastener
- D Crescent plate belt fastener

10 What is the formula to calculate open belt length if centre distance is X?

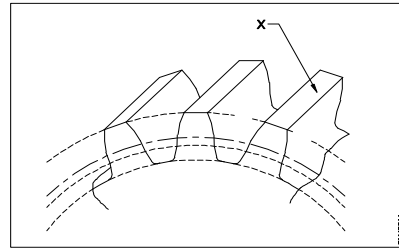
A $L = \frac{D+d}{2} + 3\frac{1}{7} + 2x$

B $L = \frac{D+d}{2} - 3\frac{1}{7} + 2x$

C $L = \frac{D+d}{2} \times 3\frac{1}{7} + 2x$

D $L = \frac{D+L}{2} + 3\frac{1}{7} - 2x$

11 What is element marked as 'X' in gear?

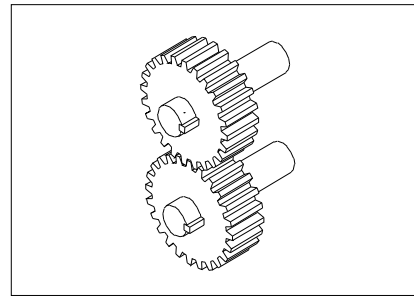


- A Flank
- B Top land
- C Fillet
- D Face

12 Which belt less slip in power transmission?

- A "V" belt
- B Flat belt
- C Link belt
- D Ribbed belt

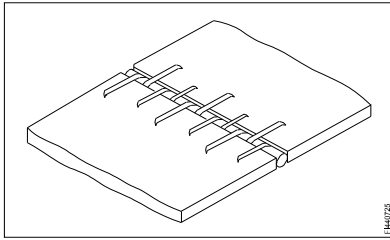
13 What is the name of gear?



- A Spur gear
- B Mitre gear
- C Bevel gear
- D Hypoid gear

Questions: Level 2

1 What is the name of belt fastener?



- A Wire type belt fastener
- B Lagrelle type belt fastener
- C Crescent plate belt fastener
- D Jackson type belt fastener

2 How to adjust the tension of belt between two fixed pulleys?

- A By sliding the pulley
- B By fixing ideal pulley
- C By adjusting the length of belt
- D By adjusting the screw of pulley

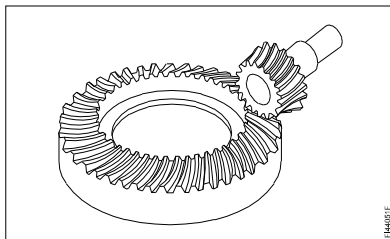
3 Why the face of pulley is "Crowned" in power transmission?

- A Increase the tension
- B Decrease the tension
- C Keep the belt centralised
- D Allow the pulley free rotation

4 How to improve the gripping property of the dried belt?

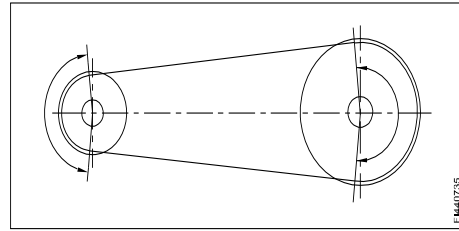
- A Jockey pulley
- B Apply powdered resin
- C Reduce the distance between pulleys
- D Increase the distance between pulleys

5 What is the name of the gear?



- A Mitre gear
- B Bevel gear
- C Hypoid gear
- D Worm shaft and worm gear

6 What happen, if the wrapping angle is greater than 180°?



- A Pulley can drive low load
- B Pulley can drive low speed
- C Pulley can transmit low torque
- D Pulley can transmit high torque

7 Which type of drive used for shortest distance and for large amount of power transmission?

- A Belt drives
- B Gear drives.
- C Rope drives
- D Chain drives

8 Which type of belt length cannot be altered and reused with fastner?

- A 'V' belt
- B Flat belt
- C Link belt
- D Ribbed belt

9 Which type of belt drive is used to obtain different speed ratio?

- A Slip belt drive
- B Stepped drive
- C Open belt drive
- D Cross belt drive

10 What is the length of open belting if diameter of larger pulley is 50cm, diameter of smaller pulley is 20cm and centre distance between the pulley is 200cm?

- A 410 cm
- B 460 cm
- C 510 cm
- D 560 cm

Questions: Level 3

- 1 Which of the following belt drive is generally used when the distance between the shafts is too short for flat belt drives?
- A Flat belt
 - B V - belt
 - C Ribbed belt
 - D Link belt
-
- 2 Which of the following gear mechanism can change rotary into linear movement and vice versa?
- A Bevel gears
 - B Mitre gears
 - C Rack and pinion gears
 - D Worm shaft and worm gear
-
- 3 Which of the following coupling is also called as " hook coupling"?
- A Fluid coupling
 - B Universal coupling
 - C Flexible coupling
 - D Chain coupling
-

Module 8 : Power Transmission - Key paper

Questions: Level 1

SL.No	Key
1	C
2	C
3	B
4	D
5	C
6	D
7	C
8	C
9	D
10	C
11	B
12	A
13	A

Questions: Level 2

SL.No	Key
1	A
2	B
3	C
4	B
5	C
6	D
7	B
8	A
9	B
10	C

Questions: Level 3

SL.No	Key
1	B
2	C
3	B

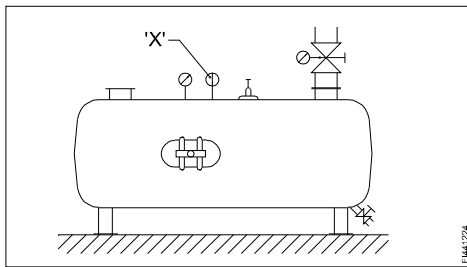
Fitter - Block 2 - Module 9 : Hydraulic and Pneumatics

Questions: Level 1

1 Which energy is converted in hydraulic pump?

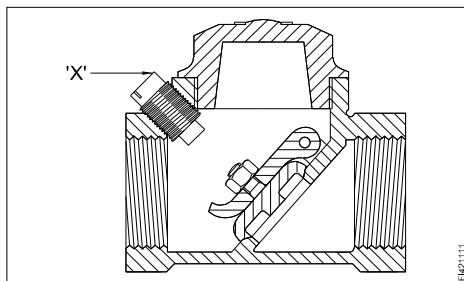
- A Thermal energy to hydraulic energy
- B Electrical energy to hydraulic energy
- C Pneumatic energy to hydraulic energy
- D Mechanical energy to hydraulic energy

2 What is the name of part marked as 'x' in compressor?



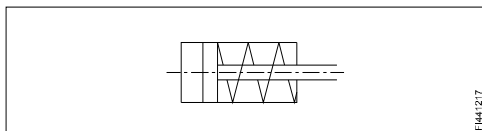
- A Relief valve
- B Thermometer
- C Shut-off valve
- D Pressure gauge

3 What is the name of the part marked as 'x' in non-return valve?



- A Disc
- B Stop plug
- C Hinge pin
- D Disc hinge nut

4 What is the name of the symbol?

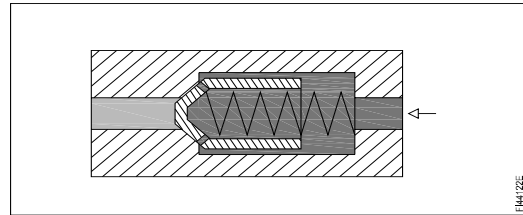


- A Moving part of valve
- B Pressure relief valve
- C Double acting cylinder
- D Single acting cylinder with spring return

5 Which valve is used to permit fluid to flow in one direction and block the flow in opposite direction?

- A Globe valve
- B Check valve
- C Shuttle valve
- D Pressure relief valve

6 What is the name of valve?



- A Slide valve
- B Check valve
- C Shuttle valve
- D Puppet valve

7 Which pressure value is read through pressure gauge?

- A Gauge Pressure
- B Atmospheric Pressure
- C Vacuum Pressure
- D Absolute Pressure

8 Which formula is used to calculate the pressure?

- A Force + Area
- B Force/Area
- C Force - Area
- D Force x Area

9 Which formula is used to calculate the absolute pressure?

- A Atmospheric Pressure - Gauge Pressure
- B Atmospheric Pressure + Gauge Pressure
- C Atmospheric Pressure x Gauge Pressure
- D Atmospheric Pressure ÷ Gauge Pressure

10 What is the unit of pressure in SI unit?

- A lb/in²
- B N/m²
- C gram/ cm²
- D kg/ m²

11 Which term is a metric unit of pressure equal to 1,00,000 pascal?

- A Millibar
- B Kilo Pascal
- C Bar
- D Newton

12 What is the value of bar in metric unit of pressure?

- A 1 kg/ mm²
- B 1 kg/ cm²
- C 1 kg/ m²
- D 1 kg/ dm²

13 Which formula is used to calculate force?

- A Pressure ÷ Area
- B Pressure x Area
- C Pressure - Area
- D Pressure + Area

14 What is the unit of force in SI unit?

- A Kilogram
- B Newton
- C Dyne
- D Pounds

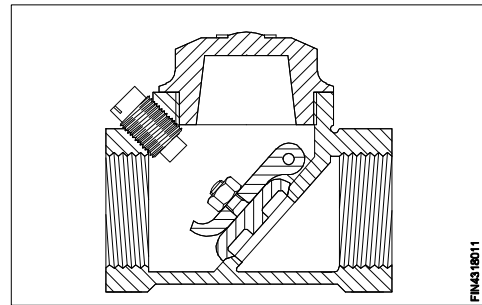
15 Which law states that the pressure exerted on a liquid is transmitted equally in all the directions?

- A Boyle's Law
- B Pascal's Law
- C Hook's Law
- D Archimedes Principle

16 Which law states that mass of gas is compressed or expanded at a constant temperature, then the absolute pressure is inversely proportional to the volume?

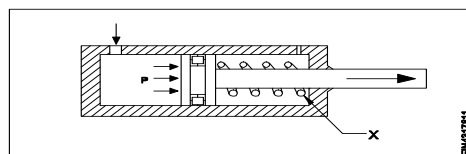
- A Pascal's Law
- B Boyle's Law
- C Archimedes Principle
- D Hook's Law

17 What is the name of the valve?



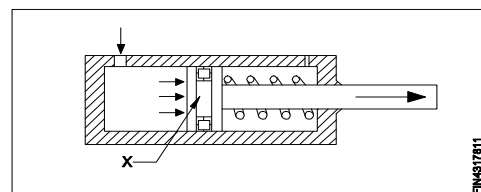
- A Flow control valve
- B Ball type check valve
- C Swing check valve
- D Pressure type valve

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



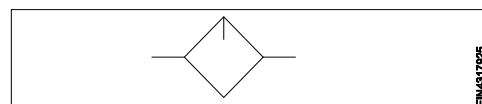
- A Cylinder
- B Piston
- C Spring
- D Inlet port

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



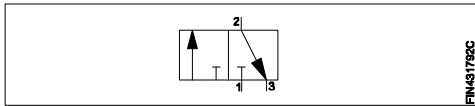
- A Cylinder
- B Piston
- C Seal
- D Spring

20 What is the name of the pneumatic symbol?



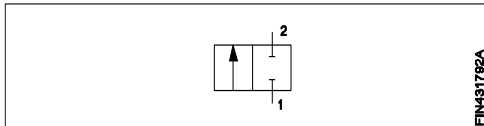
- A Filter
- B Lubricator
- C Dryer
- D Pressure gauge

21 What is the name of the valve symbol?



- A Directional control valve
- B Flow control valve
- C 3/2 way valve
- D 5/2 way valve

22 What is the name of the pneumatic valves?

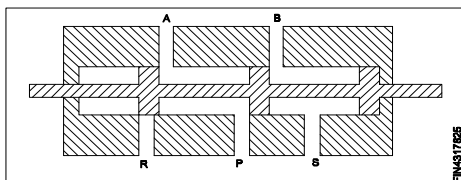


- A Directional control valve
- B Roller valve
- C Pressure valve
- D Flow control valve

23 What is the formula for the cylinder output force?

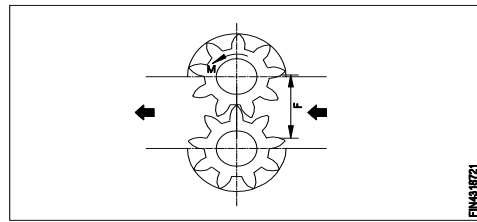
- A $F = \frac{P}{A} \times 10$
- B $F = \frac{A}{P} \times 10$
- C $F = \frac{P \times A}{10}$
- D $F = \frac{10}{P \times A}$

24 What is the name of the valve?



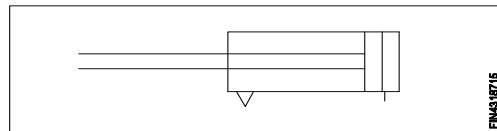
- A 5 port 2 position valve
- B 3 port 2 position valve
- C 4 port 3 position valve
- D 4 port 2 position valve

25 What is type of hydromotor?



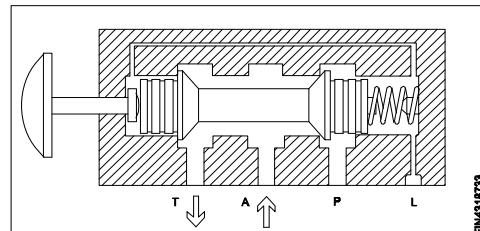
- A Gear type
- B Valve type
- C Piston type
- D Propeller type

26 What is the name of symbol used in hydraulic cylinder?



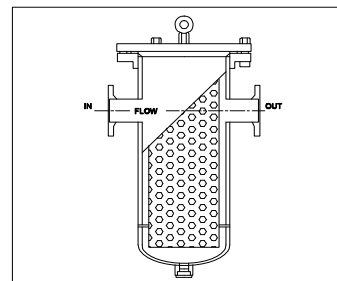
- A Single acting cylinder piston
- B Single acting return piston
- C Double acting power stroke
- D Double acting with crushing

27 What is the type of suction control valve?



- A 2/2 way valve
- B 3/2 way valve
- C 4/2 way valve
- D 4/3 way valve

28 What is the type of the filter?



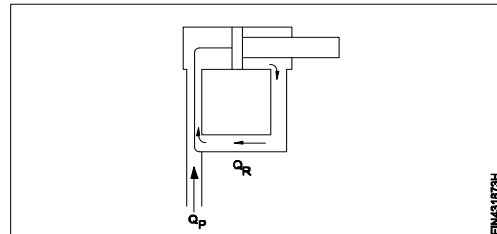
- A Absorbent filter
- B Mechanical filter
- C Magnetic filter
- D Return line filter

Questions: Level 2

- 1 How hydraulic transmission force is controlled?
A By air
B By gears
C By fluids
D By electric
-
- 2 Which valve has two inlet / one outlet in hydraulic / pneumatic system?
A Slide valve
B Check valve
C Shuttle valve
D Solenoid valve
-
- 3 Why in hydraulic pump the filter is installed in suction line?
A Reduce the oil to enter
B Preventing foreign matter
C Reduce pressure in the pump
D Increase the pressure in the pump
-
- 4 Which System gets compressed air as energy inputs?
A Hydraulic System
B Pneumatic System
C Electrical System
D Mechanical System
-
- 5 Which Pressure value is measured with respect to perfect vacuum?
A Atmospheric Pressure
B Absolute Pressure
C Gauge Pressure
D Vacuum Pressure
-
- 6 Which term is used to move load with less efforts?
A Pneumatic
B Hydraulic
C Pressure
D Flow of Air
-
- 7 Which one of the following comes under the applications of pneumatics?
A Drag
B Push
C Close
D Open
-

- 8 Which system is used liquid as transmitting fluid?
A Pneumatic system
B Hydraulic
C Electrical
D Mechanical
-

- 9 What is the name of the Hydraulic circuit?

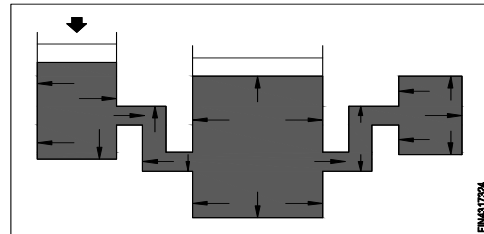


- A 5/2 way circuit
B 4/2 way circuit
C 3/2 way circuit
D By - Pass circuit
-
- 10 Which valves are used to control the direction of the flow of fluid?
A Flow control valve
B Non - return valve
C Pressure control valve
D Directional control valve
-
- 11 Which part of the single acting cylinder is attached with the load?
A Spring
B Seal
C Piston
D Piston Rod
-
- 12 What is the purpose of direction control valve in hydraulic system?
A Open or close
B Increase the pressure
C Decrease the pressure
D Control the valve
-
- 13 Which valve block flow in one direction and allow free flow in the other direction?
A Non- return valve
B 4/2 way Valve
C Gate valve
D Globe valve
-
- 14 Which energy is present in oil by virtue of its motion?
A Potential energy
B Kinetic energy
C Static energy
D Heat energy
-

- 15** What is the name of the device used to remove dust, chips and other foreign particles from the fluid?
- A** Pressure regulating valve
B Filter
C Accumulator
D Regulator
-
- 16** Which valve is used to remove the excess amount of oil in the hydraulic system?
- A** Pressure relief valve
B Pressure reducing valve
C Pressure regulator valve
D Roller valve
-
- 17** Which valve is a orifice or restrictor in hydraulic system?
- A** Flow control valve
B Check valve
C Direction control valve
D Pressure Valve
-
- 18** Which type of filters are used for trapping various sizes of particular matter?
- A** Mechanical filter
B Absorbent filter
C Magnetic filter
D Suction filter
-
- 19** Which type of filter is used to remove ferrous materials from oil in hydraulic system?
- A** Pressure line filter
B Offline filter
C Magnetic filter
D Absorbent filter
-
- 20** Which device is used for handling and removing contaminations from hydraulic oil?
- A** Hydraulic filter
B Actuators
C Valve
D Regulator
-
- 21** Which device in pneumatics are used for converting pressure energy of compressed air into mechanical energy?
- A** Pneumatic actuators
B Filter
C Regulator
D Cylinder

- 22** Which energy is converted by hydro static pressure of the oil?
- A** Electrical energy
B Mechanical energy
C Penumatic energy
D Hydraulic energy

- 23** What is hydraulic function?



- A** Hydrostatic Pressure
B Transmission of fluid pressure
C Inequal piston areas
D Turbulent flow
-
- 24** Which of the following control valve is used to control the direction of flow of fluid commencement and termination of the flow of fluid?
- A** Flow control valves
B Non - return valves
C Pressure control valves
D Directional control valves
-
- 25** What is the material for non return valve?
- A** Mild steel
B Aluminium
C Stainless steel
D Cast iron
-
- 26** Which of the following gear pump is most common type of rotary pump?
- A** Internal gear pump
B External gear pump
C Lobe pump
D Vane pump
-
- 27** What is the percentage of 'Nitrogen' in the atmospheric air?
- A** 70%
B 75%
C 78%
D 80%

Questions: Level 3

- 1 Why filter is installed in the suction line of hydraulic pump?
A Reduce the oil to enter
B Reduce the oil pressure
C Preventing foreign matters
D Reduce pressure in the pump
-
- 2 Which part of double acting cylinder prevents air leakage from cylinder to atmosphere?
A Piston seal
B Rod Seal
C Piston end
D Rod end
-
- 3 What is the name of the term for the inter locked air bubbles and pockets in the hydraulic pipe lines and components?
A Cavitation
B Static pressure
C Vapour Pressure
D Pressure jerks
-
- 4 Which valve prevents the system pressure from rising too high if the pressure regulating valve fails?
A Check valve
B Relief valve
C Pressure valve
D Direction control valve
-
- 5 Which type of filter helps to protect the pump from fluid contaminations?
A Suction filter
B Magnetic filter
C Absorbent filter
D Mechanical filter
-
- 6 What is the cause if oil flow under pressure while passing through the restricted passage?
A Increase Heat
B Decrease Heat
C Decrease volume
D Increase pressure
-
- 7 What is the reason the relay is used in electro - pneumatics?
A Signal processing
B To control valves
C To sense the temperatures
D Sequencing
-

- 8** What is the reason air dryer is used in air compressor?
A To transfer of heat from cylinder
B To remove water vapour from compressed air
C To prevent the dirt and dust to enter a side
D To provide sufficient cooling
-
- 9** What is the reason the pumps are used in hydraulic system?
A To control the flow in specific directions
B To pour the fluid in specific directions
C To regulate fluid flow
D To store the fluid
-
- 10** What is the reason valves are used in hydraulic system?
A To permit the fluid flow only in desired direction
B To store the fluid in system
C To remove the dust, chips..etc
D To pour the fluid in specific directions
-
- 11** What is the reason actuators are used in pneumatics system?
A To convert measure energy into electrical energy
B To mechanical energy into electrical energy
C To convert measure energy into hydraulic energy
D To converting pressure energy into mechanical energy
-
- 12** Which of the following filter is known as "Strainer" in hydraulic system?
A Mechanical filter
B Absorbent filter
C Adsorbent filter
D Magnetic filter
-

Module 9 : Hydraulic and Pneumatics - Key paper

Questions: Level 1

SL.No	Key
1	D
2	B
3	B
4	D
5	B
6	C
7	A
8	B
9	B
10	B
11	C
12	B
13	B
14	B
15	B
16	B
17	C
18	C
19	B
20	B
21	C
22	A
23	C
24	A
25	A
26	A
27	B
28	B

Questions: Level 2

SL.No	Key
1	C
2	C
3	B
4	B
5	B
6	A
7	B
8	B
9	D
10	D
11	D
12	A
13	A
14	B
15	B
16	A
17	A
18	B
19	C
20	A
21	A
22	B
23	B
24	D
25	D
26	B
27	C

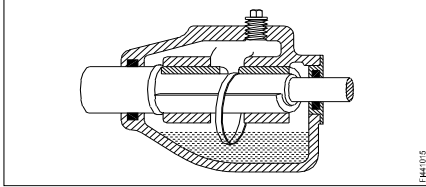
Question: Level 3

SL.No	Key
1	C
2	B
3	A
4	B
5	A
6	A
7	A
8	B
9	B
10	A
11	D
12	A

Fitter - Block 2 - Module 10 : Preventive Maintenance

Questions: Level 1

1 What is the system of lubrication?



- A Wick feed
- B Ring oiling
- C Splash system
- D Manual screw down system

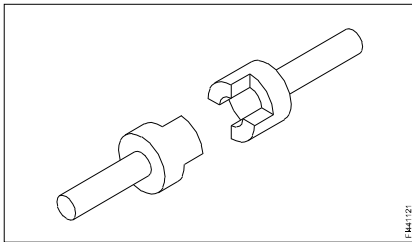
2 What is the name of the property of lubricant that can withstand high pressure or load?

- A Oiliness
- B Viscosity
- C Fire point
- D Flashpoint

3 What is the flash point of general purpose machinery oil?

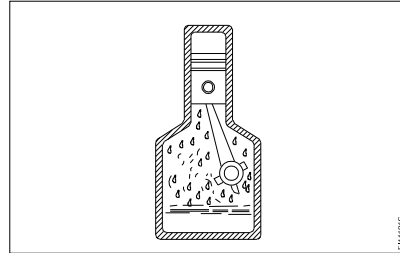
- A 160°C
- B 196°C
- C 210°C
- D 204°C

4 What is the name of the clutch?



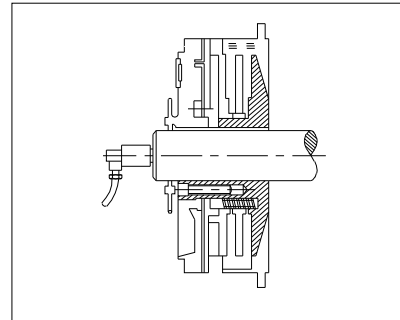
- A Air clutch
- B Dog clutch
- C Cone clutch
- D Single plate clutch

5 What is the name of lubrication system?



- A Wick feed
- B Ring oiling
- C Gravity feed
- D Splash lubricating

6 What is the type of clutch?

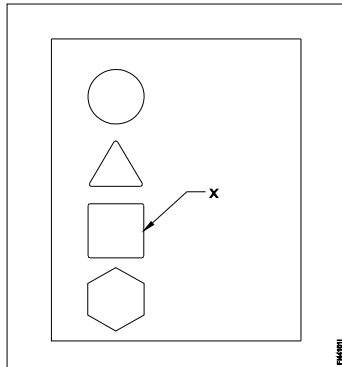


- A Air clutch
- B Multi plate
- C Cone clutch
- D Over riding clutch

7 What is the purpose of using lubricant?

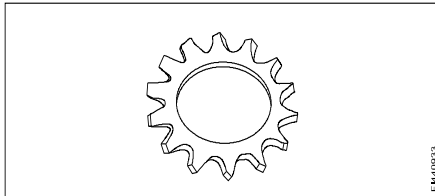
- A Prevent wear
- B Increases friction
- C Increases the loading capacity
- D Increases the speed of moving elements

8 What is the lubricating schedule symbol marked as 'x'?



- A Daily
- B Weekly
- C Monthly
- D Yearly

9 What is the name of tooth type lock washer?



- A Internal type
- B External type
- C Counter sink type
- D Internal and external type

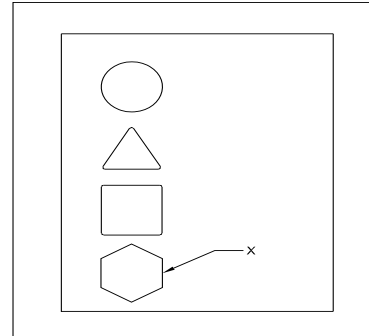
10 Which system the wick feed lubrication is categories?

- A Hand feed
- B Force feed
- C Splash feed
- D Gravity feed

11 What is the name of tooth type lock washer? Which property states that the temperature of the lubricant is able to flow freely while poured?

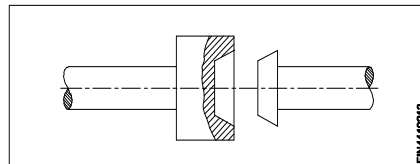
- A Oiliness
- B Fire point
- C Pour point
- D Flash point

12 What is the lubricating schedule symbol marked as 'X'?



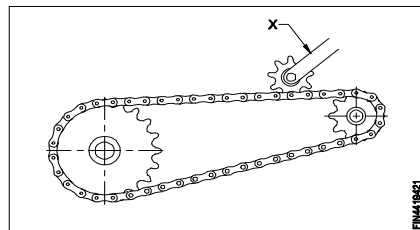
- A Daily
- B Weekly
- C Monthly
- D Yearly

13 What is the name of the clutch?



- A Dog clutch
- B Cone clutch
- C Air clutch
- D Centrifugal clutch

14 What is the name of sprocket marked as 'X'?



- A Chain
- B Driven
- C Jockey
- D Driver

Questions: Level 2

- 1 Which wire rope strands are twisted in the same direction?
A Lang lay rope
B Rigid lay rope
C Regular lay rope
D Combined lay rope
-
- 2 Why foundation bolt are essential to machines?
A Observe vibration
B Hold machine firmly
C Improve the production
D Avoid shifting of machine
-
- 3 How jib crane is used to move the load?
A Radially
B Vertically
C Horizontally
D Inclined angle
-
- 4 Which type of rope is used for heavy duty hoisting?
A Wire ropes
B Yarn ropes
C Cotton ropes
D Manila ropes
-
- 5 Which wire rope strands are twisted in the opposite direction?
A Regular rope
B 'Rigid lay rope
C Land lay rope
D Combined lay rope
-
- 6 What is the purpose of triangular frame base resting on ground in the frame of derrick lifting equipment?
A Prevent the vibration
B Avoid slipping of load
C Prevent imbalance of load
D Prevent base from moving under load
-
- 7 Which cutting fluid is used for heavy duty machine with less cutting speed?
A Synthetic fluid
B Straight mineral oil
C Fatty oil
D Soluble oil
-

- 8 Which type of lock washer used with flat or oval type head screw?
A External type
B Internal type
C Counter sunk type
D Internal and external type
-
- 9 Which is the property of the oil catches fire and continues to be in flame?
A Flash point
B Fire point
C Pour point
D Oiliness
-
- 10 Which cutting fluid is used for turning copper?
A Kerosene
B Mineral oil
C Soluble oil
D Lard oil
-
- 11 Which type of clutch is used for machine tools to connect transmission gear box in driving motor?
A Cone clutch
B Multiplate clutch.
C Air clutch
D Centrifugal clutch
-

Questions: Level 3

- 1 Which of the following system of lubrication is also known as shot lubricator?
- A Gravity feed lubrication system
 - B Oil pump lubrication system
 - C Splash lubrication system
 - D Pressure feed lubrication system
-
- 2 Which of the following clutch can be engaged progressively whilst one or both elements are rotating and it can transmit low power?
- A Dog clutch
 - B Cone clutch
 - C Air clutch
 - D Simple plate clutch
-
- 3 Which of the following washer is used to prevent a bolt or nut from loosening under vibration?
- A Lock washer
 - B External type washer
 - C Internal type washer
 - D Counter sunk type washe
-
- 4 Which of the following truck is driven by driver to carry loads to considerable distances to and fro the shop floor/ yards for storage capacity 2 tones to 10 tones, lift 2 meter height?
- A Diesel automotive fork lifter
 - B Battery powered fork lift stacker
 - C Hydraulic stacker
 - D Mechanical stacker
-

Module 10 : Preventive Maintenance - Key paper

Questions: Level 1

SL.No	Key
1	B
2	B
3	A
4	B
5	D
6	A
7	A
8	C
9	B
10	D
11	C
12	D
13	B
14	C

Questions: Level 2

SL.No	Key
1	A
2	B
3	C
4	A
5	A
6	D
7	C
8	C
9	B
10	C
11	B

Questions: Level 2

SL.No	Key
1	D
2	B
3	A
4	A