MULTIPLE CHOICE PRACTICE QUESTIONS/ANSWERS FOR ONLINE/OMR AITT-2020

Draughtsman Mechanical Trade Theory(2nd Year)

Directorate of Technical Education & Training,Odisha, Cuttack
(Uploaded in www.sctevtodisha.nic.in)

AUTO CAD

1. What does UCS in the context of CAD means?

(a) User Coordinate System

(b) United CAD Software

(c) Unite, Cut and Select

(d) Universal CAD settings

2. What is the keyboard shortcut to turn ON/OFF the object snap (OSNAP) in AutoCAD?

(a) F3 (b) F8 (c) F7. (d)None of the above

3. What is the keyboard circuit to turn ON/OFF the ORTHO made in AutoCAD?

(a) F3. (b)F4. (c)F8. (d)F9

4. The extension for AutoCAD template file is _____

(a) DWG. (b)DWT. (c) DWF. (d)DXF

5. When drawing in 2D, what axis do you not work with?

(a) X. (b)Y. (c) WCS. (d)Z

6. To print the entire project, you will choose to regulate what do plot?

(a) Display. (b) Extends (c) Limits (d) Window

7. The coordinate plane divided by a horizontal number line is called what?

(a) Y – axis. (b)Origin (c) X – axis (d) Quadrant

8. The coordinates for the origin in the coordinate plane are_____

(a) 1, 1 (b)0, 0. (c) 0, 1 (d)1, 0

9. A strip that holds a set of buttons in AutoCAD is called_____

(a) Thumbnail (b) Toolbar (c)Icon(d) None of the above

10. What function key controls the ortho mode?

(a) F6. (b)F8. (c)F9 (d) None of the above

11. If you need the text to be reserved, when you mirror the text, then you need to set

(a) MIRRTEXT to 0

(b) MIRRTEXT to 1

(c) TEXTMIRR to 0

(d) TEXTMIRR to 1

12. What happens if you fillet these two lines with radius 0?

(a) Cannot fillet

(b) Sharp corner

(c) Both (a) and (b)

(d) None of the above

13. With the multiple Text editor, you can do all of the following, except_____

(a) Insert number and bulleted list

(b) Insert specific drafting and engineering symbols

(c) Insert pictures

(d) Create fields such as date, time and author

14. What is the command used to draw the dimension line as shown in figure. Given below?

(a) Dim jogged (b) Dimjogline. (c) Jogged line. (d) Jogged dim

15. Whenever you save a drawing a new breakup file is created which contains file without changes, what is the extension of that backup file?

(a) DWG. (b) SVG. (c) BAK. (d) BCK

16. The heart of an oscilloscope is _____

(a) Power supply (b) CRT

(c) Vertical amplifier (d) Horizontal amplifier

17. The waveform used in CRO for deflecting the beam from left to right is _____

(a) Saw tooth (b) Square. (c) Rectangular (d) Triangular

18. The intensity of the beam display on the CRO screen should be kept for _____

(a) Saving the power consumption

(b) Accurate measurement

(c) Obtaining clear vision

(d) Increasing the life of CRT

19. Measurement of high frequencies above 100 MHz can be carried out on a _____

(a) Dual trace oscilloscope

(b) sampling oscilloscope

(c) Storage oscilloscope

(d) simple oscilloscope

20. A dual beam oscilloscope consists of _____

(a) two electron guns

(b) two independent CRTs

(c) single beam splited into two beams

(d) none of the stated above

21. Lissajous figures are used in the measurement of _____

(a) current (b) voltage (c) frequency (d) power (V×I)

22. In a CRT, the emission of electrons takes place at temperature_____

(a) 3000C (b) 6000C. (c) 8000C (d) 12000C

23. The frequency range of a sweep oscillator used in a CRO is kept_____

(a) 10Hz to 30kHz (b) 1kHz to 300kHz (c) 10kHz to 3000kHz. (d)1MHz to 30MHz

24. The substance used in coating a phosphor layer inside the screen of a CRT is _____

(a) potassium compound

(b) zinc compound

(c) Sodium compound

(d) none of the above

25. CRT used in CRO requires a high positive voltage of the range of _____

(a) 5 kV to 6 kV (b) 8 kV to 10 kV

(c) 15 kV to 20 kV (d) 25 kV to 30 kV

26. The sensitivity of an oscilloscope should be _____

(a) 0.1 mV / Div. to 5 mV / Div. (b) 1 mV / Div. to 5 mV / Div.

(c) 1 V / Div. to 5 V / Div. (d) 10 V / Div. to 50 mV / Div.

27. The trigger control of a CRO controls_____

(a) hor. rolling of signal display

(b) vert. rolling of signal display

(c) both hor. And vert. rolling of signal display

(d) none of the above

28. What is the full form of D.S.O?

A: Dual System Oscillator B: Dual Storage Oscillator

C: Digital System Oscilloscope D: Digital Storage Oscilloscope

29. What type of wave form is available at pin number 2 of function generator IC 8038?

A: Sine wave B: Square wave

C: Triangular wave D: Modulated wave

30. Which function makes a stable waveform displayed on the DSO screen?

A: Auto set function B: Triggering function

C: Saving a setup function D: Recalling a setup function

31. Which acquisition mode is used by the DSO to sample the highest and lowest values of the input signal?

A: Auto mode B: Sample mode C: Average mode D: Peak detect mode

32. What is the purpose of sampling in DSO operation?

A: Control time base signal

B: Convert analog signal to digital

C: Convert digital signal to analog

D: Visualize the signal

33. How the overall operation of DSO is controlled?

A: Using microprocessors

B: Using ICs and transistors

C: Using discrete components

D: Using diodes and transistors

34. Which function is performed by the sample / Hold circuit along with the ADC in Digital Storage Oscilloscope?

A: Storage
B: Data display

C: Data acquisition

D: Upload to computer

35. What is the full form of C.R.O?

A: Common Ray Oscilloscope

B: Cartridge Ray Oscilloscope

C: Cathode Ray Oscilloscope

D: None of these

36. Which type of waveform is available in pin number 3 of IC 8038 function generator?

A: Sine wave
B: Square wave

C: Triangle wave
D: Modulated wave

37. What is the advantage of the Digital Storage Oscilloscope?

A: Process signals in analog format

B: Make measurement of digital data

C: Stores digital data for later viewing

D: Electron beam moves across the screen

38.Which part of the DSO stores the processed data of input signal voltage?

A: Memory

B: Screen display

C: Analog to digital converter

D: Digital to analog converter

39. How the digital equipment works with the input voltage samples?

A: Constant output voltage

B: Continuously variable voltage

C: Continuously variable current

D: Convert it to Binary numbers

40. Which circuit is used in Digital Storage Oscilloscope (DSO) to convert the input sample voltage into digital information?

A: Rectifier circuit
B: Inverter circuit

C: Digital to Analog converter circuit

D: Analog to Digital converter circuit

41. Which type of waveform is available at pin number 9 of function generator IC 8038?

A: Sine wave
B: Square wave

C: Triangular wave
D: Modulated wave

42. The sensitivity of a CRO is determined by its_____

(a) Horizontal amplifier
(b) vertical amplifier

(c) CRT
(d) sweep oscillator

43. What would you use to create a plotline?

(a) POLYLINE command
(c) PEDIT command

(b) PLINE command
(d) None of the above

44. To draw a regular oval shape that has two centers of equal radius, which command should you use?

(a) CIRCLE

(b) ELLIPSE

(c) ARC

(d) None of the above

45. Concentric circles are circles that_____

(a) Meet at a single point

(b) Are not quite circular

(c) Share a centre point

(d) None of the above

46. Which of the following is not a property of an object?

(a) Line weight

(b) Elevation

(c) Hyperlink

(d) Measure

47. What you cannot create from the command offset?

(a) Vertical straight

(b) Parallel arcs

(c) Three parallel line

(d) Concentric circles

48. Which quadrant has a negative X value but positive Y value?

(a) First quadrant

(b) Second quadrant

(c) Third quadrant

(d) Fourth quadrant

49. Which command converts discrete objects in plotline?

(a) Subtract

(b) Join

(c) Union

(d) POLYLINE

50. All of the axes in the 3D coordinate system meet at _____

(a) 60° Angles (b) 90°Angles

(c) 120°Angles (d) 135°Angles

51. How many dimensional Cartesian system can measure by using CMM?

A Two dimensions
B Three Dimensions

C Four Dimensions
D Only positive and negative Dimension

52. Which directions the movements of probe in third axis?

A Up and down B Right to left C Left to right
D Rotation of probe

53. What is the name of gantry type super structure having two legs?

A Guide rail. B Air bearings C Bridge
D Position

54. How many types of probes are used in CMM?

A 6. B 4 C 3 D 5

55. Which type of probe is used for soft or delicate parts?

A White light. B Optical scanner

C Leaser seams. D Trigger probe

56. How many decimal points are taken accurately in X, Y coordinate system?

A 15. B 10 C 14 D 12

57. How many systems are used in AutoCAD to entering points on directly?

A 5. B 2 C 4 D 3

58. Which co-ordinates are used to draw a line at particular angle?

A Objective co-ordinates B Relative co-ordinates

C Absolute co-ordinates D Polar co-ordinates

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A Labor cost is too high

B To draw the drawings very accurately and time also saved

C Man power is reduced

D Skilled person required algorithms

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70. Which type of probe is used to measure the component more faster than the conventional probe?

A Mechanical probe

B Optical probe

C Trigger probe

D Scanning probe

71. Which type of probe non toughing the material and captured image of the surface and calculated the reading?

A Scanning probes

B Mechanical probe

C Optical probes with CCD systems

D Trigger probe

72. Which device is used to control the probe in much the same way of remote controlled cars?

A Tool switch

B Hand Box with toy sticks

C 3 axis digital reads out

73. Which shape of probe is used for measuring special features?

A Radial

B Quadrant

C Spherical ball

D Triangular

74. Which device via the probe that is positioned by automatically?

A Algorithms

B Robotic

C DCC

D CCD

75. Which device monitors the position of the probe while tacking measurement in CMM?

A Sensor

B Algorithms

C DCC

D Point cloud

76. Which device via data's are analyzed the point clouds are generated for the Construction of features?

A. DRO B. CCD C .DCC D. Regression

77. What is the device medium is used in gantry type CMM for ensuring friction free travel of legs?

A Styles B Quill

C Air bearings D Carriage

78. What device is used to enhance the approachability of the measuring probe to complicated work pieces?

A Granite surface plate

B Points cloud

C Optical rotary table

D The Bridge

79. Which materials made out of mechanical probe are used for commonly in CMM?

A Hard ball

B Steel ball

C High carbon steel

D Cast steel

80. What is the combination of key is used in AutoCAD to turns design centre ON/OFF?

A CTRL + Z

B CTRL + R

C CTRL + 3

D CTRL + 2

81. What is the feature of F1 Key in Microsoft word?

A Object snap

B Help

C Grid display

D Grid snap

82. What is the main function of CAD?

A To design of drawings and layout of product

B To open the pop - up menu

C To create the folder or icons an desktop

D To turn the windows explorer

83. What is the feature of F6 key in AutoCAD?

A Dynamic UCS (AutoCAD only)

B Grid display

C Polar tracking

D Dynamic input

84. What are the combination keys are used to open the save drawing as dialogue box?

A CTRL + H

B CTRL + I

C CTRL + S

D CTRL + P

85. What is the short cut key for restricts the cursor movement to specified grid intervals?

A F11

B F9

C F10

D F3

86. Which component is used to draw a line from the centre of the circle to the middle of the vertical line?

A. WCS B. Offset C. O SNAP D. UCS

87. When drawing in 2D what axis does not work with?

A. X axis B. Z axis C. WSC D. Y axis

88. Which type of probe measured the job very quickly not only to measure the size and also create the 3D image of the part?

A Optical probe

B Scanning probe

C Laser beams or white light

D Trigger probe

89. Which command is used to divide the object into segments having predefined length?

A Divide

B Measure

C Trim

D Chamfer

90. What is the function of CTRL + 0 key in AutoCAD?

A Turns tool palettes window ON/OFF

B Turns design centre ON/OFF

C Turns the properties ON/OFF

D Turns user interface elements ON/OFF

91. What is the function of CTRL + P key in AutoCAD?

A Turns property ON/OFF

B Turns design centre ON/OFF

C Opens the plot dialogue box

D Opens the save drawings as dialogue box

92. What is the function of CTRL + J key in AutoCAD?

A Turns a group as ON/OFF

B Performs the operation cancelled by UNDO

C Repeats the last command

D Recall last command

93. What is the function of CTRL + X key in AutoCAD?

A Switch between view parts

B Removes select object from drawing to clipboard

C Recall the last command

D urns tool palettes window ON/OFF

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B To draw the drawings very accurately and time also saved

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D Skilled person required algorithms

Answer:

1. (a) 2.(a) 3.(c) 4.(b) 5.(d) 6.(c) 7.(c) 8.(b) 9 .(b) 10.(b) 11.(b) 12.(b)13.(c) 14.(b) 15.(c) 16.(b) 17.(b) 18.(a)19.(d) 20.(b) 21.(a) 22.(c) 23.(c) 24.(a) 25.(b) 26.(a) 27.(a) 28.(a) 29.(d) 30.(a) 31.(a) 32.(d) 33.(b) 34.(a) 35.(c) 36.(c) 37.(c) 38.(c) 39.(a) 40.(d) 41.(d) 42.(b) 43.(b) 44.(b) 45.(c) 46.(d) 47.(a) 48.(b) 49.(b) 50.(b) 51. B 52. A 53. C 54. B 55.B 56.C 57.D 58.D. 59.B 60.A 61.C 62.B 63.B 64.C 65.D 66.D 67.B 68.C 69.B 70.B 71.C 72.A 73.D 74.C 75.C 76.A 77.D 78.B 79.A 80.A 81.C 82.B 83.C 84.C 85.C 86.B 87.D 88.C 89.C 90.B 91.B 92.C 93.B 94.B

PIPE FITTING & VALVES

1. Which one of the following types of pipes is best suited food processing industry?
   (A) CI pipes
   (B) GI pipes
   (C) SS pipes
   (D) PVC pipes
2. Galvanized pipes are steel or iron pipes coated with.....
   (A) Zinc
   (B) Lead
   (C) Copper
   (D) Aluminium
3. PVC pipes manufactured using.....
   (A) Rubber
   (B) Plastic
   (C) Nylon
   (D) Polyvinylchloride
4. CI pipes are manufactured using.....
   (A) Grey cast iron
   (B) White cast iron
   (C) Malleable cast iron
   (D) Ductile cast iron
5. The majority of pipe connections are made with.....
   (A) Flanges
   (B) Pipe fittings
   (C) Sliding connectors
   (D) Self - locking connectors
6. That standards recognize two types of pipe threads straight and.....
   (A) Sloped
   (B) Offset
   (C) Tapered
   (D) Curved
7. Threads produced on the outside of a piece of pipe are called.....
   (A) Tapered threads
   (B) Straight threads
   (C) OD threads
   (D) External threads
8. A 'P&ID' drawing is a.....
   (A) Procedures and installation drawing
   (B) Pipe and instrumentation diagram
   (C) Process and instrumentation drawing
   (D) Process and installation diagram
9. Tapered threads heave a taper of.....
   (A) 1:12
   (B) 1:16
   (C) 1:18
   (D) 1.20
10. A fitting that connects two pipes placed at right angle to each other is a.....
    (A) 90° below
    (B) 45° below
    (C) Lateral fitting
    (D) 90° connector
11. Pipes are fastened together without the use of pipe fittings by .....
    (A) Forging
    (B) Riveting
    (C) Welding
    (D) Casting
12. A “return bend” fitting changes the direction of the pipe.....
    (A) 360°
    (B) 180°

(C) 90°

(D) 45°

13. Fittings are fastened to PVC pipe by.....
    (A) Use of threaded fittings
    (B) Use of soldered fittings
    (C) Installation of friction – type fittings
    (D) Applying and adhesive
14. PVC pipe is made from.....
    (A) Steel
    (B) Plastic
    (C) Copper
    (D) None of the above
15. What is the most common pipe material.....
    (A) Steel
    (B) Plastic
    (C) Copper
    (D) Clay
16. Which type of pipe fitting allows the contents ab to pipes to flow together into one pipe?
    (A) Return bend
    (B) Elbow
    (C) Lateral
    (D) Cross
17. Single – line drawing are used.....
    (A) To accurately represent the space the pipes take up
    (B) Because they are simple to draw
    (C) Because they look much more realistic
    (D) Because you don't need to use symbols to represent the various components
18. Double - line drawing are used for.....
    (A) Visualisations
    (B) Interference checks
    (C) Presentation drawing
    (D) All of the above
19. This type of pipe is commonly used for water, steam, oil and gas.
    (A) Wrought iron or copper
    (B) PVC or steel
    (C) Steel or wrought iron
    (D) Copper or PVC
20. These types of pipes are generally connected with bell and spigot joints or flanged joints.
    (A) Soil and Waste
    (B) Water and gas
    (C) Water and steam
    (D) Gas and soil
21. This type of drawing, vertical pipes may be resolved into horizontal plane.
    (A) Standard view
    (B) Elevation view
    (C) Transverse view
    (D) Developed piping
22. This type of drawing shows two lines representing the pipe diameter
    (A) Single – line
    (B) Double – line
    (C) Standard piping
    (D) Centre – line piping
23. Regardless of type, all bulbs have the following basic parts, with the exception of.....
    (A) Bonnet
    (B) Nipple
    (C) Actuator
    (D) Body

24. The body of a valve typically receives inlet and outlet piping through any of the following types of joints except.....
    (A) Glued
    (B) Welded
    (C) Threaded
    (D) Bolted
25. The internal elements of a valve are collectively referred to as a valve's.....
    (A) Guts
    (B) Trim
    (C) Works
    (D) Packings
26. Pipe vice can be used to hold pipes upto -
    A.63 mm diameter
    B. 60mm diameter
    C. 59 mm diameter
    D. 62 mm diameter
    27. Which pipe vice can be folded and carried easily to any working place?
    A. pipe vice
    B. Portable folding pipe vice
    C. Chain pipe vice
    D. Bench pipe vice
    28. Chain Pipe vice can be used to hold pipes upto -
    A.180mm diameter
    B. 150mm diameter
    C. 200mm diameter
    D. 250mm diameter
    29. After cutting the pipe the pipe must be reamed by pipe reamer, because -
    A. to remove ridge on the inside of the pipe
    B. to finish the internal diameter of pipe
    C. to remove the burrs from internal hole of pipe
    D. to give a good platform for make internal thread
    30. Which pipe cutter is best for cutting the large diameter size pipes?
    A. Pipe cutter
    B. Two guided roller pipe cutter
    C. multi wheel chain pipe cutter
    D. Chain pipe cutter
    31. After cutting the pipe by multi chain pipe cutter, the cutting wheels of pipe cutter soaked and washed out. The pipe cutters are soaked by -
    A. Kerosene
    B. Petrol
    C. Light oil
    D. Diesel
    32. Which pipes are used in drainage system?
    A. GI pipes
    B. Mild steel pipes
    C. Plastic pipes
    D. CI soil pipes
    33. Which pipes are used in air conditioning systems?
    A. GI PIPES
    B. MILD STEEL PIPES
    C. COPPER PIPES
    D. ALUMINIUM PIPES
    34. Which standard pipe fitting provide deviations of 90° and 45° in pipe working system?
    A. Elbows
    B. Reducer
    C. Coupling
    D. Union

35. Which standard pipe fitting used for closing the end of a pipe or fitting which has an external thread?
A. Reducer
B. Coupling
C. Caps
D. Plug
36. Which standard pipe fitting used for closing a pipeline, which has an internal thread?
A. Reducer
B. Coupling
C. Caps
D. Plug
37. Which pipe fitting have internal threads to connect two same diameter pipes?
A. Eccentric reducer
B. Concentric reducer
C. Reducer
D. Coupling
38. Which pipe fitting inserted in a pipe line to permit connections with little change to the position of pipe?
A. Reducer
B. Union
C. Coupling
D. Bend
39. Which pipe fitting is used to connect two pipes with different diameters?
A. Coupling
B. Union
C. Reducer
D. Bend
40. Pipe wrenches are used to holding and gripping of pipes with diameters of -
A. 15mm to 50mm
B. 20mm to 50mm
C. 10mm to 50mm
D. 25mm to 50mm
41. Chain Pipe wrenches are used to holding and gripping of pipes with diameters of -
A. 45mm to 150mm
B. 25mm to 150mm
C. 50mm to 150mm
D. 60mm to 150mm
42. Which part of the pipe wrench gives a positive grip?
A. Jaw
B. Pivot
C. Spring
D. Adjusting nut
43. Which pipe bender have tripod stand?
A. Portable hand operated pipe bender,
B. Bench type hand operated pipe bender
C. Hydraulic pipe bender
D. Portable folding pipe bender
44. Which part is designed as a groove in the bench type hand operated pipe bender?
A. Pipe guide
B. Lock nut
C. Lever
D. Inner former
45. Which pipe bender can be used for bending G.I and M.S pipes without sand filling to any direction?
A. Portable hand operated pipe bender
B. Bench type hand operated pipe bender
C. Hydraulic pipe bender
D. Portable folding pipe bender
46. Which part of the hydraulic bending machine available in various sizes and interchangeable?
A. Inner former
B. Back former
C. Operating lever
D. Base plate
47. For cutting external threads on pipe, the Pipe dies are generally available in -
A. 1/2 inch to 3 inch
B. 1/2 inch to 4 inch
C. 1/4 inch to 4 inch
D. 1/ 4 inch to 3 inch
48. Which die stock is required to turn the dies for cut the thread on pipes?
A. Adjustable die stock
B. Ratchet type die stock
C. Solid die stock
D. Plain solid die stock
49. What is the other name of household water tap?
A. Plain water tap
B. Plug cock
C. Stop cock
D. Screw down water tap
50. The washer of the household water tap is made of -
A. Rubber
B. Plastic
C. Asbestos
D. Teflon

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69. Which part is designed as a groove in the bench type hand operated pipe bender?

A. Pipe guide, B. Lock nut, C. Lever, D. Inner former

70. Which pipe bender can be used for bending G.I and M.S pipes without sand filling to any direction?

A. Portable hand operated pipe bender, B. Bench type hand operated pipe bender

C. Hydraulic pipe bender, D. Portable folding pipe bender

71. Which part of the hydraulic bending machine available in various sizes and interchangeable?

A. Inner former, B. Back former, C. Operating lever, D. Base plate

72. For cutting external threads on pipe, the Pipe dies are generally available in -

A. 1/2 inch to 3 inch, B. 1/2 inch to 4 inch, C. 1/4 inch to 4 inch, D. 1/ 4 inch to 3 inch

73. Which die stock is required to turn the dies for cut the thread on pipes?

A. Adjustable die stock, B. Ratchet type die stock, C. Solid die stock, D. Plain solid die stock

74. What is the other name of household water tap?

A. Plain water tap, B. Plug cock, C. Stop cock, D. Screw down water tap

75. The washer of the household water tap is made of -

A. Rubber, B. Plastic, C. Asbestos, D. Teflon

76. For which cause water flowing from the tap even when firmly closed?

A. Worn out of defective washer, B. Spindle thread run out,

C. Stuffing box packing dry, D. Washer loose on valve

77. For which cause water flowing from around the spindle or stuffing box screws?

A. Worn out of defective washer, B. Spindle thread run out,

C. Stuffing box packing dry, D. Defective packing in stuffing box

78. For which cause spindle continuously slipping when turned and tap will not shut off?

A. Worn out of defective washer, B. Spindle thread run out,

C. Stuffing box packing dry, D. Washer loose on valve

79. For which cause tap hard to turn on and off?

A. Worn out of defective washer, B. Spindle thread run out,

C. Stuffing box packing dry, D. Washer loose on valve

80. Why loud noises in the tap occur?

A. Worn out of defective washer, B. Spindle thread run out

C. Stuffing box packing dry, D. Washer loose on valve

81. What are the remedies followed by us if water flowing or dripping from the tap even when firmly closed?

A. Replace washer, B. Tighten stuffing box, C. Replace packing, D. Replace stuffing box

82. What are the remedies followed by us if water flowing from around the spindle?

A. Replace washer, B. Tighten stuffing box, C. Replace tap, D. Replace stuffing box

83. Which valve has gate like disc?

A. Glove valve, B. Gate valve, C. Non return valve, D. Needle valve

84. Which valve should either be fully opened or completely closed?

A. Glove valve, B. Gate valve, C. Non return valve, D. Needle valve

85. Which valve is best suited for main supply lines and pump lines?

A. Check valve, B. Gate valve, C. Non return valve, D. Needle valve

86. Which valve allows one - way flow in water supply or drainage lines?

A. Glove valve, B. Gate valve, C. Non return valve, D. Needle valve

87. What is the other name of non return valve?

A. Needle valve, B. Check valve, C. Plug cock, D. Stop cock

88. In which valve the flow fluid or gas in one direction lift the ball, when the pressure released the ball falls against its seating.

A. Swing check valve, B. Disc type check valve, C. Ball type check valve, D. Disc type gate valve

89. Which valve has globe shaped body?

A. Gate valve, B. Globe valve, C. Check valve, D. Non return valve

90. In which valve the critical parts such as washer, seat, packing can be replaced?

A. Gate valve, B. Globe valve, C. Check valve, D. Non return valve

91. Which valve permits accurate control of the flow of water?

A. Gate valve, B. Globe valve, C. Check valve, D. Non return valve

92. Which valve can be used repeatedly, because it can be repaired easily?

A. Gate valve, B. Globe valve, C. Check valve, D. Non return valve

93. Which joint is used to connect two lengths of pipes together in piping installations?

A. Universal joint, B. Cotter joint, C. Knuckle joint, D. Flange joint

94. The functions of the valves are -

A. Stop the flow in pipeline, B. Regulate the flow in pipe line

C. Stop or regulate the flow in pipeline, D. Connect the pipes

95. Which valve is used to obtain a fine degree of control over the flow in the pipe?

A. Gate valve, B. Glove valve, C. Check valve, D. Needle valve

96. Plug cocks are suitable for -

A. High pressure application, B. Medium pressure application,

C. Low pressure application, D. In all application

97. Which valves are safety devices?

A. Gate valve, B. Globe valve, C. Relief valve, D. Check valve

98. In which valve spring is used to close or open the valve?

A. Gate valve, B. Globe valve, C. Relief valve, D. Check valve

99. Which valve is a compression type valve?

A. Gate valve, B. Globe valve, C. Stop cock, D. Check valve

100. Which valve controls the flow of water by means of a circular metal disk holder?

A. Plug cock, B. Stop cock, C. Needle valve, D. Check valve

101. In which valve the flow of fluid or gas in one direction lifts the disc and allows one way flow only?

A. Gate valve, B. Globe valve, C. Non return valve, D. Needle valve

102. In which valve the flow of a fluid or gas in direction lifts the balls and allows one way flow?

A. One way flow check valve. Ball type check valve, C. Swing check valve D. Disc type check valve

103. Which part of the valve containing the rubber washer?

A. Stuffing box, B. Bonnet, C. Valve seat, D. Metal disk holder

104. Which part of the valve has soft graphite grease hemp packing?

A. Stuffing box, B. Bonnet, C. Valve seat, D. Metal disk holder

105 G.I iron pipes are available in sizes ranging from -

A.1/2 inch to 4 inch, B.1/2 inch to 5 inch, C.1/2 inch to 6 inch, D. 1/2 inch to 7 inch

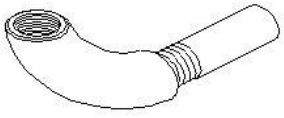
106. How much thread / inch, in a 1/2 inch pipe?

A. 12, B. 14, C. 16, D.18

107. How much thread / inch, in a 1 inch pipe?

A. 12, B. 14, C. 11, D. 08

108. What is the name of the pipe fitting?

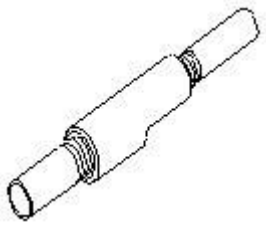


A. 45° elbow, B. Tee joint pipe, C. Short radius elbow, D. Long radius elbow.

109. What is the name of the pipe fitting?

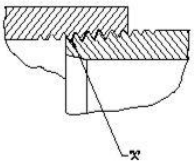
A .Tee joint, B. Eccentric reducer, C. Reducer tee joint, D. Concentric reducer.

110. What is the name of the pipe fitting?



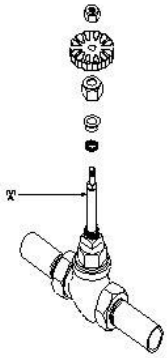
A. Coupling, B. Long nipple, C. Eccentric reducer, D. Concentric reducer.

111. What is the name of part marked as ‘x’ in the pipe joint?



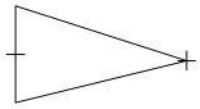
A. Outer pipe, B. Hemp packing, C. Tapered male thread, D. Parallel female thread.

112. What is the name of part marked as ‘x’?



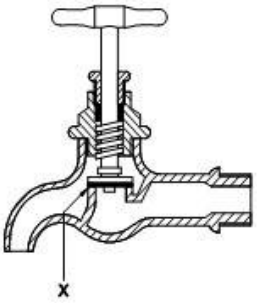
A. Bonnet, B. Packing, C. Gland nut, D. Shaft or spindle.

113. What is the name of pipe line symbol?



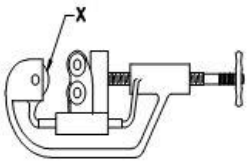
A. Socket, B. Plug or cap, C. Union screwed, D. Reducer concentric.

114. What is the name of part marked as ‘X’ in water tap?



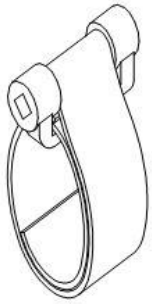
A. Handle, B. Bonnet, C. Gland nut, D. Valve seat.

115. What is the name of part marked as X?



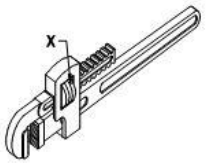
A. Cutter wheel, B. Adjusting screw, C. Guide rollers, D. Hand lever.

116.What is the type of wrench?



A. Footprint wrench, B. strap wrench, C. chain pipe wrench, D. pipe wrench.

117 What is the part marked as ‘x’?

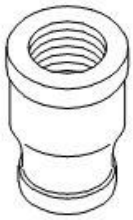


A. Pivot, B. Spring, C. Movable jaw, D. Adjusting nut.

118. What is the pipe fitting?

A. Reducer, B. Nipple, C. Cap, D. Plug.

119. What is the pipe fitting?



A. Caps, B. Plug, C. Coupling, D. Reducer.

120. 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°.

121. 206. 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.

122. What is the position of eccentric reducer are used in pipe lines?

A. Vertical position, B. Angular position, C. Radius position, D. Horizontal position.

123. 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.

124. How pipes are classified?

A. Uses, B. Colour, C. Shapes, D. Material.

125. Which standard pipe fitting is used to close a pipe line having internal thread?

A. Plug B. Cap C. Reducer, D. Coupling.

126. Which type of wrench is used for more than 50 mm diameter pipe to tight with heavy gripping?

A. Strap wrench, B. Foot print wrench, C. Chain pipe wrench, D. Stillson pipe wrench.

127. 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 worn out part, D. Renew the gland packing.

128. Which type of pipe joint take branch at 90°?
A. Coupling, B. Tee branch, C. Eccentric reducer, D. Concentric reducer.

129. What is the name of the plumber tool to assemble or dismantle pipes of 50 mm to 150 mm diameter?

A. Strap wrench, B. Chain pipe wrench, C. Stillson pipe wrench, D. Foot point pipe wrench.

130. 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, and D. Transparent visual testing.

131. Where concentric reducer is used in pipeline?

A. Vertical, B. Horizontal, C. Reduce the pressure, D. Drive the flow direction.

132. 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.

133. Which type of wrench is used on finished tubular surface?
A. Strap wrench, B. Foot point wrench, C. Chain pipe wrench, D. Stillson pipe wrench.

134. What is the capacity of the pipe vice to hold pipes diameter in mm?

A. 68 mm, B. 65 mm, C. 63 mm, D. 72 mm.

135. What is the minimum diameter of pipe used with chain wrench?

A. A .25 mm, B. 50 mm, C .30 mm, D ,45 mm .

136. What is the range of external pipe threads cut by pipe dies?

A. ½" to 4", B. ¼" to 4", C. 1/8" to 2", D. ¼" to 6".

137. Which pipe fitting is used to divert the flow direction of pipe?

A. Union, B. Plug, C. Elbow, D. Coupling.

813. What is the pipe fitting of 90° and its branches may be equal in diameter?

A. Tee joint, B. Elbow joint, C. Coupling joint, D. Union joint.

139. Which valve is used to control flow and is only kept in either open or closed position?

A. Gate valve, B. Globe valve, C. Needle valve, D. Non-return valve.

140. Where universal coupling is used?

A. Automobile vehicles, B. Textiles mills, C. Engineering machines, D. Large angle drive.

141. Which type of coupling is used on vehicle propeller shaft?
A .Plate coupling, B. Clamp coupling, C. Slip type coupling, D. Universal coupling.

142. What is the radius size for long radius elbow?
A. Equal the bore the pipe, B. 1 ½ times bore of the pipe C. 3 time bore of the pipe, D. 2 times bore of the pipe.

143. 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.

144. Which is used to divert at 45°in pipeline?
A. Elbow, B. Coupling, C. Reducer, D. Branch.

145. Which standard fitting is used for joining pipeline of different diameter?
A. Plug, .Caps, C. Reducer, D. Coupling.

146. What type of fitting is used in straight pipeline to connect two pipes of external threads?
A .Reducer, B. Coupling, C. Cap, D. Nipple.

147. What is the cause of water dripping from the tap even after closed?
A. Defective washer, B. Spindle thread worn-out, C. Bend spindle, D. Loose valve.

148. What causes loud noise in the tap if turned ON?
A. Spindle bend, B. Spindle thread worn-out, C. Stuffing box packing dry, D. Valve loose on spindle.

149. Which one of the following is not a type of valve?

A. Gate valve. B. Globe valve C. Ball valve D. Eccentric valve

150. Which of the part form the casing of a valve that holds the fluid going through the valve?

A. Body. B. Bonnet. C. Both (a) and (b) D. None of the above.

151. The internal elements of a valve are collectively referred to as a valve's_____

A. Stem B. Trim C. Seat D. Bonnet

152. When a gas of liquid is heated, it will _____

A. Contract. B. Stay the same C. Expand D. None of the above

153 Direct acting relief valves have ___ response as a pilot operated relief valve.

A. **Slower B. Same. C.Faster D. None of the above**

154. Pilot operated relief valves have_____ pressure override then as a direct acting relief Valve.

A. More. B. Less. C. Same

155. Solenoid operated relief valves can be made from_____

A. Direct acting relief valve B. Pilot operated relief valve

C. Either type relief valve D. None of the above

156. A vent port is found on _____

A. Pilot operated relief valve B. Direct acting relief valve

C. Both (a) and (b)

157. Diaphragm cylinders have _____

A. Small area and long strokes

C. Large area and short strokes

158. The impurities are removed from boiler with the help of _____

A. Safety valve. B. Stop valve C. Fusible plug

159 A device attached to the steam chest for preventing explosion due to excessive internal pressure of steam is called _____

A. Safety valve. B. Water level indicator C. Pressure gauge D. Fusible plug

160 Remote control valve is a kind of _____

A. Gate valve. B. Globe valve.

C. Needle valve. D. Butterfly valve

D None of the above

ANSWER: PIPE FITTING & VALVES

1.c 2.b 3.d. 4.a 5.b 6.c. 7.d. 8.c 9.b 10.a 11. C12.b 13.d 14.b 15.a 16.c 17.b 18.d 19.c 20.b 21.d 22.b. 23.b 24.A 25. b 26.a 27. B 28.c 29. A 30.c 31.(a) 32.b 33.c 34.a 35.c 36. D. 37.d 38.b 39.c 40.a 41.c 42.a 43.a 44.d 45.c 46.a 47.c 48.b 49.d 50.a. 51-A,52-B,53-C,54-A,55-C,56-A,57-B,58-C,59-A,60-C,61-D,62-D,63-B,64-C,65-A,66-C,67-A,68-A,69-D,70-C,71-A,72-C,73-B,74-D,75-A,76-A,77-D,78-B,79-C,80-D,81-A,82-B,83-B,84-B,85-B,86-C,87-B,88-C,89-B,90-B,91-B,92-B,93-D,94-C,95-D,96-A,97-C,98-C,99-C,100-B,101-C,102-B,103-D,104-A,105-C,106-B,107-C,108-A,109-C,110-C,111-B,112-D,113-D,114-D,115-A,116-B,117-D,118-C,119-D,120-A,121-D,122-D,123-B,124-D,125-A,126-C,127-C,128-B,129-B,130-A,131-A,132-C,133-A,134-C,135-B,136-B,137-C,138-A,139-A,140-A,141-B,142-B,143-B,144-A,145-C,146-B,147-A,148-D.149-D 150-C 151-B 152-C 153-C 154-A 155-B 156-A 157-C 158-D 159-A 160-D

POWER TRANSMISSION

1. What is the most common type of gear used?
   (a) Bevel gear (b) helical gear
   (b) Spur gear (d) none of the above
2. Which type of gear has teeth that are cut at an angle to the face of the gear?
   (a) Bevel gear (b) helical gear
   (b) Spur gear (d) none of the above
3. Which one of the following types of gears can have teeth that are straight, spiral or hypoid?
   (a) Bevel gears (b) helical gears
   (b) Spur gears (d) none of the above
4. Which type of gear would you use if a large gear reduction is required?
   (a) Hypoid gear (b) rack and pinion
   (b) Worm gear (d) none of the above
5. What type of gears is used to convert rotation into linear motion?
   (a) Rack and pinion gears
   (b) Bevel gears
   (c) Spur gear
   (d) None of the above
6. The velocity ratio of two pulleys connected by an open belt or closed belt is_____
   (a) Directly proportional to their diameters
   (b) Inversely proportional to their diameters
   (c) Directly proportional to the square of their diameters
   (d) Inversely proportional to the square of their diameters
7. Two pulleys of diameters d1 and d2 and at distance X apart are connected by means of open belt drive. The length of the belt is_____
   (a) π /2 (d1 + d2) 2x + (d1 + d2)2/4x
   (b) π /2 (d1 - d2) 2x + (d1 - d2)2/4x
   (c) π /2 (d1 + d2) 2x + (d1 - d2)2/4x
   (d) π /2 (d1 - d2) 2x + (d1 + d2)2/4x
8. In a cone pulley, the sum of radii of the pulleys on the driving and the driven shaft is constant then_____
   (a) Open belt drive is recommended
   (b) Cross belt drive is recommended
   (c) Both open and cross belt drives are recommended
   (d) The drive is recommended depending upon the torque transmitted
9. Due to slip of the belt, the velocity ratio of the belt drive_____
   (a) Decreases
   (b) Increases
   (c) Do not change
   (d) None of the above
10. When two pulleys of different diameters are connected by means of an open belt drive, then the angle of contact taken into consideration should be of the_____
    (a) Larger pulley
    (b) Smaller pulley
    (c) Average of the two pulleys
    (d) None of the above
11. Transmitting power without slip, which one of the following drives is used?

(a) Belt drive

(b) Rope drive

(c) Cone pulleys

(d) Chain drive

12. The distance between the hinge centre of link and the corresponding hinge centre of the adjacent link of a chain is called_____

(a) Pitch of the chain

(b) Bush roller chain

(c) Block chain

(d) None of the above

13. When the drive gear is larger than driven gear then the output is_____

(a) More speed

(b) More torque

(c) Less speed

(d) None of the above

14. Chain drives use_____

(a) Spur gears

(b) Sprockets

(c) Worm gears

(d) Idler gears

15. Rotary motion is_____

(a) Back and forth motion in a straight line

(b) Back and forth motion in a circle

(c) Movement in a straight line

(d) Motion in a circle

16. Which motion of the following is best for high speed cams?

(a) SHM follower motion

(b) Uniform acceleration and retardation of follower motion

(c) Cycloidal motion follower

(d) All of the above

17. A cam operating roller follower has the following dimension, radius of the base and nose circle as 15mm and 10 mm respectively distance between them is 8 mm. Determine lift made by the follower.

(a) 5mm

(b) 12.5mm

(c) 3 mm

(d) 17mm

18. The size of a cam depends upon_____

(a) Base circle

(b) Pitch circle

(c) Prime circle

(d) Pitch curve

19. The angle between the direction of the follower motion and a normal to the pitch curve is called_____

(a) Pitch angle

(b) Prime angle

(c) Base angle

(d) Pressure angle

20. The cam follower generally used in automobiles engine is _____

(a) knife edge follower

(b) Flat faced follower

(c) Spiracle faced follower

(d) Roller follower

21. Low and moderate speed engines, the cam follower should movie with_____

(a) Uniform velocity

(b) Simple harmonic motion

(c) Uniform acceleration and retardation

(d) Cycloidal motion

22. Which type of motion is a pendulum in a clock?

(a) Oscillating motion

(b) Linear motion

(c) Rotary motion

(d) Reciprocating motion

23. An open drive belt will cause two pulleys to turn in the same direction. what effect will a crossed driving belt have on two pulleys?
    (a) A crossed driving belt will cause two pulleys to turn in opposite direction
    (b) A crossed driving belt will cause two pulleys to turn in the same direction
    (c) A crossed driving belt will cause two pulleys to cancel each other out
    (d) None of the above
24. A number of gears connected together are called_____
    (a) Gear system
    (b) Gear tram
    (c) Gear train
    (d) Worm gear
25. Which one of the following hits NOT the advantage of helical gears?
    (a) Smooth operation
    (b) Lesser load carrying capacity
    (c) Greater load carrying capacity
    (d) Noiseless running
26. To cut 38 teeth on a helical gear having an angle of 45 degree, which cotton number should be used?
    (a) πM
    (b) N M
    (c) PDN
    (d) NM
27. Which one of the following is the metric helical gear proportion for real module (M)?
    (a) 10/N
    (b) 20/N
    (c) 30/N
    (d) 40/N
28. Which one of the following in metric helical gear proportion for indexing movement?
    (a) 0.157/NDP
    (b) 1.157/NDP
    (c) 2.157/NDP
    (d) 3.157/NDP
29. Which one of the following is English helical gear proportion for clearance (C)?
    (a) Addendum angle
    (b) Dedendum angle
    (c) Pitch cone angle
    (d) Shaft angle
30. It is the angle between the pitch cone generator and the root surface of the tooth space. For which bevel gear element is the definition?
    (a) Street tooth bevel gears
    (b) Spiral bevel gears
    (c) Hypoid gears
    (d) None of the above
31. Which one of the following types of bevel gears is mainly used in automobiles drive ?
    (a) Addendum
    (b) Dedendum
    (c) Whole depth
    (d) Tooth thickness
32. '2.25m' is given as proposition for straight teeth rack. For which element is this the proportion?
    (a) Addendum
    (b) Dedendum
    (c) Whole depth
    (d) Tooth thickness

33. To cur straight teeth rack if module (m)=3 and number of teeth =20, the length of rack will be_____

(a) 75mm

(b) 135mm

(c) 94.2mm

(d) 188mm

34. 'mZ2" is given as proportion of worm wheel. For which element is this the proportion?_____

(a) Addendum

(b) Dedendum

(c) Pitch diameter

(d) Throat diameter

35. Which flat belt drive system has two pulleys mounted on driven shaft and one pulley on driving shaft? *

a) Multiple belt drive

b) Cone pulley drive

c) Fast and loose pulley drive

d) None of the above

36. Which of the following are used to run chains? *

a) Trunions

b) Couplings

c) Sprockets

d) Splines

37. In a 'V' belt the angle between the side is .....

a) 10° b) 20° c) 30° d) 40°

38. If, in a belt drive, the sense of rotation of both the pulleys is the same, the drive used is

a) open belt drive

b) Cross belt drive

c) Open or cross belt drive

d) neither open not cross belt drive

39. Which one of the following statements is NOT true about cross belt drive?

a) Belts wear very fast

b) Pulleys rotate in opposite directions

c) Belt angle on both the pulleys is equal

d) Used for transmission of speed at high power

40. In belt drive, pulleys are made a slightly convex surface (rather than flat). This convex surface is called

a) Peak b) spot c) crown d) hump

41. Which one of the following statements is NOT true about timing belts?

a) They are toothed belts.

b) The driving and driven shafts remain synchronized.

c) There is no slippage.

d) They make too much noise.

42. Which one of the following belt materials can withstand acidic and wet conditions?

a) Leather b) Balata c) Rubber d) Cotton

43. In a belt drive, the outer surface of the pulley is made in convex form. Which one of the following statements is NOT true about this convex surface? *

a) It causes excessive belt wear.

b) It prevents the belt from slipping from the edge of the pulley.

c) It keeps the belt in the centre when it is in movement.

d) It is called crown.

44. Which of the following statements are false for belt drives?

1) Belt drive is used in applications having constant speed drive

2) Belt drives can be used at extremely high speeds

3) Belt drives have low power transmitting capacity

4)Belt drives need continuous lubrication

a. 1 and 2 b. 1, 2 and 3 c. 2, 3 and 4

d. 1, 2 and 4

45. What is the purpose of using steel chains?

a) To avoid slipping b) To avoid friction c) To avoid accelerated motion d) To avoid jerks

46. The toothed wheels in chain drives are known as _____

a) Sprockets b) Sprockers c) V-belt d) V- chain

47. Which of the following is true regarding chain drives?

a) The chain drives may be used when the distance between the shafts is less.

b) The production cost of chains is relatively low.

c) The chain drive needs low maintenance.

d) The chain drive has no velocity fluctuations.

48. The diameter of the circle on which the hinge centers of the chain lie is known as _____

a) Pitch b) Pitch circle diameter c) Sprocket length

d) Sprocket diameter.

49. Which of the following chain is used to provide elevation continuously?

a) Conveyor chains b) Power transmitting chains c) Hoisting chains d) Hauling chains

50. Which of the following chains are used for transmission of power, when the distance between the centers of shafts is short?

a) Chain with oval links b) Closed joint chain

c) Detachable chain

d) Block chain

51. Which flat belt drive system has two pulleys mounted on driven shaft and one pulley on driving shaft? *

b) Multiple belt drive b) Cone pulley drive

c) Fast and loose pulley drive

e) None of the above

52. Which of the following are used to run chains? *

b) unions b) Couplings c) Sprockets d) Splines

53. In a 'V' belt the angle between the side is .....

b) 10° b) 20°

c) 30° d) 40°

54.If, in a belt drive, the sense of rotation of both the pulleys is the same, the drive used is

b) open belt drive b) cross belt drive

c) open or cross belt drive

e) neither open not cross belt drive

55. Which one of the following statements is NOT true about cross belt drive?

e) Belts wear very fast

f) Pulleys rotate in opposite directions

g) Belt angle on both the pulleys is equal

h) Used for transmission of speed at high power

56. In belt drive, pulleys are made a slightly convex surface (rather than flat). This convex surface is called

b) Peak b) spot c) crown d) hump

57. Which one of the following statements is NOT true about timing belts?

e) They are toothed belts.
f) The driving and driven shafts remain synchronized.
g) There is no slippage.
h) They make too much noise.

58. Which one of the following belt materials can withstand acidic and wet conditions?

b) Leather b) Balata c) Rubber d) Cotton

59. In a belt drive, the outer surface of the pulley is made in convex form. Which one of the following statements is NOT true about this convex surface? *

e) It causes excessive belt wear.
f) It prevents the belt from slipping from the edge of the pulley.
g) It keeps the belt in the centre when it is in movement.
h) It is called crown.

60. Which of the following statements are false for belt drives?

1. Belt drive is used in applications having constant speed drive
2. Belt drives can be used at extremely high speeds
3. Belt drives have low power transmitting capacity
4. Belt drives need continuous lubrication

a. 1 and 2 b. 1, 2 and 3
d. 1, 2 and 4

61. What is the purpose of using steel chains?

a) To avoid slipping b) To avoid friction c) To avoid accelerated motion d) To avoid jerks

62) The toothed wheels in chain drives are known as _____

a) Sprockets b) Sprockers
c) V-belt d) V- chain

63. Which of the following is true regarding chain drives?

a) The chain drives may be used when the distance between the shafts is less.
b) The production cost of chains is relatively low.
c) The chain drive needs low maintenance.
d) The chain drive has no velocity fluctuations.

64. The diameter of the circle on which the hinge centers of the chain lie is known as _____

a) Pitch b) Pitch circle diameter c) Sprocket length
d) Sprocket diameter.

65. Which of the following chain is used to provide elevation continuously?

a) Conveyor chains b) Power transmitting chains c) Hoisting chains
d) Hauling chains

66. Which of the following chains are used for transmission of power, when the distance between the centers of shafts is short?

a) Chain with oval links b) Closed joint chain
c) Detachable chain
d) Block chain

67.The centrifugal tension in belts

a) increases power transmitted
b) decreases power transmitted
c) have no effect on the power transmitted
d) increases power transmitted up to a certain speed and then decreases

68.n a cone pulley, if the sum of radii of the pulleys on the driving and driven shafts is constant, then

a) open belt drive is recommended
b) crossed belt drive is recommended
c) both open belt drive and crossed belt drive is recommended
d) the drive is recommended depending upon the torque transmitted

69. When two pulleys of different diameters are connected by means of an open belt, the angle of contact at the _____pulley must be taken into consideration.

a) Smaller b) larger c) medium d) none of the mentioned

70. The power transmitted by a belt is maximum when the maximum tension in the belt is _____of centrifugal tension.

a) one-third b) two-third

c) double d) three times

71) The advantages of the V-belt drive over flat belt drive are
a) The V-belt drive gives compactness due to the small distance between the centers of pulleys.
b) The drive is positive, because the slip between the belt and the pulley groove is negligible.
c) Since the V-belts are made endless and there is no joint trouble, therefore the drive is smooth.
d) all of the mentioned

72. The disadvantages of the V-belt drive over flat belt drive are
a) The V-belt drive cannot be used with large centre distances.
b) The V-belts are not so durable as flat belts.
c) The construction of pulleys for V-belts is more complicated than pulleys for flat belts.
d) all of the mentioned

73. The advantages of the V-belt drive over flat belt drive are
a) It provides longer life, 3 to 5 years.
b) It can be easily installed and removed.
c) The operation of the belt and pulley is quiet.
d) all of the mentioned

74. The disadvantages of the V-belt drive over flat belt drive are

a) Since the V-belts are subjected to certain amount of creep, therefore these are not suitable for constant speed application such as synchronous machines, and timing devices.
b) The belt life is greatly influenced with temperature changes, improper belt tension and mismatching of belt lengths.
c) The centrifugal tension prevents the use of V-belts at speeds below 5 m/s and above 50m/s.
d) all of the mentioned

75. Which one of the following is a positive drive?

a) Crossed flat belt drive b) Rope drive
c) V-belt drive d) Chain drive

76. The chain drive transmits _____ power as compared to belt drive.

a) more b) less c) equald) none of the mentioned

77. Which type of gear drive changes rotary movement to linear movement?

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

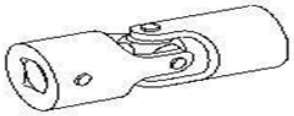
78. Why the small steel wedge is tapped under the machine in lifting operation?

A. To prevent vibration B. To reduce the weight
C. To accept the crowbar D. To balance the machine

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

A. By sliding the pulley B. By fixing idler pulley
C. By adjusting the length of belt D. By adjusting the screw of pulley

80.What is the name of the coupling?



A. Slip coupling B. Plate coupling
C. Clamp coupling D. Universal coupling

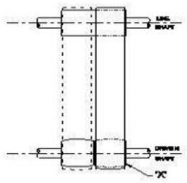
81. Why the face of pulley is “Crowned” in power transmission?

A. Increase the tension
B. Decrease the tension
C. Keep the belt centralized
D. Allow the pulley free rotation

82. Which graphical representation of the activities performed during manufacturing?

A. Job card
B. Process chart
C. Batch record form
D. Batch processing form

83. What is the name of the part marked X in fast and loose pulley assembly?



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

84. Which coupling is used in the place for slight relative movement is required?

A. Chain coupling
B. Flange coupling
C. Flexible coupling
D. Muff coupling

85. Which is the imaginary circle on two matting gears?

A. Root circle
B. Pitch circle
C. Base circle
D. Addendum circle

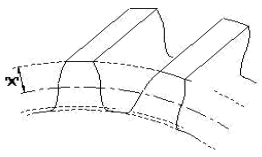
86. What is the name of radial distance between the pitch circle and root circle in gears?

A. Land
B. Addendum
C. Dedendum
D. Working depth

87. 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

88. What is the name of the part marked as ‘x’ of gear?

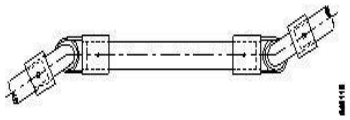


A. Flank
B. Addendum
C. Face width
D. Root circle

89. Which is the following designed to operate at 90 degrees.

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

90. What is the name of the coupling?

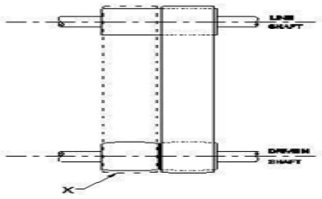


A. Slip coupling
B. Plate coupling
C. Clamp coupling
D. Universal coupling

91. Which ore is extraction of aluminium?

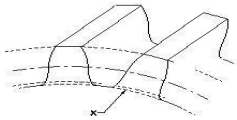
A. Pyrites
B. Galena
C. Blends
D. Bauxite

92. What is the part marked as ‘x’



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

93. What is the name for elements of gear marked X ?



A. Flank
B. Root circle
C. Face width
D. Addendum

94. What is the purpose of jockey pulley in belt drive?

A. To maintain the tension
B. To decrease the tension
C. Keep the belt centralized
D. Allow free rotation of pulley

95. Which power drive will transmit motion at constant velocity without creep and slippage?

A. Rope drive
B. Gear drive
C. Pulley drive
D. Chain drive

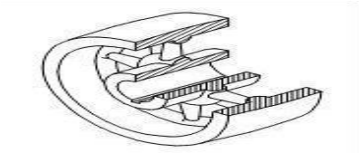
96. Which coupling provides rigid connection between two shafts?

A. Fast coupling
B. Clamp coupling
C. Safety coupling
D. Universal coupling

97. Which pulley can transmit the power to shaft different heights and at varying distance?

A. Flat pulleys
B. Rope pulleys
C. V groove pulleys
D. Fast and loose pulleys

98. What is the name of pulley?



A. Step pulley
B. Flat pulley
C. V groove pulley
D. Fast and loose pulley

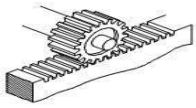
99. Which gear run more silently?

A. Spur gear
B. Mitre gear
C. Bevel gear
D. Helical gear

100. Which documentation record is used to know batch number, date of allocation, products identify and size of batch?

A. Processing chart
B. Job card
C. Operation flowchart
D. Batch processing record

101. What is the name the of gear mechanism?



A. Mitre gear
B. Bevel gear
C. Rack and pinion
D. Worm and worm gear

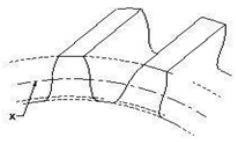
102 Which coupling will have disengaging provision?

A. Clamp coupling
B. Slip type coupling
C. Universal coupling
D. Plate coupling

103. Which drive is used for long distance and larger amount of power transmission?

A. Belt drive
B. Gear drive
C. Rope drive
D. Chain drive

104. What is the marked as 'X' in gear?

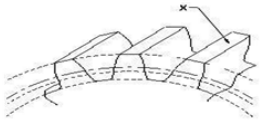


A. Root circle
B. Base circle
C. Pitch circle
D. Outside circle

105. Which gear is symmetrical to each other and transmit motion at right angle?

A. Spur gear
B. Mitre gear
C. Helical gear
D. Hypoid gear

106. What is marked as ‘X’ in gear?



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

107. How the shifting of belt is enabled from fast to loose pulley?

A. By crowned face of pulley
B. By sliding the loose pulley
C. By adjusting the tension of belt
D. By belt dressing

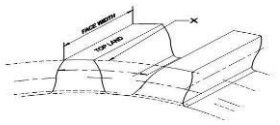
108 Where helical gears are used?

A. Lathe machine
B. Drilling machine
C. Grinding machine
D. Automobile vehicles

109. Where universal coupling used?

A. Textiles mills
B. Large angle drive
C. Automobile vehicles
D. Engineering machines

110. What is the element of gear marked as ‘X’?

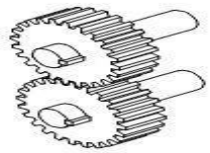


A. Pitch line
B. Face width
C. Addendum circle
D. Dedendum circle

111. Which type of drive is used for shortest distance and for large amount of power transmission?

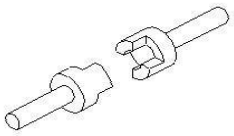
A. Belt drives
B. Gear drive
C. Rope drives
D. Chain drives

112. What is the name of gear?



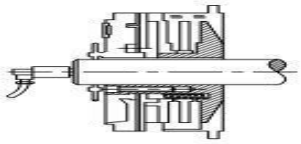
A. Spur gear
B. Mitre gear
C. Bevel gear
D. Hypoid gear

113. What is the name of the clutch?



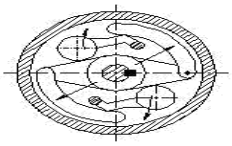
A. Cone clutch
B. Single plate clutch
C. Air clutch
D. Dog clutch

114. What is the name of clutch?



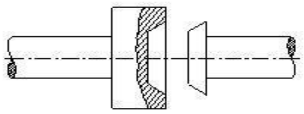
A. Air clutch
B. Multiplate
C. Cone clutch
D. Over riding clutch

115. What is the name of clutch?



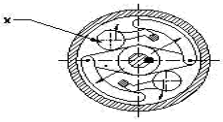
A. Air clutch
B. Cone clutch
C. Centrifugal clutch
D. Overriding clutch

116. What is the name of the clutch?



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

117. What is the name of the part marked as 'X'?



A. Inner piece
B. Outer piece
C. Rubbing surface
D. Centrifugal weight

118. Shifting of power machine from one place to another place is known as _____?

A. Power transmission
B. Electric power
C. Working system
D. All of these

119. Pulley fitted on motor shaft is called _____ pulley ?

A. Wood pulley B. Time pulley
C. Split pulley D. All of these

120 Running of many machines by one motor in the workshop is called _____ drive ?

A. Single B. Double
C. Group D. All of these

121. The size of plate belt is measured from its width and _____?

A. Thickness B. Length
C. Weight D. All of these

122. Round belt used in _____ pulley ?

A. Split B. Two piece
C. Half round groove D. Round pulley

123. In very long distance drive _____ is used ?

A. Rope drive B. Belt drive
C. Gear drive D. Chain drive

124. Drum pulley has more _____?

A. Width of face B. Crowning of pulley
C. Tension of belt D. All of these

125. The face pulley is in _____ shape ?

A. Convex B. Concave
C. Taper D. Elliptically

126. Ball in ball bearing produces motion speed by _____?

A. Power B. Friction
C. Puss D. All of these

127. Line shift is also called _____?

A. Short shaft B. Sub shaft
C. Main shaft D. All of these

128. Spline is used where _____ is more ?

A. Shaft B. Cotter pin
C. Split pin D. Serrited

129. To connect and disconnect two shafts frequently _____ coupling is used ?

A. Loose B. Fast
C. Fixed D. All of these

130 In scooter _____ coupling is used ?

A. Safety B. Flexible
C. Muff D. Friction plate

131. Power is transmitted from one shaft to another shaft by belt on _____?

A. Gear B. Chain

C. Pulley D. All of these

132. Gear drive is a kind of _____ drive?

A. Negative B. Positive

C. Neutral D. All of these

133. Worm gear is used with _____?

A. Bevel B. Metre

C. Worm D. Helical

134. Oldhems is a _____ coupling?

A. Safety B. Flexible

C. Muff D. Claw

135. Pitch scale of gear is _____circle?

A. Major B. Minor

C. Effective D. Periphery

136. _____ system of power transmission there is no slipness?

A. By rope B. By chain

C. By gear D. By belt

137. Chain drive is used in _____?

A . Increase power B. Chain link

C. Misalignment D. Coupling

138. _____ is used to protect from slipping in place of belt?

A. Step pulley B. “V” groove pulley

C. Drum pulley D. Jockey pulley

139 Gear of set used in lathe machines is called _____?

A. Intermediate gear B. Gear train

C. Bevel gear D. Spur gear

140. _____ method is used for power transmission in cotton mill?

A. Cam B. Friction

C. Rope D. Clutch

141. Which power transmission has slippage?

A. In gears B. In chains

C. In sprockets D. In belts

142. At what angle groove is made on "V" groove pulley_____?

A. 60° B. 45°

C. 40° D. 30°

143.. What is speed ratio of teeth in big wheel is 50 and small wheel 25 _____?

A. ½ B. 1250

C. 2 D. None of these

144. How much technical capacity chain and sprocket gives _____?

A. 50% B. 70%

C. 80% D. 98%

145. Which device is used to give support to lengthy shaft _____?

A. Gear B. Bearing

C. Clutch D. Capacity

146. Third gear is used to rotate two gears in one direction and that is called _____?

A. Idler gear B. Bevel gear

C. Rake and pinion D. Spur gear

147. Pulley fitted on motor shaft or spindle is called ……. Pulley.

(a) Driver (b) Driven

(c) Jockey (d) All of these

148. Pulley rotates in belt drive by …….

(a) Friction (b) Power

(c) Drive pulley (d) Driven pulley

149. Two idler pulleys is in ……..belt drive.

(a) Acute angle (b) Obtuse angle

(c) Right angle (d) All of these

150. Convex face of pulley is called ……

(a) Convex shape (b) Concave shape

(c) Crowning (d) Round shape

151. The …… pulley is used to drive a machine on different speed.

(a) Jockey (b) Step

(c) Split (d) Round

152. "V" belt is available in ……. And internal periphery size.

(a) Split (b) Jockey

(c) Cross section (d) Adjustable

153. From crowning belt and …….. is in centre.

(a) Rope (b) Belt

(c) Chain (d) Pulley

154. In half muff coupling the diameter and length of muff is equal to …….

(a) Shaft (b) Cotter pin

(c) Split pin (d) Seritted

155. Male cone on one shaft and …….. on second shaft is fitted in cone friction clutch.

(a) Female cone (b) Unnecessary

(c) All cone (d) None of these

156. Grooves are made on the face of a ……. Clutch.

(a) Flexible (b) Safety

(c) Muff (d) Claw

157. Circular pitch of gear is measured on ……. In round.

(a) Dia circle (b) Pitch circle

(c) Major circle (d) Minor circle

158. ……. Coupling has two flanges having holes in it.

(a) Flanged (b) Washer

(c) Cotter (d) Dome

159. Flexible coupling can bear ……

(a) Power (b) Friction

(c) Strokes (d) All of these

160. Pressure angle of gear teeth is normally ……

(a) 14 ½" (b) 10"

(c) 12 ½" (d) 13 ½"

161. …… is to be used where machine has to switch on or off frequently.

(a) Drum pulley (b) Jockey pulley

(c) Loose and fast pulley (d) Step pulley

162. …….. is used for power transmission at 90^0 angle.

(a) Bevel gear (b) Helical gear

(c) Spur gear (d) Rake and pinion

163. Gear used in sliding machines …….

(a) Bevel gear (b) Rake and pinion

(c) Helical gear (d) Spur gear

164. Gear is used in Indexim Instrument ……..

(a) Helical gear (b) Spur gear

(C) Worm gear (d) Worm wheel gear

165. Follower is a……..

(a) Moving part (b) Feeder

(c) Gear train (d) Idler gear

166. Which part of gear having height of teeth on pitch circular of gear……..

(a) Module (b) Addendum

(c) Dedendum (d) Chordal pitch

167. …… method is used for power transmission in cotton mill.

(a) Cam (b) Friction

(c) Rope (d) Clutch

168. When the applied loading is always in one direction the type of thread preferred is_____

(a) Acme (B) Square

(c) BSW (D) Buttress

169. Which type of thread is considered strong and frequently used for power transmission?

A. BSW B. BSF

C. Acme D. Buttress

179. If it is required to bring the driven shaft to spend in a gradual manner, which type of device will be used?

A. Coupling B. Clutch

C. Gear D. Belt drive

171. If in a belt drive the sense of rotation of both the pulleys is the same, the drive used is

A. open belt drive B. cross belt drive

C. Both A & B D. None of these

172 Which one of the following statements is NOT true about cross belt drive?

A. Pulley rotate in opposite directions

B. Belt angle on both the pulleys is equal

C. Belt wear very fast

D. Used for transmission of speed at high power

173. In belt drive, pulleys are made a slightly convex surface (rather than flat). This convex surface is called

A. Hump B. Peak

C. Crown D. Spot

174. Which one of the following statements is not true about timing belts?

A. they make too much noise.

B. They are toothed belts.

C. There is no slippage. D. The driving and driven shafts remain synchronized.

175. Which one of the following belt materials can withstand acidic and wet conditions?

a. leather b. balata

c. cotton d. rubber

176. In a belt drive, the outer surface of the pulley is made in convex form. Which one of the following statements is not true about this convex surface?

a. It is called crown

b. It keep the belt in the centre when it is in movement.

c. it causes excessive belt wear

d. It prevents the belt from slipping from the edge of the pulley.

177. Fast and loose pulley drive configuration is used when

a. distance between driving and drive shaft is too large

b. velocity ratio is too large

c. it required to start or stop driven shaft without disturbing driving shaft

d. low noise is required

178 An example of use of stepped pulley drive is in

a. Lathe b. Milling machine

c. Shaper d. Planer

179. Which one of the following statements is not true about coupling?

a. it connects two in-line shaft

b. it can be rigid or flexible

c. it drives driving and driven shafts at same speed

d. it can engage and disengage driving and driven shafts as a normal operation

180. It is a long cylindrical coupling bored and keyed to fit over both shafts. It is called

a. rigid coupling b. Muff coupling

c. spider coupling d. fluid coupling

181. Which one of the following types of couplings gives a soft start?

a. rigid coupling b. muff coupling

c. spider coupling d. fluid coupling

182. a coupling which has a yoke on each shaft is called

a. universal couple b. Muff coupling

b. rigid coupling d. Spider coupling

183. Which type of coupling is used in the propeller shaft of a vehicle?

a. spider coupling b. Universal couple

c. rigid coupling d. Fluid coupling

184. Normally a gear meshes with another gear. But gear can also mesh with a non-rotating toothed part called

a. rack b. worm

c. sheave d. yoke

185, When the situation is such that power has to be transmitted at an angle, the gear used are

a. spur gear b. helical gears

c. bevel gear d. herringbone gear

186. Herringbone gears resemble two …….gears that have been placed side by side

(a) spur (b) bevel

(c) helical (d) face

187. The sun and planet gearing used in differentials is of the type

(a) worm and worm wheel (b) rack and pinion

(C) hypoid (d) epicyclic

188. With worm-and-gear sets very high gear ratio can be obtained. It can be as high as

(a) 10:1 (b) 50:1

(c) 100:1 (d) 500:1

189. …… gears resemble spiral bevel gears except that the shaft axes do not intersect

(a) Hypoid (b) Worm

(c) Epicyclic (d) Face

190. Which of the following are used to run chains?

(a) Splines (b) Sprockets

(c) Couplings (d) Trunions

191. In a pair of gears the amount of clearance between mated gear teeth is called

(a) addendum (b) dedendum

(c) flank (d) backlash

192. In a gear, addendum+ dedendum is equal to

(a) whole depth (b) working depth

(c) nominal depth (d) standard depth

193. The radial distance between the pitch diameter and the outside diameter of a gear is called

(a) addendum (b) dedendum

(c) addendum + dedendum (d) addendum - dedendum

194. The accurate spacing of teeth in a gear blank requires the use of _____?

A. Dividing head B. An index plate

C. A differential mechanism D. Universal table

195. Helical gears can be cut on which type of milling machine ?

A. Plain B. Horizontal

C. Universal D. Drum type

196. Which clutch can be engaged progressively when one or both the elements are rotating ?

A. Single plate clutch B. Cone clutch

C. Centrifugal clutch D. Dog clutch

197. The radial distance between the pitch circle and the root circle is called _____ ?

A. Dedendum B. Addendum

C. Working depth of the teeth D. Whole depth of the teeth

198. What is the function of a dog clutch ?

A. It can be engaged progressively when one or both the elements are rotating

B. It can only be engaged when two elements of the clutch are stationary

C. When the speed is reduced the clutch opens by itself

D. Contact force is produced by springs

199. In which clutch, the pressure plate is used?

A. Multiple plate clutch B. Dog clutch

C. Over riding clutch D. Centrifugal clutch

200. Determine power rating of an electric motor if it runs at 1440 r.p.m. and line shaft transmits torque of 75 Nm. Assume reduction ratio?

A. 10.36 kW B. 11.3 kW

C. 7.068 kW D. 9.12 kW

201. In simple gear trains the direction of rotation of driven gear is opposite to the direction of rotation of driving gear only if _____ ?

A. Even number of idler gears are present B. Odd number of idler gears are present

C. Any number of idler gears are present D. None of these

202. Why is an idler gear used in gear trains?

A. To obtain minimum center distance between driving and driven shaft
B. To have required direction of rotation
C. Both a and b
D. None of these

203. Determine torque transmitted on the pinion shaft if torque transmitted on gear shaft is 20 Nm consider gear ratio =4

A. 8 Nm
B. 5 Nm
C. 80 Nm
D. 16 Nm

'204. Which of the following statements is/are true for gear drives ?

A. They can be used for long center distances
B. They are used to transmit power between non-intersecting and parallel shafts
C. They cannot be used for high reduction ratios
D. All of these

205. Which gears are used to connect two intersecting shaft axes?

A. Crossed helical gear
B. Worm and worm wheel
C. Bevel gears
D. All of these

206. What is meant by gear ratio ?

A. The ratio of pinion speed and gear speed
B. The ratio of number of teeth on pinion and number of teeth on gear
C. Both (a) and (b)
D. None of these

207. Transmission angle is the angle between _____?

A. Input link and coupler
B. Input link and fixed link
C. Output link and coupler
D. Output link and fixed link

208. Module of a gear is _____ ?

A. D/T
B. T/D
C. 2D/T
D. 2T/D

209. When bevel gears connect two shafts whose axes intersect at an angle greater than a right angle and one of the bevel gears has pitch angle of 90°, then they are known as _____?

A. Internal bevel gears
B. Angular bevel gears
C. Crown bevel gears
D. MITRE gears

210. Where a large speed reduction is desired, which type of a gear is used ?

A. Worm and worm wheel
B. Helical bone gear
C. Hypoid gear
D. Herringbone gear

211. Gears having their teeth element parallel to the rotating shafts are known as _____ ?

A. Worm gear
B. Spur gear
C. Helical gear
D. Herringbone gear

212. Clutch used to transmit less power is _____ ?

A. Plate clutch
B. Cone clutch
C. Dog clutch
D. Centrifugal clutch

213. Gear drive used to change rotary motion into linear motion is _____

A. Spur gear drive
B. Bevel gear drive
C. Worm and worm gear drive
D. Rack and pinion gear drive

214. Depth of teeth space below the itch circle in a gear is known as_____ ?

A. Dedendum B. Addendum
C. Crest D. Root

215. The size of gear is usually specified by _____?

A. Pressure angle B. Circular pitch
C. Diametrical pitch D. PCD

216. Radial distance of a gear tooth from the pitch circle to the top of the tooth is known ?

A. Addendum B. Dedendum
C. Module D. Pitch

217.. Pitch circle of gear & height of gear tooth is called _____?

A. Addendum B. Dedendum
C. Centre distance D. Face

218. Which gear arrangement is used to change the circular motion of horizontal to vertical without change in speed ratio?

A. Two spur gear B. Two helical gear
C. Two bevel gear D. Worm and worm gear

219. A gear wheel has 36 teeth and 3 mm module, its pitch diameter is?

A. 12 mm B. 75 mm
C. 80 mm D. 108 mm

220. The main purpose of using worm and worm wheel drives in machines and their accessories is to ?

A. Transmit large torque
B. Provide large speed reduction from worm shaft to worm wheel
C. Transmit higher speeds
D. provide large speed reduction from worm wheel to worm shaft

221. What is the name of part marked 'X' gear?

A. Face width B. Tooth depth
C. Addendum D. Dedendum

222. What is the name of gear drive?

A. MITRE gear B. Bevel gear
B. Helical gear D. Hypoid gear

223. Which gear is symmetrical to each other and is used to transmit motion at right angle?

A. Spur gear B. MITRE gear
C. Helical gear D. Hypoid gear

224. A flange coupling is used_____.

a. For intersecting shafts b. For collinear shafts

c. For small shafts rotating at slow speeds d. For parallel shafts

225. While designing a flange coupling, care is taken so that _____

a. Shaft is the weakest component b. Bolts are the weakest component

c. Key is the weakest component d. The flange is the weakest component

226. A bushed-pin type flange coupling is used

a. For intersecting shafts

b. When the shafts are not in exact alignment

c. For small shafts rotating at

d. For parallel shafts slow speeds |

227. A muff coupling is _____.

a. Rigid coupling b. Flexible coupling

c. Shock absorbing coupling d. None of the above

228. In case of clamp coupling, power is transmitted by means of _____.

a. Friction force b. Shear resistance

c. Crushing resistance d. None of the above

229. A pulley rigidly attached to a shaft is called a _____.

a. Loose pulley b. Fast pulley

c. Stepped pulley d. None of them g

230. _____ are grooved to carry one or more ropes by means of which power is transmitted to shafts at different heights and at varying distances.

a. Stepped pulley b. Jockey pulley

c. Rope pulley d. V-belt pulley

231. A_____is used when the speed of the driven shaft is to be changed very frequently as in the case of machine tools, such as lathe, drilling machine, etc.

a. Stepped cone pulley b. Split pulleys

c. Built up pulleys d. C.I belt pulleys

232. Choose the correct statement.

a. A machine can be easily stopped or started whenever required by the use of a pair of fast and loose pulleys.

b. When the driving belt from the main shaft is on the fast pulley, the counter-shaft is in motion.

c. If the belt is shifted from the fast pulley on to the loose pulley, the counter-shaft will stop rotating.

d. All are correct

233. In rope pulleys, the diameter of the pulley is kept at least _____times the diameter of the rope.

a. 5 b. 13

c. 15 d. 30

234. _____transmits power from engine to gearbox, gearbox to propeller shafts.

a. Gear b. Thread

c. Pipe joint d. Cam

235. In_____ teeth are cut parallel to the axis of the shaft.

a. Spur gears b. Helical gears

c. Double helical d. Herringbone gear

236. The radial distance from pitch circle to the outside diameter is _____.
a. Dedendum b. Addendum
c. Pitch d. None of the above
237. A circle representing imaginary friction wheels is known as _____.
a. Dedendum circle b. Addendum circle
c. Pitch circle d. None
238. The teeth of spur gears are _____to the axis.
a. Inclined and parallel b. Straight and parallel
c. Straight and inclined d. None of the above
239. The gear with smaller number of teeth in a gear train is called _____
a. Wheel b. Pinion
c. Rack d. None of the above
240. Gears are used in_____.
a. Watches b. Machines
c. Both the above d. None
241. In a gear, addendum + dedendum is equal to
a. Whole depth b. Working depth
c. Nominal depth d. Standard depth
242. The radial distance between the pitch diameter and outside diameter of a gear is called
a. Addendum b. Dedendum
c. Addendum + dedendum d. Addendum - dedendum
243. In a pair of gears the amount of clearance between mated gear teeth is called
a. Addendum b. Dedendum
c. Flank d. Backlash
244. In_____, teeth are cut an angle to the axis of the shaft.
a. Spur gears b. Helical gears
c. Double helical d. Herringbone gear
245 When the situation is such that power has to be transmitted at an angle, the gears used are.
a. Spur gears b. Helical gears
c. Bevel gears d. Herringbone gears
246. Herringbone gears resemble two _____ gears that have been placed side by side.
a. Spur b. Bevel
c. Helical d. Face
247. In which type of gear the teeth are cut at an angle to the axis of gear ?.
a. Spur gear b. Helical gear
c. Bevel gear d. Worm gear
248. In which among the following gearing the greater ratio may be implied ?.
a. Bevel gearing b. Spur gearing
c. Helical gearing d. Worm gearing
249. Helical gears are used in_____.
a. Steam turbines b. Watch
c. Cycle d. None of the above
250. Smooth and noiseless drive is better available in_____?
a. Spur gear b. Spiral gear
c. Bevel gear d. Rack and pinion

ANSWERS: **POWER TRANSMISSION**

1. (c) 2.(b) 3.(a) 4.(c) 5.(a) 6.(b) 7.(c) 8.(b) 9 .(a) 10.(b) 11.(d) 12.(a)13.(a) 14.(b) 15.(d) 16.(c) 17.(c) 18.(a)19.(d) 20.(c) 21.(b) 22.(a) 23.(a) 24.(c) 25.(b) 26.(b) 27.(c) 28.(d) 29.(a) 30.(b) 31.(c) 32.(c) 33.(c) 34.(d) 35.(c) 36.(c) 37.(a) 38.(a) 39.(d) 40.(c) 41.(d) 42.(b) 43.(a) 44.(d) 45.(a) 46.(a) 47.(b) 48.(a) 49.(a) 50.(d) 51-C, 52-C, 53-A,54-A, 55-D, 56-C, 57-D, 58-B, 59-A, 60-D, 61-A 62-A, 63-B, 64-A, 65-A, 66-D, 67-C, 68-B, 69-A, 70-D, 71-D,72-D,73-D,74-D,75-D,76-A

PULLEY, COUPLING ,GEAR & CLUTCHES

77.- C	78 C	79- B	80- B	81 - C	82-B	83-D
84- C	85- B	86-C	87-B	88- B	8 9-C	90- D
91-D	92-C	93- B	94- A	95– D	96-- A	97- B
98- B	99-D	100- B	101- C	102- C	103- C	104- C
105- B	106- B	107- C	108-D	109- C	110- C	111- B
112- A	113- B	114- A	115- C	116- B	117- D	118- A
119- B	120- C	121- A	122- C	123- A	124- A	125- A
126- B	127- C	128- A	129- A	130- D	131- C	132- B
133- C	134- B	135- C	136- C	137- C	138- B	139- B
140- C	141- D	142- B	143- C	144- D	145- B	146- A
147- D	148- A	149- C	150- C	151- B	152- C	153- D
154- A	155- A	156- D	157- B	158- A	159- C	160- A
161- C	162- B	163- B	164- C	165- A	166- B	167- C
168- D	169- C	170- B	171- A	172- D	173-- C	174- A
175- B	176-C	177-C	178-A	179-D	180-B	181-D
182-A	183-B	184-A	185-C	186-C	187-D	188-D
189-A	190-B	191-D	192-A	193-A	194-A	195-C
196-B	197-A	198-B	199-D	200-C	201-A	202-B
203-B	204-B	205-C	206-A	207-C	208-A	209-C
210-A	211-B	212-B	213-D	214-A	215-D	216-A
217-A	218-C	219-D	220-B	221-C	222-D	223-B
224-B	225-C	226-B	227-A	228-A	229-B	230-C
231-A	232-D	233-D	234-A	235--A	236-B	237-C
238-A	239-B	240-C	241-A	242-A	243--D	244-B
245-C	246-C	247-B	248-D	249-A	250-B	

CLAMPING AND HOLDING DEVICE

1. A device in which work piece is held and located for specific operation in such a way that it will guide more cutting tools to the same zone of machining is-

   A) jig B) fixture

   C) tail stock D) bracket

2. Which one of the bushes used in a drill jig permits tool of different diameter-

   A) press fit bush B) removable bushes (slip)

   C) fixed removable bushes D) liner bush

3. A point to point control system is suitable only for one of the following applications.

   A) drilling B) turning

   C) filling D) grinding

4. Which device hold, supports, locates and also guide the cutting too for operation?

   A) jig B) fixture

   C) machine vice D) chuck

5. Jig are preferred over fixture in which operation-

   A) milling B) turning

   C) knurling D) drilling

6. Jig are not use

   A) milling B) reaming

   C) tapping D) drilling

7. The purpose of jig and fixture is to-

   A) increase production rate B) increase machining accuracy

   C) facilitate interchangeable manufacturer D) all of these

8. The Jig, which doesn't have a base but can be set over the job to be drilled is called _____

   A) box jig B) sandwich jig

   C) channel jig D) trunnion jig

9. Which among the following is a locator used for location from internal diameter-

   A) solid supports B) pin type locator

   C) Vee locator D) nest locator

10. Which one of the following jigs consists of drill plate, which rest on the component to be drilled?

    A) solid jig B) plate jig

C) box jig D) trunnion jig

11. Tolerance on jig should be-

A) 5% of the tolerance on the job B) 10% of the tolerance on the job

C) 20 to 50% of the tolerance on the job D) 100% of the tolerance on the job

12. Which among the following jigs is used for location from a bore?

A) Solid jig B) plate jig

C) Box jig D) trunnion jig

13. Which one of following is used to guide the tool and hold the job in mass production?

A. Gauge B. Housing

C. Jig D. Fixture

14. Which one of the following is used to clamp the job in relation to the tool in mass production

A. Jig. B. fixture

C. Housing D. Gauge

15. Drill jig bushings are generally made of

A. mild steel B. Cast iron

C. Cast steel D. Tool steel

16. Lathe mandrels can be termed as a

A. jig B. Fixture

C. Gauge D. template

17. Which among the following jigs is used of location for a bore?

A. Plate jig B. Solid jig

C. Post jig D. Box jig

18. Which one of following jigs consists of drill plate, which rest on the component to be drilled?

A. Solid jig B Plate jig

C. Box jig D. Trunnion jig

19. Which among the following is a locator used for location from internal diameter?

A. Solid supports B. Pin type locator

C. Vee locator D. nest locator

20. Which jig is used for drilling on than sheets?

A. Solid jig B. Sandwich jig

C. post jig D. Table jig

21. A jig made from a single block of steel to drill small work piece is called

A. Channel jig B. Sandwich jig

C. Box jig D. Solid jig

22. Which one of the following bushings is used to locate the renewable bushings

A. Press fit bushing B. Liner Bushing

C. Special bushing D. Knurled bushing

23. Which one of the following device is used for the convenience of fabrication of a job by welding which is sate in this device so that it can be swivelled around 360 degree as per requirement?

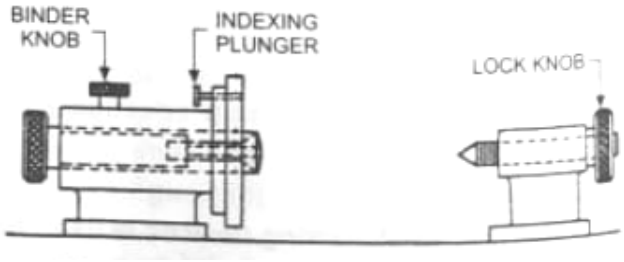
A. Gauge B. Template

C. jig D. Fixture

24. Which among the following locators is best suitable for location of a round shaped job?

A. Pin type locator B. wedge type locator

C. Vee locator D. Adjustable stop locator



25. Which among the following is a fixture as shown in fig?

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

26. Which one of the following is a jig bushing as shown in fig.

A. Press fit Bushing
B. Slip renewable bushing
C. limer bushing
D. Special bushing

27. which among the following is a locator used for location from internal diameter?

a) Solid supports b) Nest locator c) Pin type locator d) Vee locator

28. Jigs and fixtures are the production devices used to manufacture duplicates parts accurately. Which one of the following statements is NOT correct with respect to jig?

a) It holds the work piece. b) It holds the tool c) It locates the tool and the work piece d) It guides the tool

29. Jigs and Fixtures are used for

a) Mass production b) Identical parts production c) Both 'a' and 'b'
d) None of the above

30. The use of jigs and fixtures

a) Facilitates deployment of less skilled labour for production
b) Eliminates pre-machining operations like marking, measuring, laying out etc.
c) reduced manual handling operations
d) All of the above

31. The following is the function of a jig

a) Holding b) Locating c) Guiding d) All of the above

32. A fixture does not

a) Holds the work piece b) Locate the work piece c) Guide the tool
d) All of the above

33. Jigs are not used in

a) Tapping b) Reaming c) Drilling d) Milling

34. Fixtures are used in

a) Milling b) Shaping c) Turning d) All of the above

35. The following holds the work piece securely in a jig or fixture against the cutting forces

a) Guiding device b) Clamping device c) Indexing device
d) Locating device

36. The following is a quick acting clamp

a) Edge clamp b) Cam operated clamp c) Hinged clamp
d) Bridge clamp

37. IDENTIFY THE TYPE OF CLAMP USED IN FIXTURE

a) Heel clamp b) Bridge clamp c) Latch clamp d) Cam clamps

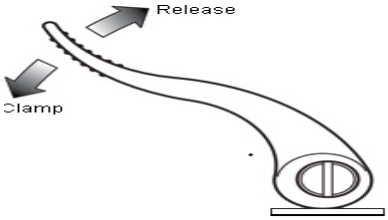
38. IDENTIFY THE TYPE OF CLAMP USED IN FIXTURE

a) Bridge clamp b) Cam clamps c) Heel clamp d) Latch clamp

39. IDENTIFY THE TYPE OF CLAMP USED IN FIXTURE5

a) Bridge clamp b) Cam clamps c) Latch clamp d) Heel clamp

40. IDENTIFY THE TYPE OF CLAMP USED IN FIXTURE5



a) Bridge clamp b) Heel clamp c) Cam clamps d) Latch clamp

41. The following material is commonly used for making locating and clamping devices

a) Die steel b) High speed steel c) Low carbon steel d) High carbon steel

42. The following type of jig is used for machining in more than one plane

a) Box type jig b) Open type jig c) Plate type jig d) Template jig

43. The jigs and fixtures can be constructed through

a) Casting b) Fabrication c) Welding d) All of the above

44. The device which place the work piece in the same position, in jig and fixture, cycle after cycle is called as

a) locating device b) fixing device c) placing device d) positioning device

45. Which fixtures are used for machining parts which must have machined details evenly spaced?

a) Profile fixtures b) Duplex fixtures c) Indexing fixtures d)None of the above

46. With the use of Jigs and fixture quality control expenses will

a) Reduce b) Increases c) Jigs and fixture are not used in any production process
d) None of the mentioned

47. Which one of the following is used to guide the tool and hold the job in mass production?

a) Fixture b) Gauge c) Jig d) Housing

48. Which one of the following is used to clamp the job in relation to the tool in mass production?

a) Housing b) Gauge c) Fixture d) Jig

49. Which among the following locators is best suitable for location of a round shaped job?
a) Wedge type locator b) Adjustable stop locator c) Vee locator
d). Pin type locator

50. Usually drill jig is not clamped to the drilling machine table. Which among the following is the reason for this?

a) It is rigid enough for this operation
b) It is a more time consuming device
c) It is easy for operation
d) Number of holes of various sizes are normally being drilled in different setting

51. Drill jig bushings are generally made of

a) Cast steel b) Tool steel c) Cast iron d) Mild steel

52. Which among the following is the purpose for providing bushing in a drill jig ?

a) For locating accurately and guiding the drill for precise drilling operation
b) For determining the size of the hole to be drilled
c) For getting good finished surface in the drilled holes
d) For easy drilling

53. Drill jig bushings are normally hardened to

a) Guide the tool so that it does not go inclined
b) Ensure prolonged life without wear and tear so as to guide the tool accurately
c) Protect the jig from damage
d) Allow the chips to come out easily

54. Plain drill jig bushings are generally secured in the body of jig so that the bushings should not

a) Rotate when the tool is rotating
b) Vibrate, rotate and be withdrawn while in operation.
c) Vibrate while in operation
d) Get withdrawn with the tool

55. Fixed renewable bushings are used when

a) Many a holes of various sizes are to be drilled on a jig in different settings
b) More than one operation has to be performed through the same location of the jig
c) One operation is to be performed in each hole but several bushings must be used during the life of the jig
d) No bushing change is required

56. Slip renewable bushings are used when

a) Many a hole of various sizes are to be drilled on a jig in different settings
b) More than one operation has to be performed through the same location on the jig
c) One operation is to be performed but several bushings must be used during the life of the jig
d) No bushing change is required

57. Which one of the following bushings is used to locate the renewable bushings?

a) Liner bushing b) Press fit bushing c) Special bushing
d) Knurled bushing

58. Tolerance on jig should be

a) 5% of the tolerance on the job
b) 10% of the tolerance on the job
c) 20 to 50% of the tolerance on the job
d) 100% of the tolerance on the job

59. Which among the following statements is NOT correct?

a) Jig is used for planning operations
b) Jig is used for boring operation
c) Jig is used for drilling operation
d) Jig is used for indexing operation

60. Lathe mandrels can be termed as a

a) Template b) Gauge c) Fixture d) Jig

61. Jig is a device which

a) Locates the work piece
b) Holds and supports the work piece
c) Guides the cutting tool
d) Does all the above

62. Drill jigs are used for

a) Guiding the tool only
b) Drilling operations only
c) Clamping the job when drilling
d) Drilling, reaming, tapping and other allied operations

63. Fixture is a production device which

a) Holds the work piece
b) Locates the work piece
c) Holds and locates the work piece
d) Neither holds nor locates the work piece

64. Which among the following jigs is used for location from a bore?

a) Solid jig b) Plate jig c) Box jig d) Post jig

65. Which one of the following jigs consists of drill plate, which rests on the component to be drilled?

a) Box Jig b) Plate Jig c) Post Jig d) Solid Jig

66. Which one of the following devices is used for the convenience of fabrication of a job by welding which is set in this 360° as per requirement?

a) Jig b) Fixture c) Gauge d) template

67. A fixture is a device used for …

a) guiding the tool b) loosening the work piece c) Holding the work piece
d) Tightening tool

68. Which of the following can hold the work, locate the work and guide the drill at the desired position?

a) Drill bush b) V-block c) Drill jig d) Drill fixture

69. Typical locating device for cylindrical job used in jigs and fixtures are.....

a) angle plate b) drill jigs c) mandrels d) v - blocks

70. V-block (vee locators) is used for clamping as well as locating when faces are inclined up to:

a) 12° b) 30° c) 9° d) 3°

71. Name the type of jig in which a base plate is not available,

a) Plate jig b) Latch jig c) Box jig d) Trunnion jig

72. The use of jigs and fixtures

a) Facilitates deployment of less skilled labour for production

b) Eliminates pre-machining operations like marking, measuring, laying out etc.

c) Reduces manual handling operations d) All of these

73. Fixtures are used in

a) Milling b) Shaping c) Turning d) All of these

74. The following holds the work piece securely in a jig or fixture against the cutting forces

a) Locating device b) Clamping device c) Guiding device d) Indexing device

75. The following material is commonly used for making locating and clamping devices

a) Die steel b) Low carbon steel c) High carbon steel d) High speed steel

76. The following type of jig suits best for drilling of holes in hollow cylindrical components, with relatively smaller outside and inside diameters, such as bushes

a) Solid type jig b) Open type jig c) Pot type jig d) Box type jig

77. The following type of jig is used to drill a series of equidistant hole along a circle

a) Plate type jig b) Index jig c) Open type jig d) Pot type jig

78. The jigs and fixtures can be constructed through

a) Casting b) Fabrication c) Welding d) All of these

79. Metal of drill jig bushing used

a) Cast iron b) Tool steel c) Mild steel d) Cast steel

80. A jig is special device.....

a) Which hold the job
b) Which locate the cutting tool
c) Which guide the tool
d) Which hold, support, and locate the job and guides the tool

81. A fixture is a production tool, that.....

a) Locates the component
b) Hold the component
c) Controls the cutting tool
d) Locates and holds the component

82. Which of the following can hold the work, locate the work and guide the tool at the desired position?

a) Drill bush b) Drill fixture c) V – block d) Drill jig

83. The application of pressure pads in fixtures is to .....

a) increase the vibration
b) increase the weight
c) absorb shocks
d) increase the shocks

84. Drilling jigs are used for.....

a) drilling, reaming tapping and other allied operations
b) clamping the job while drilling
c) sharpening drill to correct angle
d) drilling operation only

85. Jigs and Fixtures are ……..

a) Machining toolsb) Precision tools c) both (a) & (b) d) none of these

86. Bushing in jig is used …….

a) To locate and guide the tool b) To locate the tool
c) To guide the tool d) None of these

87. Fixture is used for …….

a) To hid the job b) To hold and locate the job c) To locate the job
d). None of these

88. Which jig is used for location in bore?

a) Solid Jigb) Box Jig c) Plate Jig d) Post Jig

89. To locate the renewable bushing in jig …….. Bush is used.

a) Liner b) Press Fit c) Knurled d) Special

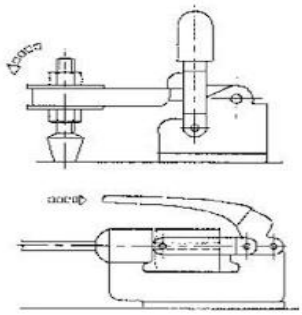
90. Which part of jig provides correct location to drill?

a) Liner Bush b) Guide Bush c) Jig plate d) Setting Block

91. Which jig is used for drilling in thin sheets?

a) Solid Jigb) Post Jig c) Sandwich Jig d) Table Jig

92. What is the name of clamp?



a) Cam clamp b) Wedge clamp c) Screw clamp d) Toggle clamp

93. Which device is used to hold, support, locate and also guide the cutting tool during machining operation?

a) Fixture b) Jig c) 'C' clamp d) Machine vice

94. What is the purpose of setting blocks used in fixture?

a) Position the fixture and work
b) Position the balancing weight
c) Position the cutter with fixture
d) Position the clamp and locators

95. This type of jig is employed on multi-spindle machines

(A) Index jig (B) Universal jig (C) Open type jig (D) Multi-station jig

ANSWER:- **CLAMPING AND HOLDING DEVICE**

1.A 2.B 3.A 4.A 5.D 6.A 7.D 8.C 9.B 10.B 11.C 12.C 13.C 14.B
15.D 16.B 17.C 18.B 19.B 20.B 21.D 22.B 23.D 24.C 25.C 26.B 27. C,
28.B, 29.C,30.D,31-D, 32.C, 33.D, 34. D,35. B,36.B, 37.B,38-D, 39.D, 40.C, 41.D, 42. A,43.D,44.A,45 -C,46-A, 47-C,48-C, 49-B,50-A,51-B,52-A,53--B,54.B,55.C,56.-B,57-A,58-C,59-A,60-C,61-D,62-D,63-C,64-D,65-B,66-B,67-B,68-C,69-D,70-B,71-A, 72-D,73-D,74-B,75-C,76-C,77-B,78-D,79-B,80-D,81-D,82-D,57-C,83-A,84-C,86-A,87-B,88-D,89-A,90-B,91-C,92-D,93-B,94-D,95-D,

GAUGE

1. Which one of the following instruments is used for checking large internal diameter?

A. Small hole gauge B. Telescopic gauge C. Pluge gauge D. Snap gauge

2. A taper ring gauge is used for checking?

A. External taper B. Internal taper C. External threads D. Internal threads

3. Thread ring gauge is used for checking?

A. External threads B. Internal threads C. External diameter of cylindrical job D. Internal diameter of jobs

4. Gauges are made of?

A. Mild steel B. Alloy steel C. Cast steel D. Cast iron

5. Taper plug gauge is used for checking?

A. Taper holes B. External diameter of cylindrical parts C. Internal diameter of cylindrical parts D. Diameter of straight holes

6. A plain ring gauge is used for checking

A. Taper holes B. External diameter of cylindrical parts C. Internal diameter of cylindrical parts D. Major diameter of external threads

7. A plug gauge which has its “Go” and “No Go” sizes on the same end is known as

A. Single ended plug gauge B. Double ended plug gauge C. Progressive plug gauge D. Continues plug gauge

8. Which one of the following gauges is used to align the lathe tool with the work

A. Try square B. Centre gauge C. Thread gauge D. Straight edge

9. Which one of the following gauges is used to check the threading tool of lathe for accuracy on the 60° angle

A. Screw pitch gauge B. Thread plug gauge C. Centre gauge D. Thread ring gauge

10. Centre gauge is used for

A. Check the profile of thread B. Checking the fit of thread C. Checking the pitch of the thread D. Set lathe tool at correct centre height

11. A feeler gauge is used for

A. Adjusting the parts for plays B. checking gap between matting part C. Checking radii of jobs D. Checking accuracy of holes

12. Clearance between metal parts is measured by

A. Caliper gauge B. Feeler gauge C.“Go” gauge D. Dial gauge

13. In an adjustable snap gauge, two adjustable jaws are provided on

A. Both sides B. One side C. One in each side D. None of the above

14. Which one of the following grade of gauge is used for checking the parts made by an operator in the workshop

A. Workshop gauge B. Inspection gauge C. Reference gauge D. None of the above

15. Which one of the following gauge is used for checking cylinder, which are not kept in vertical or horizontal position

A. Pilot gauge B. Snap gauge C. Ring gauge D. Plug gauge

16. In a taper plug gauge the “Go” and “No Go” size are denoted by a step on

A. The same side B. The either side C. The both sides D. Separately

17. Fixed type snap gauge have “Go” and “No Go” ends

A. The same side B. The either side C. The both sides D. Separately

18. At what standards temperature are the gauge kept in the section

A. 10°C B. 20°C C. 10°F D. 20°F

19. In the limit plug gauges, the dimension of NO GO end is equal to

A) minimum permissible dimension B) maximum permissible dimension C) same dimension D) half the dimension

20. “Go” side of the plug gauge will have the diameter equal to

A. Actual size of the job B. Basic size of the job C. Minimum size of the job D. Maximum size of the job

21. for general use in workshop slip gauge of which grade are used

A. Grade – 0 B. Grade – 1 C. Grade – 2 D. None of the above

22. The accuracy of reference gauge is

A. 0.05mm B. 0.01mm C. 0.001mm D. 0.0001mm

23. As per Indian standards a special set of slip gauge is used consisting of

A. 81 pieces B. 112 pieces C. 120 pieces D. 130 pieces

24. Grade-1 slip gauges are used in

A. Workshop by operator B. Inspection room C. Either ‘a’ or ‘b’ D. Neither ‘a’ nor ‘b’

25. Hardness of slip gauges should be?

A. More than 63 HRC B. 58 HRC C. 55 HRC D. 50 HRC

26. Gauge is used to measure the thickness of a wire or sheet?

A. Profile gauge B. Radius gauge C. Wire gauge D. Slip gauge

27. What is the full form of SWG with respect to wire measurement?

A. Supportive Wire Gauge B. Standard Wire Gauge C. Standard Wide Gauge D. Steel Wire Gauge

28 - Which of the following sentence is incorrect while taking care of slip gauges?

A. the slip gauge should not be stored in closed case B. prior to use, the slip gauge should be allowed to settle at prevailing room temperature C. fingerings of lapped face during the actual use should be avoided D. while wringing the gauge, standard procedure must be followed to Remove any air gap

29. The length of a sine bar is given by

A. the height of the sine bar B. the distance the distance between the centre of the rollers C. the distance between the end point of both rollers D. the distance the distance between the end point and centre of the rollers

30. Which of the following comparators can measure up to the accuracy of one 1 micron?

A. sigma comparator B. electronic comparator C. pneumatic comparator D. optical comparator

31. The other name of feeler gauge is

A) thickness gauge B) fillet gauge C) fillet weld gauge D) slip gauge

32. Clearance between mating parts is measured by

A) dial gauge B) go gauge C) feeler gauge D) calliper gauge

33. Number of threads per inch a screw or bolt is checked by

A) Vernier calliper B) dial gauge C) screw pitch gauge D) plug gauge

34. Sine bar is used to measure

A) angle of a tapered job B) angle between surface C) run out of job D) none of the above

35. Thread ring gauge are Used to check external thread separate 'go' and 'no go' getting members are provided which one of the following is true thread element is not checked with this ring gauge

A) pitch B) helix angle C) profile D) pitch diameter

36. Slip gauge are wrong to gather by_____

A) sliding motion only B) twisting motion only
C) Combined sliding and twisting motion D) curvilinear motion only

37. The gauge used to measure a fillet of a curved surface is

A) plug gauge B) radius gauge C) screw pitch gauge ‘D) planer gauge

38. A_____is used for inspecting cylindrical hole

A) snap gauge B) plug gauge C) ring gauge D) position gauge

39 . Which one of the following is not mentioned (marked) on the plug gauge

A) nominal size B) class of tolerance
C) Manufacturer name or trade mark D) material of the gauge

40. The gauge used to check the contour profile of a work peace is

A) form gauge B) weight gauge C) ring gauge D) position gauge

41. Which of the following grade of slip gauge is not specified by the

A) grade-00 B) grade-0 C) grade-1 D) grade-3

42. Which is not true for a wire gauge?

A) Used to measure the thickness of a wire
B) Each slots and holes in the disc is marked with its size
C) Steel disc in which number of holes and slots are provided
D) Used to measure electrical conductivity of wire

43. The number of which specify thickness of sheet metal is known as

A) Sheet size B) wire size C) gauge D) none of the above

44. Which one of the following statements is true for slip gauges?

A) metal block which are ground and lapped to a specific thickness B) used to measure surface finish C) used to measure fine air gaps between two surface D) slip gauge always gives error in desired length when stacked together

45 - Which grade slip gauge is used for precision tool room applications?

A) grade-00 B) grade-0 C) grade-1 D) grade-2

46 - What is the purpose of tapper ring gauge?

A) Check the outside thread. B) check the outside diameter
C) Check the ring holes diameter D) check the taper shaft diameter

47. What is the use of telescopic gauge?

A) Measure internal dimension B) measure external dimension

C) Measure size of hole, slot D) measure angular dimension

48. Which one of the gauges are used to check the accuracy of external thread

A) snap gauge B) taper ring gauge C) thread ring gauge D) plug gauge

49. What is the purpose of taper ring gauge?

A) Check the out side thread B) check the outside diameter

C) Check the ring holes diameter D) check the taper shaft diameter

50. Which one of the gauges are used to check the accuracy of internal thread

A) snap gauge B) taper ring gauge C) thread ring gauge D) thread plug gauge

51. A_____is used for inspecting cylindrical shaft

A) Snap gauge B) plug gauge C) ring gauge D) position gauge

52- What is the purpose of taper plug gauge?

A) Check the outside threads B) check the outside diameter

C) Check the ring holes diameter. D) Check the taper hole diameter

53. The flank angle and the form of fine screw thread can be checked by using an _____.

A) plug gauge B) optical projector C) thread micrometer D) nota

54. While setting angle with sine bar, which side of the right angle does the sine bar represent?

A) opposite side B) adjacent side C) hypotenuse side D) none of the above

55. What is the purpose of plug gauge?

A) Check the outside thread B) check the inside diameter

C) Check the ring holes diameter D) check the taper hole diameter

56. For measuring angles using the sine bar, the angle formed according to the ratio between the height of the slip gauges and the _____.

A) height of the sine bar B) number of slip gauge C) length of sine bar D) width of sine bar

57. The purpose of the holes provided on the sides of the sine bar is to____.

A) prevent distortion B) fix on angle plate C) handle easily D) minimise surface contact

58. Tool maker buttons are made of ____.

A) plastic B) bronze C) cast iron D) hardened steel

59. Fixed type of snap gauges will have

A) 'Go' & 'No Go' on either ends B) 'Go' & 'No go' on the same end.
C) 'Go' & 'No Go' separately D) 'Go' & 'No Go' on both ends.

60. For cleaning the measuring faces of slip gauges, the liquid used is

A) kerosene B) carbon tetra chlorophyll C) carbon tetra chloride D) soluble oil

61. Which of the following statements is correct?

a. Gauges used to check the size

b. Templates are used to check size

c. Gauges are used to measure the size

d. Gauges are used to check the shape of components

62. A filler gauge is used for

A. adjust the parts for play b .Checking gap between mating parts

C. checking the fit of thread d. checking the profile of thread

63. Centre gauge is used for ___

a. Setting the lathe tool at correct centre height b. checking the pitch of the thread

c. Checking the fit of thread d. checking the profile of thread

64. Which one of the following gauges is used to check the threading tool of lathe for accuracy on the 600 angle?

a. Screw pitch gauge b. Thread plug gauge

c. Centre gauge d. Thread ring gauge

65. Which of the following gauges is used to align the lathe tool with the work?

a. Try square b. Centre gauge

c. Thread gauge d. Straight gauge

66. A plug gauge which has its “GO” AND “NO GO” sizes on the same end is known as _____

a. Single ended plug gauge b. Double ended plug gauge

c. Progressive plug gauge d. Continuous plug gauge

67. A plain ring gauge is used for checking ____

a. Taper holes b. External diameter of cylindrical parts

c. Internal diameter of cylindrical parts d. Major diameter of External threads

68. Taper plug gauge is used for checking _____.

a. Taper holes b. External tapers of cylindrical parts

c. Minor diameter of internal threads d. Diameter of straight holes

69. Gauges are made of _____

a. Cast iron b. Cast steel

c. Alloy steel d. Mild steel

70. Thread ring gauge is used for checking _____

a. External threads b. internal thread

c. External diameter of cylindrical jobs d. internal diameter of jobs

71. A taper ring gauge is used for checking _____

a. External taper b. Internal taper

c. External thread d. internal thread

72. Which of the following instruments is used for checking large internal diameters?

a. Small whole gauge b. Telescopic gauge

c. Plug gauge d. Snap gauge

73.”Go “ side the plug gauge will have the diameter equal to _____.

a. Actual size of the job b. Basic size of the job

c. Minimum size of the job d. Maximum size of the job

74. At the standard temperature are the gauges kept the section?

a.10^0C b.20^0 C

c.10^0F d.20^0F

75. Fixed type snap gauges have “Go” and “No Go” end _____.

A. On both side b. The either side

c. On the same side d. separately

76. In a taper plug gauge the “Go and “No Go” sizes are donated by a step on

a. The same side b. The either side

c. The both sides d. separately

77. Which of the following gauges is used for checking cylinders, which are not kept in vertical or horizontal position?

a. Plug gauge b. Ring gauge

c. Snap gauge d. Pilot gauge

78. Which one of the following grade of gauges is used for checking the parts made by an operator in the workshops?

a. Workshop gauge b. Inspection gauge

c. Reference gauge d. None of these

79. In an adjustable snap gauge, two adjustable jaws are provide on

a. Both sides b. One side

c. One in each side d. None of these

80.”Go” and “No sizes of $25H_7$ plug gauge should be

A.24.958 mm (Go) and 25.023 mm (No Go)

B.25.023 mm (Go) and 24.958 mm (No Go)

C.24.977 mm (Go) and 25.042 mm (No Go)

D.25.042 mm (Go) and 24.977 mm (No Go)

81.”Go” and “No Go” sizes of 25h, snap gauge should be

A.24.977 mm (Go) and 25.002 mm (No Go)

B.24.958 mm (Go) and 25.023 mm (No Go)

C.24.958 mm (Go) and 25.023 mm (No Go)

D.24.958 mm (Go) and 25.023 mm (No Go

82. Clearance between mating parts is measured by

a. Dial gauge b.”Go” gauge

c. Feeler gauge d. Caliper gauge

83. Before wringing, the mating surfaces of slip gauges should be wiped clean with

a. Soft linen cloth b. Chamosie leather

c. Either (a) or (b) d. Neither (a) nor (b)

84. for general purpose in workshop, slip gauges of which grade are used?

A.Grade-0 b.Grade-1

C.Grade-2 d. none of these

85. Hardness of slip gauges should be

a. More than 63 HRC b.58 HRC

C.56 HRC d.50 HRC

86. Grade –I slip gauges are used in

a. Workshop by operator b. Inspection room

c. Either (a) or (b) d. Neither (a) nor (b)

87. As per Indian standards a special set of slip gauge is used consisting of

A.81 pieces b.112 pieces

C.120 pieces d.130 pieces

88. A sine bar is made with four or five equally – spaced holes on its body. The purpose of these holes is to

a. Handle the sine bar easily b. Reduce the weight of sine bar

c. Prevent distortion of the top surface d. Give good appearance to the sine bar

89. A sine bar is available in standard sizes. Which one of the following is NOT a standard size of the sine bar?

a.100 b.200

c.250 d.300

90. The accuracy of reference gauge is

A. 0.05 mm b.0.01 mm

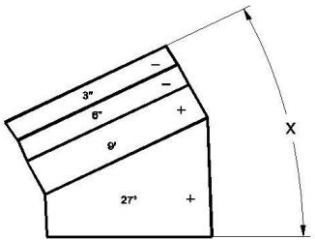
C.0.001 mm d.0.0001 mm

91. One of the precision instruments used to check the dimensional accuracy of an external 'V' thread, is a screw thread micrometer. Which one of the following elements of a screw thread is checked with screw thread micrometer?

a. Major diameter b. Minor diameter

c. Pitch diameter d. Pitch

92. What is the size of angle?



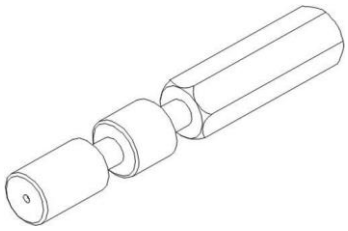
a) 27^0 8’ 9”

b) $26^0$8’ 9”

c) $27^0$8’ 5’’

d) $27^0$9’ 9’’

93. What is the type of gauge?



a) Ring gauge

b) Double ended plug gauge

c) Thread plug gauge

d) Progressive plug gauge

94. What is the name of the part marked as ‘X’ in the height gauge as shown in figure?

a) Main scale

b) Main slide

c) Jan lamp

d) Vernier scale

ANSWER: GAUGE

1. B 2.A 3.A 4. C. 5 A 6.b 7.c 8.b 9.c 10.d 11.b 12.b 13.b 14.a 15.a 16.a. 17.a 18.b 19.c 20.c

21.c 22.c 23.b 24.b 25.a 26.c 27.c 28.c 29.d 30.b 31.a 32. A 33.d 34.a 35.d 36.b 37.b 38.b

39.c 40.b 41.c 42.c 43. 44.d 45.a 46.d 47.b 48. B 49.a 50.a 51.b 52. D 53. C 54.B 55.d 56.c

57. B 58.d 59.b 60. C

61	a	62	b	63	a	64	c	65	b	66	c	67	b	68	a	69	c	70	a
71	a	72	b	73	c	74	b	75	c	76	a	77	d	78	a	79	b	80	a
81	b	82	c	83	c	84	c	85	a	86	b	87	b	88	a	89	d	90	c

91	c	92	c	93	d	94	b

MACHINE FOUNDATION

1) The curved end of a crowbar is used as
   a) First-class lever b) second-class lever
   c) third-class lever
   d) None of the above

2) Crowbars are also known as
   a) Press bars b) wedge bars c) pry bars
   d) Split bars

3) Why do masons prefer to use plumb bob with nylon string?
   a) It is cheap b) It is more accurate
   c) It can stand dampness
   d) It is easy to carry

4) Which one of the following is not a basic component of wire rope?
   a) Wires b) Strands c) Core d) Base

5) Preventive maintenance is
   a) The overall lubrication and repair work carried out by the maintenance section in advance of the machine coming to breakdown.
   b) The maintenance work for any fault noticed during working.
   c) Done to prevent the maintenance of machines.
   d) None of the above

6) Leveling bolts are used for
   a) Supporting the load for machine
   b) Adjusting the height of machine
   c) Rigidity of machine
   d) None of the above

7) Which one of the following tests is carried out after overhauling and reconditioning of machines?
   a) Periodic acceptance test
   b) Geometrical test only
   c) Performance test only
   c) None of the above

8) The permissible deviation for leveling of machine is
   a) 0.03 / 100 mm b) 0.03 / 200 mm
   c) 0.03 / 300 mm d) 0.03 / 400 mm

9) Which one of the following is used for checking run out of the internal taper of machine spindle?
   a) Dial test indicator
   b) Test mandrel and dial test indicator
   c) Precision height gauge
   d) Test mandrel and precision height gauge

10) The sensitivity of precision spirit level is
   a) 0.02 to O.05 / l00 mm
   b) 0.02 to 0.05 / 200 mm
   c) 0.02 to 0.05 / 500 mm
   d) 0.02 to 0.05 / 1000 mm

11) A concrete mixture ratio is given as 1 : 2 : 4. Which one of the following indicates the numbers?
   a) One part cement, two parts sand and four parts stone
   b) One part stone, two parts cement and four parts sand
   c) One part sand, two parts stone and four parts cement
   d) One part cement, two parts stone and four parts sand

12) How many type of maintenance are there?
   a) Two b) Three c) Four d) Five

13) .....is necessary for continuous better production.
   a) Routine maintenance
   b) Breakdown maintenance
   c) Preventive maintenance
   d) None of these

14) Spirit level is used for .....
   a) While foundation of machine
   b) Testing of machine
   c) For starting of machine
   d) While machine is erected

15) Crowbar is made by .....
   a) Copper b) Steel c) Brass d) Cast iron

16) Name the fixed type foundation bolt that is usually forged and filled up with lead and cement?
   a)bent type bolt b) Ordinary bolt c) Eye bolt
   d) Rag bolt

17) Which type of crow bar is easier to handle and the point will fit into a narrow gap?

a) Short crow bar
b) Long crow bar
c) Single ended crow bar
d) Double ended crow bar

18) The sensitiveness of the spirit level depends upon the .....

a) type of liquid filled in the glass tube
b) size of the bubble
c) curvature of the glass tube
d) length of the glass tube

19) The spirit level is used for checking the level of machine when .....

a) Shifting the machine
b) Grouting the machine
c) Erecting the machine
d) Lifting the machine

20) Fastening of one part of rope to other point of rope is known as ……

a) Loop b) Bight c) Knot d) Round turn

21) Preventive maintenance is carried Out

a) Before failure of machine
b) After failure of machine
c) Both (a) & (b)
d) None of these

22) Block spirit level is used to check ……..

a) Horizontal level
b) Vertical level
c) Both (a) & (b)
d) Only angular measurement

23) Spirit level is used for ……

a) Foundation of machine
b) Testing for machine
c) For starting of machine
d) While machine is erected

24) What is the frequency of maintenance symbol?

a) Daily b) Weekly c) Monthly d)Frequently

25) What is the name of foundation bolt?

a) Expanding conical washer bolt
b) Rawl bolt c) Bent type eye bolt
d). Removable bolt

26) Which type of rope knot is used for lifting light load?

a) Slip knot b) Square knot
c) Bowline knot d) Clove hitch knot

27) What is the purpose of clove hitch knot?

a) Secure rope to small pipe or ring
b) Secure rope to pipe or post
c) Joins two pieces of ropes
d) For lifting light loads

28) Which wire rope strands are twisted in the opposite direction?

a) Combined lay rope. b) Regular rope
c) Land lay rope d) Rigid lay rope

29) Name the rope binding method.

a) Round turn b) Knot
c) Bight d) Loop

30) What material is used as a grouting for steam turbines?

a) Clay, lime, brick grout b) Sulphur
c) Lead d). Cement concrete grout

31) What is the name of the foundation bolts?

a) Rawl bolt b) Cotter bolt
c) Bent bolt d) Rag bolt

32-Maintenance consist of the following action(s)

(A) Replace of component
(B) Repair of component
(C) Service of component
(D) All of the above

33-The time elapsed from the point the machine fails to perform its function to the point it is repaired and brought into operating condition is known as

(A) Down time (B) Break Down time
(C) Both (A) and (B) (D) Idle time

34-The down time cost consists of

(A) Loss of production
(B) Wages paid to the workers
(C) Reduction in sales
(D) All of the above

35-The following is not a classification of maintenance

(A) Corrective maintenance
(B) Timely maintenance
(C) Scheduled maintenance
(D) Preventive maintenance

36-Belt of an electric motor is broken, it needs

(A) Corrective maintenance
(B) Scheduled maintenance
(C) Preventive maintenance
(D) Timely maintenance

37-The following is (are) scheduled maintenance

(A) Overhauling of machine
(B) Cleaning of tank
(C) Whitewashing of building (D) All of the above

38-Scheduled maintenance is _____ between breakdown maintenance and the preventive maintenance.

(A) Joint (B) Compromise
(C) Bridge (D) In

39-Equipment history cards are meant to record

(A) The way equipment behaves
(B) Total down time of the equipment
(C) The rate at which different components wear off
(D) All of the above

41-With the increase in preventive maintenance cost, breakdown maintenance cost

(A) Increases (B) Decreases
(C) Remain same (D) any of the above

42-A systematic approach for maintenance is

(A) Problem – Cause – Diagnosis – Rectification
(B) Problem– Diagnosis – Cause – Rectification
(C) Problem – Measure – Diagnosis – Rectification
(D) Problem– Diagnosis – Measure – Rectification

43-(Down time in hours / Available hours) =

(A) Maintenance effectiveness
(B) Frequency of breakdown
(C) Effectiveness of maintenance planning
(D) None of the above

44-(Number of breakdowns / Available machine hours) =

(A) Maintenance effectiveness
(B) Frequency of breakdown
(C) Effectiveness of maintenance planning
(D) None of the above

45-Total productive maintenance aims at

(A) Less idle time
(B) Increase in productivity
(C) Zero down time
(D) None of the above

46-Total Productive maintenance (TPM) approach has the potential of providing almost a seamless integration between

(A) Production and Quality
(B) Quality and Maintenance
(C) Production and Maintenance
(D) All of the above

47.Leveling bolts are used for.....

(A) supporting the load for machine
(B) adjusting the height for machine
(C) rigidity of machine
(D) none of the above

48. A concrete mixture ratio is given as 1:2:4. Which one of the following indicates the number?

(A) one part cement, two parts sand and four part stone
(B) one part stone, two parts cement and four part sand
(C) one part sand, two parts stone and four parts cement
(D) one part cement, two parts stone and four parts sand

49. Which of the following is not a type of foundation for machines?

(A) Block type
(B) Box type
(C) Bare type
(D) Framed type

50. Anchor bolts, which secure the machine to its foundation, are normally of the type.....

(A) I bolt
(B) J bolt
(C) T bolt
(D) Square bolt

ANSWERS: MACHINE FOUNDATION

1-A, 2-C, 3-C 4-D, 5-A, 6-B, 7-A, 8-C, 9-B,10-D,11-A,12-B,13-C,14-A,15-B,16-D,17-A, 18-C,19-C,20-C,21-A, 22-C, 23-A, 24-B, 25-B,26-A, 27-B,28-B, 29-D,30-C,31-A, 32-(D), 33-(C), 34-(D), 35-(B), 36-(A), 37-(D), 38-(B), 39-(D), 40-(C), 41-(B), 42-(A), 43-(A), 44-(B), 45-(C), 46-(C)
47-(b), 48-(a), 49-(c), 50-(b)

AUTOMOBILE

1. Poston rings are generally made of –

A. Brass
B. Copper
C. Cast iron
C. Aluminum

2. Which part of the piston is subjected to high pressure and temperature?

A. Crown
B. Skirt
C. Land
D. Ring section

3. The purpose of a gudgeon pin is to

A. Combustion
B. Cylinder wall lubrication
C. Oil consumption
D. All of the above

4. The connecting rod is made of-

A. Mild steel
B. Aluminum
C. Alloy steel
D. Cast iron

5. Each time a joint is assembled, art is recommended to replace-

A. Cork gaskets
B. Asbestos gaskets
C. Rubber gaskets
D. All gaskets

6. The oil pan in an engine is made of –

A. Steel or aluminum
B. Steel or cast iron
C. Cast iron or brass
D. Cast iron or zinc

7. The minimum number of compression rings in an automotive engine is-

A. One
B. Two
C. Three
D. Four

8. Compression ring are generally made of

A. Low carbon steel
B. High carbon steel
C. Aluminum
D. Cast iron

9. Connecting rod connects the crankshaft and the

A. Cylinder head
B. Cylinder block
C. Piston
D. Camshaft

10. On the rear end of a crankshaft is mounted

A. Timing sprocket
B. Flywheel
C. Vibration
D. Counterweight

11. in a six-cylinder car engine the angle between the successive crank throw is-

A. 60 degree B. 90 degree

C. 120 degree C. 180 degree

12. The opening and closing of valves in relation to piston movement is called

A. Valve timing B. Valve operating

C. Valve mechanism D. Valve overlap

13. Which one of the following camshaft drive mechanisms is used when crankshaft and camshaft are very close to each other?

A. Gear drive B. Chain drive

C. Bolt drive D. Sprocket drive

14. On the front end of a crankshaft is mounted

A. Timing gear B. Vibration damper

C. Fan pulley D. All of these

15. The vibration damper on a crankshaft reduces the

A. Longitudinal vibrations B. Transverse vibration

B. Torsional vibration D. All of these

16. The most commonly used valve in an automobile engine is-

A. Poppet valve B. Sleeve valve

B. Rotary valve D. None of these

17. Exhaust valve face angle is generally

A. 30 degree B. 45 degree

C. 60 degree D. 75 degree

18. The engine valves are closed by

A. Crankshaft opening B. Camshaft

C. Timing device D. valve spring

19. The camshaft control-

A. Valve opening B. Valve closing

C. Valve timing D. All of these

20. How many times in a minute does as valve on a four-strop engine running at 2000 rpm open and close?

A. 1000 B. 2000

C. 4000 D. 6000

21. Which of the following are added to the piston an cylinder?

A. Piston pins B. Gaskets

C. Piston rings D. Rubble packing

22. The engine component which reduces noise of exhaust gases is

A. Tail pipe B. Inlet manifold

C. Muffler D. Exhaust pipe

23. In which one of the following types the valves are arranged in the cylinder head?

A. I-head B. L-head

C. F-head D. T-head

24. In which one of the following types is the inlet valve arranged in cylinder head and the exhaust valve in the cylinder block ?

A. I-head B. L-head

C. F-head D. T-head

25. Valves are arrange to open before T.D.C or B.D.C is reached. This is called

A. lead B. lag

C. overlaps D. None of these

26. Valve are arranged to close later then T.D.C or B.D.C is reached. This is called

A. Lade B. Lag

C. overlap D. none of these

27. Camshaft in an engine is always mounted

A. Parallel to the crankshaft B. Perpendicular to the crankshaft

C. Inclined to the crankshaft D. None of these

28. A diesel engine

A. is spark ignition engine B. is compression ignition engine

C. is external combustion engine D. uses gasoline as fuel

29. Which one of the following is an example of external combustion engine ?

A. petrol engine B. Diesel engine

C. LPG engine D. steam locomotive engine

30. The main characteristic of diesel engines, which distinguishes from other combustion engines is the method of igniting fuel. What ignite the fuel in the engine cylinder of a diesel engine?

a. compressed air b. spark plug

c. heater plug d. battery

31. when compared to petrol engine, to a diesel engine

a. uses cheaper fuel b. has higher thermal efficiency

c. is heavier d. all of the above

32. When fuel is burnt in an internal combustion engine the chemical energy stored in it is converted into

A. mechanical energy b. Electrical energy

c. heat energy d. Kinetic energy

33. A heat engine converts

A. heat energy into mechanical energy

B. mechanical energy into heat energy

C. both a & b

D. neither a nor b

34. Which one of the following statement is not true about internal combustion engine?

a. immediate starting and stopping possible b. high speed engine

c. mostly double –acting d. combustion inside the cylinder

35. Based on the system of ignition used, diesel engine also called

a. compression ignition engine b. self ignition engine

c. air ignition engine d. airless ignition engine

36. A 4 stroke cycle engine produces one power stroke in

a. 2 revolution of crank shaft b. 4 revolution of crank shaft

c. 6 revolution of crank shaft d. 8 revolution of crank shaft

37. A two stroke cycle engine produces one power stroke in

a. each revolution of crank shaft b. 2 revolution of crank shaft

c. 3 revolution of crank shaft d. 4 revolution of crank shaft

38. Which one of the following gives the correct position of inlet and exhaust valves during the power stroke ?

a. inlet valve opens and exhaust valve closed c. both valves remains in closed positions

b. exhaust valve opens and inlet valve closed d. both valve remains in open position

39. In an engine stroke length is

a. half the throw of crank b. equal to throw of crank

c. double the throw of crank d. three time the throw of crank

40. The stroke of an engine is

a. inside diameter of the cylinder b. distance between t.d.c and b.d.c

c. volume of the cylinder d. Length of the connecting rod

41. A 4 cylinder engine has a capacity of 2.4 liter. The swept volume of one cylinder is

a. 400 cm-cube b. 600 cm-cube

c. 1200 cm cube d. 2400cm cube

42. An engine has a clearance volume of 100 cm cube and a swept volume of 800 cm cube. The compression ratio is

a. 10:1 b. 9:1

c. 8:1 d. 7:1

43. A single cylinder engine, which has a power stroke in every two revolution of the crank each side two working on

a. single- stroke engine b. double - stroke engine

c. three- stroke engine d. four- stroke engine

44. Which one of the following gives the correct sequence of four stroke cycle engine?

a. induction, power, compression, exhaust b. induction, exhaust, compression , power

c. induction , compression , power , exhaust d. induction, power, exhaust, compression

45. If a four stroke engine, makes 1000 revolution per minutes, the number of power stroke/minutes ,will be

a. 250 b. 500

c. 750 d. 1000

46. Which one of the following steps will result in increasing the stroke length?

a. piston made shorter b. Connecting rod lengthened

C. crank shaft throw increase

D. gudgeon pin move near to the crankshaft

47. Which one the following engine component 'carries' the engine over its non –working strokes?

A. piston b. Crank shaft

c. connecting rod d. Flywheel

48 During which one of the following strokes produces in the engine cylinder less than the atmospheric pressure?

a. Induction b. Compression

c. power d. Exhaust

49. If a single- cylinder two stroke engines rotates at 2000 revolution per minute, the number of power strokes per minute is

A. 500 B. 1000

C. 1500 D. 2000

50. Air fuel mixture in a petrol engine is burnt in

A. intake manifold B. exhaust manifold

C. cylinder D. piston

51. The ratio between BHP and IHP is called

A. thermal efficiency b. engine efficiency

C. Mechanical efficiency D. Power efficiency

52. During suction stroke the charge drawn in a diesel engine is

a. fuel only b. mixture of air and fuel

c. air only d. none off the above

53. A two stroke engine has port in the

A. piston b. cylinder wall

C. piston rings d. crankcase

54. Which one of the following condition is not true about intake stroke of 4-stroke diesel engine

A. a partial valve is produce in the cylinder. B. the piston starts at b. d. c

C. The exhaust valve is closed D. air is pushed into the cylinder

55. An engine should not be operated in a closed garage because

A. exhaust gas is poisonous B. of the risk of an explosion

C. the engine receives an incorrect mixture

D. the engine is damaged if the gas cannot escape

56. Which one of the following type of engine has the highest fuel efficiency?

A. opposed engine B. radial engine

C. Inline Engine D. 'v' engine

57. Which one of the following types of engine has longest crankshaft ?

A. opposed engine B. radial engine

C. inline Engine D. 'v' engine

58. During suction stroke the charge drawn in a petrol engines

A. petrol only B. air only

C. air and petrol mixture D. None of the above

59. If there is resistance of the flow air during intake stroke , it will

a. reduce power of the engine b. increase power of the engine

c. have one effect on power of the engine d. Cause fluctuation on power of the engine

60. What is drawn in the cylinder of Diesel engine during suction stroke

A. A mixture of air and fuel
B. Pure air alone
C. Fuel alone
D. Gas

61. In a Diesel engine, fuel and air mix together in the

A. Carburetor
B. Injector
C. Combustion Chamber
D. Inlet port

62. A diesel engine fuel is ignited by

A. Glow plugs
B. Spark plugs
C. An injector
D. Virtue of temperature of compressed air

63. What is the material used to produce crank shaft?

A. Chromium vanadium nickel steel
B. High speed steel
C. Cast iron
D. Wrought iron

64. What is the material of piston pins?

A: Nickel chromium steel
B: Cast iron
C: HSS
D: Bronze

65. What is the name the portion below the piston boss?

A : Land of the piston
B : Ring section of the piston
C : Crown of the piston
D : Skirt of the piston

66. What type of bearing fitted in the connecting rod big end?

A : Needle bearing
B : Ball bearing
C : Taper roller bearing
D : Shell bearing

67. Which part connects the piston with connecting rod?

A : Piston pin
B : Spilt pin
C : Crank pin
D : Cotter pin

68. Which part is connecting the piston with crank pin?

A : Push rod
B : Connecting rod
C : Cam Shaft
D : Crank Shaft

69. Which tool used to remove the crank shaft pulley?

A : Double and spanner
B : Ring spanner
C : Pipe wrench
D : Puller

70. Which tool is used to measure the diameter of the crank shaft main journal?

A : Inside micrometer
B : Outside micrometer

C : Three point internal micrometer D : Master ring gauge

71. What is the material for cam shaft?

A : Forged alloy steel B : Copper alloy

C : Aluminum alloy D : Zinc alloy

72. Which tool is required to remove the valves?

A : Torque wrench B : Valve spring lifter

C : Box spanner D : Scrape

73. Which instrument is used to check the vacuum of the cylinder?

A : Compression gauge B : Dial gauge

C : Vacuum gauge D : Wire gauge

74. Which measuring instrument used to check the fly wheel face out?

A : Dial indicator B : Compression gauge

C : Outside micrometer D : Feeler gauge

75. Which is the most preferred use of taper roller bearings?

A : Gear boxes B : Fly wheel and water pump

C : Differential and wheel hub D : Connecting rods

76. What is the property of a bearing helps to with stand metal to metal contact?

A : Surface action B : Thermal conductivity

C : Fatigue strength D : Embed ability

77. Which is the most preferred use of roller bearings?

A : Gear boxes B : Fly wheel

C : Differential D : Connecting rods

78. Which is connected with piston through piston pin?

A : Gudgeon pin B : Connecting rod

C : Cam shaft D : Rocker arm

79. Which is the key element in converting reciprocating motion in to rotary motion?

A : Connecting rod B : Gudgeon pin

C : King pin D : Cam shaft

80. Which is transferring energy for the piston to crankshaft?

A : Gudgeon pin B : King pin

C : Connecting rod D : Cam shaft

81. Which is the load taken by the roller bearing?

A : Radial load

B : Axial load

C : Thrust load

D : Radial and axial load

82. What is the load taken by taper roller bearing?

A : Radial load

B : Axial and radial load

C : Thrust load

D : Radial and axial load

83. Which is the bearing used in differential and wheel of heavy vehicles?

A : Ball bearing

B : Roller bearing

C : Needle bearing

D : Taper roller bearing

84. Which is the bearing used in water pump?

A : Ball bearing

B : Roller bearing

C : Needle bearing

D : Taper roller bearing

85. Which are the bearing used in gear boxes?

A : Ball bearing

B : Roller bearing

C : Needle bearing

D : Taper roller bearing

86. Which is the most preferred use of bush bearings?

A : Connecting rods

B : Fly wheel

C : Crank shaft

D : Oil pumps

87. Which tool is used to remove the piston ring?

A : Drift punch

B : Ring expander

C : Circle pliers

D : 'C' clamp

88. What is the purpose of the timing chain?

A : To connect water pump pulley

B : To connect alternator

C : To connect crank or cam shaft gear

D : To connect A/C compressor

89. What is the purpose of the fly wheel timing mark?

A : To coincide the gears

B : To set the engine timing

C : To set the F.I.P timing

D : To set the valve clearance

90. Where the fly wheel is fitted in the engine?

A : Cam shaft

B : Crank shaft

C : Rocker arm shaft

D : Primary shaft

91. What is the speed ratio cam shaft to crank shaft?

A : Half

B : Equal

C : Double
D : Triple

92. Which instrument is used to check the tappet clearance?
A : Telescopic gauge
B : Screw pitch gauge
C : Feeler gauge
D : Wire gauge

93. Which gauge used to measure the cylinder bore weariness?
A : Compression gauge
B : Vacuum gauge
C : Dial gauge
D : Depth gauge

94. What is the property allows a bearing to with stand impact load for a reasonable time?
A : Fatigue strength
B : Tensile strength
C : Toughness
D : Hardness

95. What is the property of bearing helps to absorb dirt and metal particles?
A : Conformability
B : Embed ability
C : Surface action
D : Thermal conductivity

96. What is the cause of excessive loading?
A : Fatigue failure
B : Bearing spread
C : Bearing crush
D : Bearing struck

97. What is the cause for uneven wear of bearings?
A : Bend twist
B : Excessive lubrication
C : No lubrication
D : Over heat

98. What is the effect of tapper and ovality of a bore?
A : Compression loss
B : Miss firing
C : Difficult starting
D : False valve timing

99. What is the material of cylinder block?
A : Cast iron
B : Bronze
C : Brass
D : Zinc alloy

100. What is the reason for corrosion of bearing?
A : Less clearance
B : Water mixed with lubricant
C : Over loaded
D : Over heated

Answer- AUTOMOBILE

1.C	2.A	3.D	4.C	5.D	6.A	7.B	8.D	9.C	10.B	11.C	12.A	13.A
14.D	15.C	16.A	17.B	18.D	19.D	20.A	21.C	22.C	23.A	24.C	25.A	26.B
27.A	28.B	29.D	30.A	31.D	32.C	33.A	34.C	35.A	36.A	37.A	38.C	39.C
40.B	41.B	42.B	43.D	44.B	45C	46.C	47.D	48.A	49.D	50.C	51.C	52.C
53.B	54.B	55.A	56.B	57.C	58.C	59.A	60.B	61.C	62.D	63.A	64.A	65.D
66.D	67.A	68.B	69.D	70.B	71.A	72.B	73.C	74.A	75.C	76.A	77.A	78.B
79.A	80.C	81.A	82.B	83.D	84.A	85.A	86.B	87.B	88.C	89.B	90.B	91.A
92.C	93.C	94.A	95.B	96.A	97.A	98.A	99.A	100.B				