



RRB ALP 2025 CBT 2

Assistant Loco Pilot · CEN 01/2025 · CBT 2 · Turner Trade · Part B (Turner) · Question Paper

English

All 2 Shifts (Sets) · Part B (Turner) Section · Official Answer Key

About this Compilation

This booklet contains all **2 shift papers** of the **RRB ALP 2025 CBT 2 (Turner)** examination in **English (Part B (Turner))** section only), with the correct option marked as per the official answer key.

✓ Correct option (highlighted green)

1 of these 150 questions are shown in Hindi. Our saved English papers do not carry them in English, so the official Hindi version of the same question is printed instead and marked with a **HINDI** chip. Nothing here is machine translated.

How to use

- Use the **Index** page to jump directly to any set (clickable).
- Questions appear section by section in the order of the paper, numbered 1 onward.
- Diagram and wide-table questions appear at full width at the end of their section.
- The correct answer is highlighted in green with a tick.

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Index — All Sets (click to open)

Set 1

28 Jul 2026

9:30 AM - 12:00 PM

Set 2

28 Jul 2026

2:30 PM - 5:00 PM

Part B (Turner)

75 Questions • Answer Key

Q1 Part B (Turner)

Given two planes, Plane X is specified as parallel to Plane Y with a tolerance of 0.02 millimeters. If the distance between the planes varies by 0.03 millimeters, what does this indicate?

- A. The planes are within the parallelism tolerance
- B. The planes are perpendicular
- C. The parallelism specification is not met ✓
- D. The parallelism is acceptable

Q2 Part B (Turner)

Which part of a conventional lathe is responsible for holding and rotating the workpiece during machining?

- A. Carriage
- B. Bed
- C. Tailstock
- D. Headstock ✓

Q3 Part B (Turner)

Which hammer is commonly used for peening and riveting operations in metalworking?

- A. Sledge hammer
- B. Claw hammer
- C. Ball-peen hammer ✓
- D. Mallet

Q4 Part B (Turner)

A machinist is selecting a fit for a shaft and hole based on Bureau of Indian Standards (BIS) guidelines. What factor does BIS emphasize?

- A. Weight of the component
- B. Dimensional compatibility for assembly ✓
- C. Thermal expansion rate
- D. Surface roughness grade

Q5 Part B (Turner)

In first-angle projection, where is the top view placed in relation to the front view on a drawing sheet?

- A. To the left of the front view
- B. To the right of the front view
- C. Below the front view ✓
- D. Above the front view

Q6 Part B (Turner)

If two parts manufactured at different factories are assembled successfully due to Bureau of Indian Standards (BIS) standards, which principle is being demonstrated?

- A. Interchangeability ✓
- B. Strength testing
- C. Corrosion resistance
- D. Unique manufacturer specifications

Q7 Part B (Turner)

Which line type is used to indicate the root of an internal screw thread on a job drawing?

- A. A thick continuous line
- B. A thick chain line
- C. A thin continuous line ✓
- D. A thick dashed line

Q8 Part B (Turner)

Which statement about adjustable boring tools is CORRECT?

- A. They can machine different hole diameters ✓
- B. They are used to create threads in a hole
- C. They are best for drilling blind holes
- D. They are designed to make square holes

Q9 Part B (Turner)

Which description best matches the shape of a cone mandrel used on a lathe?

- A. A tapered cylindrical body with pointed ends ✓
- B. A hollow tube with openings at both ends
- C. A flat circular disk with smooth surfaces
- D. A cube having equal sides



Q10 Part B (Turner)

A lathe has a lead screw pitch of 2 millimeters. To cut a thread with a pitch of 1.5 millimeters, what should be the ratio of the driver gear to the driven gear?

- A. The driver gear to driven gear ratio should be 3 to 1
- B. The driver gear to driven gear ratio should be 1.5 to 2 ✓
- C. The driver gear to driven gear ratio should be 2 to 1.5
- D. The driver gear to driven gear ratio should be 2 to 3

Q11 Part B (Turner)

If a technician wants to increase the power output of a drill, what should they focus on?

- A. Increasing the time taken for each task
- B. Reducing the amount of work done
- C. Increasing the work done per unit time ✓
- D. Lowering the speed of the drill

Q12 Part B (Turner)

If a surface finish symbol is given as a straight line, what does it communicate to the machinist?

- A. Applying a surface coating is necessary
- B. Machining must be applied to the surface ✓
- C. No further machining is needed for the surface
- D. Machining is strictly prohibited for the surface

Q13 Part B (Turner)

A supervisor wants to redesign the activity log format to better capture quality control data. Which addition will most improve the log's usefulness for this purpose?

- A. Adding a column for inspection result and defect description for each task ✓
- B. Rearranging the order of worker names in each row
- C. Summarizing lunch break durations in a separate section
- D. Including more color-coded sections for visual appeal and to minimize the mistakes

Q14 Part B (Turner)

You need to estimate the amount of paint required to fill a rectangular tank. Which calculation is most relevant?

- A. Calculate the tank's volume ✓
- B. Calculate the tank's perimeter
- C. Calculate the tank's area
- D. Calculate the tank's height

Q15 Part B (Turner)

What does the graduation on the sleeve (main scale) of a metric outside micrometer usually represent?

- A. 5 mm divisions
- B. 1 mm and 0.5 mm divisions ✓
- C. 2 mm divisions
- D. 0.1 mm divisions

Q16 Part B (Turner)

If the height of a circular segment is increased while keeping the chord the same, what happens to the area of the segment?

- A. The area of the segment becomes zero
- B. The area of the segment decreases
- C. The area of the segment remains unchanged
- D. The area of the segment increases ✓

Q17 Part B (Turner)

Why is computer numerical control (CNC) machining preferred for batch production of complex parts?

- A. It requires different machines for each shape
- B. It relies on operator's judgment for each part
- C. It demands manual drawing for every part
- D. It enables precise replication with minimal errors ✓

Q18 Part B (Turner)

Which statement best describes the difference in setup time between computer numerical control (CNC) and conventional lathes?

- A. CNC lathes generally have shorter setup time ✓
- B. Conventional lathes are fully computerized
- C. CNC lathes require more manual alignment
- D. Conventional lathes always use automatic tool changers

Q19 Part B (Turner)

How does a wedge clamp holder secure the cutting insert?

- A. By tightening the insert with a spring-loaded hammer action
- B. By applying force via a wedge to lock the insert ✓
- C. By magnetic attraction in precision insert clamping
- D. By using suction force to hold the insert



Q20 Part B (Turner)

If the pitch of an ISO thread is 1.5 mm, what is the distance between one thread crest and the next crest?

- A. 2 mm
- B. 1.5 mm ✓
- C. 1 mm
- D. 0.5 mm

Q21 Part B (Turner)

Which dimensional condition correctly represents a component exactly at its high limit?

- A. The measured dimension equals the tolerance value specified
- B. The measured dimension equals the maximum permissible size specified ✓
- C. The measured dimension equals the minimum permissible size specified
- D. The measured dimension equals the nominal dimension of design

Q22 Part B (Turner)

Which operation is typically faster on a computer numerical control (CNC) lathe compared to a conventional lathe?

- A. Manual threading
- B. Single-piece craftsmanship
- C. Repetitive batch production ✓
- D. Fixture setting

Q23 Part B (Turner)

Which of the following is a primary cause of tool wear during computer numerical control (CNC) turning operations?

- A. Variation in coolant delivery direction
- B. Elastic deformation of the machine structure
- C. Improper tool post alignment during machining
- D. Abrasive and adhesive interactions at the tool-workpiece interface ✓

Q24 Part B (Turner)

Which combination best describes the typical composition of tungsten carbide used in tool materials?

- A. Tungsten carbide and iron binder
- B. Tungsten carbide and vanadium binder
- C. Tungsten carbide and chromium binder
- D. Tungsten carbide and cobalt binder ✓

Q25 Part B (Turner)

Which thread system is commonly associated with a 55-degree thread angle in conventional charts?

- A. Whitworth ✓
- B. Metric
- C. Unified
- D. British Association

Q26 Part B (Turner)

If a machinist needs to cut a taper where the axis of the taper is not parallel to the machine bed, what type of angle must be calculated?

- A. Compound angle ✓
- B. Right angle
- C. Included angle
- D. Single angle

Q27 Part B (Turner)

If a lathe operates at a spindle speed of 300 revolutions per minute and the feed per revolution is 0.2 millimeter, what is the feed rate?

- A. 60 millimeter per minute ✓
- B. 600 millimeter per minute
- C. 150 millimeter per minute
- D. 1.5 millimeter per minute

Q28 Part B (Turner)

Which of the following is the most typical and primary application of a sledge hammer in workshop practice?

- A. Delivering powerful blows to large chisels during metal breaking operations
- B. Producing deep impact blows for loosening large rusted mechanical assemblies
- C. Applying high-force strikes for dismantling tightly fitted machine structures
- D. Driving heavy wedges or stakes into large metal or structural components ✓



Q29 Part B (Turner)

A workshop manager wants to reduce long-term health problems caused by metal dust produced during machining operations. Which action is the most effective for improving occupational health safety?

- A. Rotating workers between tasks to limit individual exposure
- B. Using only personal protective equipment for all workers
- C. Implementing local exhaust ventilation systems at dust-generating machines ✓
- D. Posting warning signs near all dust-producing machines

Q30 Part B (Turner)

Which statement best describes a good practice for setting lubrication intervals in preventive maintenance?

- A. Lubricate only after a breakdown occurs
- B. Use manufacturers guidelines for each machine type ✓
- C. Set the same interval for every machine to prevent maintenance
- D. Double the interval to save lubricant

Q31 Part B (Turner)

Which constructional feature allows a sledge hammer to be swung effectively with both hands?

- A. Replaceable soft hammer faces for delicate work
- B. Serrated gripping surfaces on hammer head
- C. Long handle designed to provide large striking arc ✓
- D. Small compact hammer head for easy control

Q32 Part B (Turner)

Which combination of fields ensures proper tracking of machine usage in an activity log format?

- A. Machine serial number and installation date
- B. Machine model and maintenance schedule
- C. Machine model and manufacturer name
- D. Machine identification and usage time ✓

Q33 Part B (Turner)

What can happen if the parting tool is set above the centerline of the workpiece?

- A. Poor chip removal and increased tool wear ✓
- B. No need for coolant
- C. Improved cutting accuracy
- D. Higher spindle power required

Q34 Part B (Turner)

You are tasked to improve the surface finish of parts on a Computer Numerical Control (CNC) turning centre. Which feedback device parameter should you prioritize?

- A. Resolution of the position feedback device ✓
- B. Color of the control panel display
- C. Diameter of the lead screw
- D. Size of the hydraulic pump

Q35 Part B (Turner)

What does EHS stand for in Preventive Maintenance?

- A. Engineering, Health, and Systems
- B. Energy, Hazard, and Security
- C. Ecology, Health, and Standards
- D. Environment, Health, and Safety ✓

Q36 Part B (Turner)

Which component links the cone pulley to the spindle in a cone pulley headstock of a lathe?

- A. The back gear mechanism ✓
- B. The tool post
- C. The apron of the lathe
- D. The feed rod

Q37 Part B (Turner)

Which part of the tool holder secures the cutting tool and helps maintain rigidity during turning?

- A. Chip breaker
- B. Lubrication port
- C. Ratchet
- D. Clamping mechanism ✓



Q38 Part B (Turner)

What does a sectioned assembly view reveal to the technician?

- ☒ A. Internal construction and fit of parts
- ☐ B. Details of electrical circuits
- ☐ C. Lubrication routes inside the system
- ☐ D. Only the external shape of assembly

Q39 Part B (Turner)

Which unit is commonly used to measure energy in workshop calculations?

- ☐ A. Watt
- ☐ B. Newton
- ☒ C. Joule
- ☐ D. Meter

Q40 Part B (Turner)

If the surface finish symbol indicates a required roughness of 3.2 micrometre and prohibits material removal, which is the correct representation?

- ☐ A. A check-mark with a horizontal line and the number 3.2 above
- ☐ B. A check-mark with a triangle and the number 3.2 inside
- ☐ C. A check-mark with both a circle and horizontal line and the number 3.2 beside
- ☒ D. A check-mark with a circle at the corner and the number 3.2 below

Q41 Part B (Turner)

Which one of the following is NOT a standard screw thread form?

- ☐ A. ACME thread
- ☐ B. Whitworth thread
- ☒ C. Hexagonal thread
- ☐ D. Metric thread

Q42 Part B (Turner)

Which material is commonly used for manufacturing transfer caliper legs?

- ☒ A. Hardened steel
- ☐ B. Polished wood
- ☐ C. Brass metal
- ☐ D. Aluminum alloy

Q43 Part B (Turner)

In groove chip breakers, which parameter combination most influences the chip curling process?

- ☒ A. Groove depth and groove position
- ☐ B. Tool material and cutting speed
- ☐ C. Feed rate and the groove length
- ☐ D. Rake angle and the tool hardness

Q44 Part B (Turner)

Which chip form is most desirable when using a chip breaker during machining?

- ☐ A. Tangled chips forming knots
- ☐ B. Long continuous chips
- ☒ C. Small curled or broken chips
- ☐ D. Spiral chips with sharp edges

Q45 Part B (Turner)

A mechanical workshop maintains a daily activity log to record the tasks performed by each operator. Which information is primarily recorded for each entry in this standardized activity log format?

- ☒ A. Time interval and Operations performed
- ☐ B. Material specification and part numbers
- ☐ C. Description of the mechanical fault
- ☐ D. Machine identification number

Q46 Part B (Turner)

A cutting tool is made by sintering tungsten carbide grains with cobalt as a binder. What is the role of cobalt in this composite?

- ☒ A. Cobalt acts as a binder providing toughness to the tool
- ☐ B. Cobalt increases the electrical conductivity of the tool
- ☐ C. Cobalt reduces the thermal conductivity of the tool
- ☐ D. Cobalt increases the hardness of the tool material

Q47 Part B (Turner)

Which type of cutting tool is best suited for maintaining dimensional accuracy while turning a thin rod on an automatic lathe?

- ☐ A. A knurling tool for the surface pattern creation
- ☒ B. A box tool with integrated steady rest fingers
- ☐ C. A standard single point turning tool
- ☐ D. A fixed boring bar for the internal operations



Q48 Part B (Turner)

If the depth of cut is doubled while cutting speed and feed remain constant, how does tool wear behaviour change?

- A. Tool wear increases due to higher cutting forces and temperature** ✓
- B. Tool wear remains nearly unchanged as speed is constant
- C. Tool wear decreases due to improved chip evacuation
- D. Tool wear reduces due to lower friction at the interface

Q49 Part B (Turner)

Which statement correctly describes the shape of a half center used in a lathe?

- A. It has a hole in the center
- B. It has one side flat and one side pointed** ✓
- C. It is conical on both ends
- D. It is completely round on both sides

Q50 Part B (Turner)

A lathe with an imperial lead screw is used to cut a metric thread. Which component must be added to the gear train to achieve the correct thread pitch?

- A. A gear with 100 teeth for conversion
- B. A translation gear with 127 teeth** ✓
- C. A gear with 80 teeth for conversion
- D. A gear with 120 teeth for conversion

Q51 Part B (Turner)

On a job drawing, which joint would you select for joining a pipe to a flat surface, such as a tank wall?

- A. Flanged joint** ✓
- B. Socket joint
- C. Union joint
- D. Spigot joint

Q52 Part B (Turner)

What is a key function of a computer numerical control (CNC) system in a turning centre?

- A. Automated axis movement coordination** ✓
- B. Direct manual tool handling
- C. Physical gear shifting
- D. Hand-operated spindle rotation

Q53 Part B (Turner)

Which part of the tool maker's button ensures accurate alignment when measuring from different faces of a workpiece?

- A. Cylindrical body** ✓
- B. Washer
- C. Flat face
- D. Central hole

Q54 Part B (Turner)

Which component is essential for changing the direction of movement in a drive train during thread cutting?

- A. Feed rod
- B. Lead screw
- C. Reversing gears** ✓
- D. Change gears

Q55 Part B (Turner)

Which fire extinguisher is suitable for controlling a small electrical fire in a workshop?

- A. Use a foam extinguisher
- B. Use sand to cover the fire
- C. Use a water extinguisher
- D. Use a CO₂ fire extinguisher** ✓

Q56 Part B (Turner)

Which sequence best describes the arrangement for cutting metric threads on an imperial lathe using a gear train?

- A. Driver gear, intermediate gear, conversion gear, driven gear** ✓
- B. Conversion gear, driven gear, driver gear, intermediate gear
- C. Driven gear, conversion gear, driver gear, intermediate gear
- D. Intermediate gear, driver gear, driven gear, conversion gear

Q57 Part B (Turner)

Which process is used to make steel harder and more wear-resistant in a workshop?

- A. Tempering
- B. Annealing
- C. Normalizing
- D. Quenching** ✓



Q58 Part B (Turner)

Which parameter is considered a key machine specification for a computer numerical control (CNC) turning centre?

- A. Toolbox size
- B. Coolant reservoir type
- C. Control panel color
- D. Swing over bed



Q59 Part B (Turner)

Why are half millimeter graduations provided on the sleeve of a metric micrometer?

- A. To increase spindle rotation speed
- B. To measure thread pitch
- C. To improve reading accuracy between whole millimeters
- D. To lock the spindle during measurement



Q60 Part B (Turner)

Which part of a lathe must be lubricated regularly to ensure smooth carriage movement?

- A. Tool post
- B. Spindle nose
- C. Bed guideways
- D. Tailstock barrel



Q61 Part B (Turner)

What shape is the end of a thread tool for cutting a square thread?

- A. Flat
- B. Round
- C. Pointed
- D. V-shape



Q62 Part B (Turner)

Which type of workpiece is most suitable for taper turning by the tailstock offset method on a lathe?

- A. A threaded rod held only in a chuck
- B. A short, thick workpiece with a large diameter
- C. A long, slender shaft supported between centers
- D. A flat rectangular plate clamped on the faceplate



Q63 Part B (Turner)

Which component of an adjustable reamer is used to adjust its cutting diameter?

- A. The shank of the reamer
- B. The nut on the reamer
- C. The blades of the reamer
- D. The handle of the reamer



Q64 Part B (Turner)

Which statement correctly describes the use of a bottoming tap?

- A. It is used for making threads in through holes
- B. It is used for finishing threads in blind holes
- C. It creates larger threads than a plug tap
- D. It is used for starting threads in deep holes



Q65 Part B (Turner)

Which step in the Five S concept involves removing items that are not needed from the workspace?

- A. Sustain
- B. Shine
- C. Sort
- D. Set in Order



Q66 Part B (Turner)

What is the correct formula to calculate the indexing movement for one division using a 40-tooth worm wheel?

- A. Indexing movement = 40 divided by number of divisions
- B. Indexing movement = number of divisions divided by 40
- C. Indexing movement = 40 multiplied by number of divisions
- D. Indexing movement = 40 plus number of divisions



Q67 Part B (Turner)

What is the usual effect of increasing the end clearance angle of a cutting tool on tool life?

- A. It can reduce tool life due to weaker cutting edge
- B. It always improves tool life by reducing friction
- C. It makes the tool harder to grind
- D. It has no effect on tool life



Q68 Part B (Turner)

If the pitch of an Acme thread is 4 mm, what is the calculated thread depth?

- A. 1.50 mm
- B. 2.01 mm ✓
- C. 1.90 mm
- D. 2.50 mm

Q69 Part B (Turner)

Why is good housekeeping necessary in a workshop environment?

- A. It makes the workshop noisier
- B. It allows work to be done faster
- C. It increases the cost of repairs
- D. It helps prevent accidents and injuries ✓

Q70 Part B (Turner)

Which feature of a screw thread determines how far a nut moves along the bolt in one complete revolution?

- A. Root
- B. Lead ✓
- C. Pitch
- D. Crest

Q71 Part B (Turner)

Which parameter best describes the arithmetic mean of the absolute values of the surface profile deviations from the mean line within the evaluation length?

- A. Waviness
- B. Root mean square roughness
- C. Roughness average ✓
- D. Maximum profile height

Q72 Part B (Turner)

If the driver gear rotates at 120 rpm and the gear ratio is 3 : 1, what is the speed of the driven gear?

- A. 40 rpm ✓
- B. 60 rpm
- C. 30 rpm
- D. 360 rpm

Q73 Part B (Turner)

During CNC turning operations, the machine suddenly stops, and an alarm indicates "Spindle Overload". Which of the following is the most likely cause of this fault?

- A. The workpiece material is softer than expected.
- B. The cutting tool is dull or improperly mounted. ✓
- C. The machine is idle, and no program is running.
- D. The coolant system is operating normally.

Q74 Part B (Turner)

Which statement correctly explains a characteristic of a stepped mandrel when compared with a plain mandrel?

- A. A stepped mandrel is always shorter than a plain mandrel
- B. A stepped mandrel is only used for soft materials
- C. A stepped mandrel cannot be used on a lathe
- D. A stepped mandrel has multiple diameters along its length ✓

Q75 Part B (Turner)

What is the main principle of unidirectional dimensioning in engineering drawing?

- A. Dimensions are placed in both directions depending on the feature
- B. All dimensions are placed so that they can be read from the bottom of the sheet ✓
- C. Dimensions are placed evenly on the drawing sheet for maintaining the proper gaps
- D. All dimensions are placed so that they can be read from the right side of the sheet



Part B (Turner)

75 Questions • Answer Key

Q1 Part B (Turner)

How is the degree of taper adjusted on a taper turning attachment?

- A. By repositioning the tailstock
- B. By adjusting the feed rate
- C. By altering the angle of the guide bar ✓
- D. By changing the spindle speed

Q2 Part B (Turner)

Why might a company avoid switching completely to computer numerical control (CNC) technology?

- A. Reduced need for technical knowledge
- B. Guaranteed increase in manual skill requirements
- C. High training costs for operators and programmers ✓
- D. Elimination of all maintenance needs

Q3 Part B (Turner)

Which combination of parameters is best for achieving a fine surface finish during turning?

- A. Low feed rate and high cutting speed ✓
- B. High feed rate and high cutting speed
- C. Low feed rate and low cutting speed
- D. High feed rate and low cutting speed

Q4 Part B (Turner)

Which type of V-Block is designed with a single V-groove on the top face and a single square slot on both sides to accommodate a U-clamp during a concentricity inspection setup?

- A. Single-level, single-groove V-block ✓
- B. Single-level, double-groove V-block
- C. Matched-pair V-block
- D. Double-level, single-groove V-block

Q5 Part B (Turner)

Which method can improve the accuracy of job estimation?

- A. Ignoring previous records
- B. Reviewing historical data ✓
- C. Guessing material costs
- D. Overlooking labor hours

Q6 Part B (Turner)

Which process parameter most directly affects the surface roughness achieved by honing?

- A. Abrasive grit size used in honing stones. ✓
- B. Spindle speed maintained during operation.
- C. Stone pressure applied during honing process.
- D. Workpiece material hardness level selected.

Q7 Part B (Turner)

A buttress thread has a major diameter of twenty millimeters and a thread depth of three millimeters. What is the core diameter?

- A. Core diameter is twelve millimeters
- B. Core diameter is seventeen millimeters
- C. Core diameter is sixteen millimeters
- D. Core diameter is fourteen millimeters ✓

Q8 Part B (Turner)

Why is it important to check both plan and elevation views in a bolt drawing before installation?

- A. For checking manufacturer's logo
- B. To ensure correct bolt positioning ✓
- C. Only to check thread details
- D. Because one view is enough

Q9 Part B (Turner)

When choosing a letter drill, what does the letter designation represent?

- A. The material the drill can cut
- B. The recommended cutting speed
- C. The diameter of the drill ✓
- D. The overall length of the drill



Q10 Part B (Turner)

If a batch of similar parts with varying dimensions must be produced, which programming type offers highest flexibility?

A. Parametric programming ✓

B. Manual programming

C. Conversational programming

D. Direct numerical programming

Q11 Part B (Turner)

Which component must be disengaged before operating the back gear mechanism in a lathe?

A. The chuck

B. The lead screw

C. The tailstock

D. The bull gear pin ✓

Q12 Part B (Turner)

A factory implements strict field definition standards for interchangeability. What is the likely result?

A. Greater variation in finished products

B. Increased need for manual fitting

C. Consistent quality and easy part replacement ✓

D. Reduced assembly speed

Q13 Part B (Turner)

A machinist needs to locate two holes exactly 50 millimeters apart using tool maker's buttons each 10 millimeters in diameter. What should be the measured distance between the outer surfaces of the two buttons?

A. The measured distance should be 60 millimeters between the outer surfaces of the two buttons. ✓

B. The measured distance should be 40 millimeters between the outer surfaces of the two buttons.

C. The measured distance should be 55 millimeters between the outer surfaces of the two buttons.

D. The measured distance should be 50 millimeters between the outer surfaces of the two buttons.

Q14 Part B (Turner)

Which system allows for quick changing of tools in computer numerical control turning operations?

A. Tailstock

B. Manual clamping system

C. Modular tooling system ✓

D. Fixed tooling system

Q15 Part B (Turner)

Which maintenance strategy reduces unexpected equipment downtime the most?

A. Run to failure

B. Corrective maintenance

C. Preventive maintenance ✓

D. Deferred maintenance

Q16 Part B (Turner)

What is the safest way to walk on a workshop floor?

A. Step over wires on the floor

B. Use mobile phones for light

C. Walk quickly to avoid hazards

D. Wear suitable safety shoes at all times ✓

Q17 Part B (Turner)

Which tool is most commonly used in a workshop to measure the length of an object accurately?

A. Steel rule ✓

B. File

C. Chisel

D. Hammer

Q18 Part B (Turner)

If a drawing specifies a circularity tolerance of 0.01 millimeter, what is the maximum allowed deviation from a perfect circle for the feature?

A. 0.005 millimeter at any cross section

B. 0.02 millimeter at any cross section

C. 0.05 millimeter at any cross section

D. 0.01 millimeter at any cross section ✓

Q19 Part B (Turner)

When setting up for metric thread cutting on an imperial lathe, what extra component is often needed in chain gear calculation?

A. Use of cutting fluid or coolant

B. A transposing gear in the gear train ✓

C. Extra lead screw oiling

D. Changing the tool point angle



Q20 Part B (Turner)

Which of the following best describes the relationship between Bureau of Indian Standards (BIS) standards and tolerances?

- A. BIS eliminates tolerance requirements
- B. BIS sets acceptable tolerance ranges** ✓
- C. BIS ignores tolerance considerations
- D. BIS increases tolerance values arbitrarily

Q21 Part B (Turner)

What is the main identifying feature of a right hand cutting tool in terms of its cutting edge?

- A. It cuts when moving vertically downward
- B. It cuts when moving from tailstock to headstock** ✓
- C. It cuts when moving vertically upward
- D. It cuts when moving from headstock to tailstock

Q22 Part B (Turner)

A job drawing shows multiple rivets arranged along a straight line. What does this indicate about the rivet pattern?

- A. Plates are joined in a staggered pattern
- B. Plates are joined in a random pattern
- C. Plates are joined in a circular pattern
- D. Plates are joined in a linear pattern** ✓

Q23 Part B (Turner)

Which type of drill is most suitable for making a hole in a concrete wall while retaining a solid cylindrical sample from the center?

- A. Core drill** ✓
- B. Center drill
- C. Twist drill
- D. Countersink

Q24 Part B (Turner)

Which modification to the basic surface finish symbol signifies that material must be removed during the process?

- A. Adding a bar to the basic symbol** ✓
- B. Adding a square to the basic symbol
- C. Adding a dot to the basic symbol
- D. Adding a circle to the basic symbol

Q25 Part B (Turner)

If a component requires a fast linear motion with less rotation, which thread type is preferred?

- A. Fine thread with small lead
- B. Single start thread with fine pitch
- C. Single start thread with small lead
- D. Double start thread with larger lead** ✓

Q26 Part B (Turner)

A machinist sets the workpiece zero incorrectly by 2 mm in the X-axis. What will be the most likely result?

- A. All machined features will be offset by 1 mm in the X-direction
- B. All machined features will be offset by 2 mm in the X-direction** ✓
- C. All machined features will be offset by 4 mm in the X-direction
- D. The tool will automatically compensate for the error

Q27 Part B (Turner)

What is the primary purpose of using slip gauges in accurate length build-up?

- A. Checking flatness of precision surfaces using contact method
- B. Setting reference dimensions for calibrating measuring instruments
- C. Combining gauge blocks to obtain a precise required dimension** ✓
- D. Verifying dimensional tolerances of finished components

Q28 Part B (Turner)

What problem can occur if a water-based coolant contains too much water during machining?

- A. It may not provide sufficient lubrication** ✓
- B. It may reduce machine noise
- C. It may become excessively thick
- D. It may become sticky during use

Q29 Part B (Turner)

Which equation is used to calculate the pitch for a buttress thread if the lead is known?

- A. Pitch = Number of Starts divided by Lead
- B. Pitch = Lead divided by Number of Starts** ✓
- C. Pitch = Lead added to Number of Starts
- D. Pitch = Lead multiplied by Number of Starts



Q30 Part B (Turner)

Which of the following is the primary constituent of ceramic alumina cutting tools?

- A. Tungsten carbide
- B. Silicon carbide
- C. Magnesium oxide
- D. Aluminium oxide



Q31 Part B (Turner)

Which statement about the helix angle in triple start threads is correct if the pitch remains unchanged?

- A. The helix angle increases compared to a single start thread
- B. The helix angle remains unchanged
- C. The helix angle decreases compared to a single start thread
- D. The helix angle becomes zero



Q32 Part B (Turner)

In DNC system interfacing, which device serves as the main data storage for CNC programs?

- A. Personal computer
- B. Machine tool
- C. Printer
- D. Controller



Q33 Part B (Turner)

Which type of computer numerical control (CNC) programming is best suited for simple part geometries and quick setup?

- A. Post-processed programming
- B. Automatic programming
- C. Manual programming
- D. Parametric programming



Q34 Part B (Turner)

Which term best describes the maximum stress that a material can withstand and still return to its original shape after removal of the force?

- A. Yield point
- B. Breaking point
- C. Ultimate strength
- D. Elastic limit



Q35 Part B (Turner)

What happens to the work done if a technician pushes a cart with the same force but doubles the distance?

- A. Work done becomes zero
- B. Work done remains the same
- C. Work done is doubled
- D. Work done is halved



Q36 Part B (Turner)

Why is the cutting speed reduced when machining hard materials on a lathe?

- A. To avoid rapid tool wear and maintain safety
- B. To reduce the need for coolant
- C. To make the material softer for machining
- D. To increase the size of chips produced



Q37 Part B (Turner)

A machinist programs a computer numerical control (CNC) lathe in incremental mode to move the tool 10 mm right and then 5 mm up from its current location. Where will the tool end up relative to its last position?

- A. 15 mm right and 5 mm up from the home position
- B. 10 mm right and 5 mm up from the previous position
- C. 10 mm right and 5 mm up from the workpiece origin
- D. At the original start position of CNC turning machine



Q38 Part B (Turner)

Which process chart is most suitable for recording the movement of materials in a workshop?

- A. Flow process chart
- B. Man process chart
- C. Inspection process chart
- D. Operation process chart



Q39 Part B (Turner)

If a sine bar with 200 millimeter roller centers is raised by 50 millimeter using slip gauges, what is the sine of the angle set?

- A. 0.20
- B. 4
- C. 0.25
- D. 0.40



Q40 Part B (Turner)

Which type of mandrel is best suited for holding a workpiece having a uniform internal diameter during turning operations?

- A. Expansion mandrel
- B. Step mandrel
- C. Plain mandrel
- D. Cone mandrel

Q41 Part B (Turner)

Which step should be performed first when using a divider to transfer a measurement from a scale to a drawing?

- A. Draw the light construction lines on the sheet firstly
- B. Check the drawing for measurement errors before start
- C. Mark points at both ends of the line
- D. Open the divider to the required length on the scale

Q42 Part B (Turner)

A sectional view in a foundation drawing is used to show:

- A. Machine speed
- B. Internal foundation details
- C. Production rate
- D. Cost of construction

Q43 Part B (Turner)

During troubleshooting, why is single-block mode preferred over continuous execution?

- A. It automatically corrects programming mistakes
- B. It detect errors observing each individual command
- C. It completes the job faster then any other mode
- D. It reduces the need for operator supervision

Q44 Part B (Turner)

When a driving plate is used on a lathe, which component commonly helps transmit motion from the spindle to the workpiece?

- A. Tool post
- B. Catch plate
- C. Face plate
- D. Steady rest

Q45 Part B (Turner)

Which mechanism is responsible for feeding tools into the workpiece in a multi spindle automatic lathe?

- A. Hydraulic pump
- B. Cam mechanism
- C. Gearbox selector
- D. Lead screw assembly

Q46 Part B (Turner)

Which aspect is considered a drawback of computer numerical control (CNC) machines in terms of workforce?

- A. Improved manual dexterity required
- B. Reduced need for skilled manual operators
- C. Enhanced physical effort required
- D. Increased demand for unskilled labor

Q47 Part B (Turner)

Which production system benefits the most from interchangeability achieved through standardization?

- A. Single-piece production with customized dimension
- B. Prototype manufacturing with manual fitting procedures
- C. Mass production with automated assembly operations
- D. Experimental manufacturing with variable dimensions

Q48 Part B (Turner)

While setting up a lathe for a knurling operation, the spindle speed should be:

- A. The same speed used for facing operations
- B. Higher than turning speed for the same material
- C. Lower than turning speed for the same material
- D. The maximum speed available on the lathe

Q49 Part B (Turner)

A production line requires drilling multiple holes of varying diameters on a cylindrical workpiece, while ensuring rapid repositioning and accurate alignment. Which type of jig would best suit this scenario?

- A. Plate jig
- B. Channel jig
- C. Template jig
- D. Box jig



Q50 Part B (Turner)

If a lead screw has a pitch of 3 mm, what does this indicate for one complete rotation of the screw?

- A. The screw diameter is 3 mm
- B. The thread height is 3 mm
- C. The nut advances 3 mm per rotation ✓
- D. The screw rotates 3 times per second

Q51 Part B (Turner)

A factory needs to ensure quick assembly and disassembly of parts using even threads. Which property of even threads makes this possible?

- A. Even threads allow for rapid axial movement per revolution. ✓
- B. Even threads always require fine pitch for accuracy.
- C. Even threads have increased friction for locking at different speeds.
- D. Even threads decrease the need for lubrication.

Q52 Part B (Turner)

How can improper clamping affect the part quality in CNC turning?

- A. It improves tool life
- B. It causes dimensional inaccuracies ✓
- C. It increases spindle speed
- D. It reduces coolant flow

Q53 Part B (Turner)

Which instrument is used to check for a short circuit before repairing electrical equipment in a workshop?

- A. A hammer with a wooden grip
- B. A pair of insulated pliers
- C. A screwdriver with a plastic handle
- D. A multimeter set to continuity mode ✓

Q54 Part B (Turner)

Which feature allows a straight peen hammer to spread a metal in one direction?

- A. Narrow elongated peen aligned with hammer handle ✓
- B. Wide flat face distributing force evenly
- C. Cylindrical body of hammer head
- D. Smooth wooden handle absorbing shock

Q55 Part B (Turner)

Which part of an outside micrometer contains the main scale used for measurement reading?

- A. Sleeve (barrel) ✓
- B. Frame
- C. Ratchet stop
- D. Thimble

Q56 Part B (Turner)

Which characteristic is unique to a single start thread compared to a multiple start thread?

- A. Advances one pitch distance per revolution ✓
- B. Contains more than one groove
- C. Has a variable pitch
- D. Advances two pitch distances per revolution

Q57 Part B (Turner)

If a conveyor belt moves at a constant speed, what is true about its velocity?

- A. The velocity is decreasing
- B. The velocity is increasing
- C. The velocity is constant ✓
- D. The velocity is changing direction

Q58 Part B (Turner)

Which of the following best describes the purpose of using a modified rake angle in a single point cutting tool?

- A. To control tool wear during cutting
- B. To select the appropriate lip angle for machining
- C. To set the tool height above the workpiece
- D. To improve chip flow and reduce cutting forces ✓

Q59 Part B (Turner)

What is the immediate effect of setting the tool below the center height in a turning operation?

- A. Uniform tool wear throughout edge
- B. Increased rubbing on workpiece ✓
- C. Reduced spindle speed during cut
- D. Improved chip formation process



Q60 Part B (Turner)

Which advantage does computer numerical control (CNC) have when producing a large number of identical parts compared to conventional machines?

- A. Longer cycle time compared to conventional machining
- B. Reduced setup time for each part ✓
- C. Higher variation between parts due to manual intervention
- D. Increased dependence on operator skill for each part

Q61 Part B (Turner)

What does a personal safety sign showing a white helmet on a blue background indicate to workers?

- A. It shows the location of helmet storage
- B. It warns workers about falling objects
- C. It indicates helmets are not allowed
- D. It tells workers to wear a safety helmet ✓

Q62 Part B (Turner)

How does proper cutting fluid affect chip removal during tapping?

- A. It dissolves chips into the fluid
- B. It keeps chips inside the tapped hole
- C. It creates more chips for disposal
- D. It helps flush out chips from the tap flutes ✓

Q63 Part B (Turner)

If a thread of length 30 mm is to be cut with a pitch of 1.5 mm, how many complete threads will be formed?

- A. 18 threads
- B. 15 threads
- C. 22 threads
- D. 20 threads ✓

Q64 Part B (Turner)

Why is the hammer head hardened and tempered during manufacturing?

- A. To improve corrosion resistance of hammer surface
- B. To resist wear and prevent brittle fracture during striking ✓
- C. To increase elasticity of hammer head during impact
- D. To reduce weight of hammer head for easier handling

Q65 Part B (Turner)

Why is an outside micrometer preferred over a vernier caliper for some measurements?

- A. It provides higher accuracy and precision ✓
- B. It measures only length
- C. It can measure internal dimensions easily
- D. It is larger in size

Q66 Part B (Turner)

Which expression correctly represents the speed ratio when a driver gear has 15 teeth and the driven gear has 45 teeth?

- A. Driven gear speed = Driver speed $\times$ (45/15)
- B. Driven gear speed = Driver speed $\times$ (15/45) ✓
- C. Driven gear speed = Driver speed $\times$ (30/45)
- D. Driven gear speed = Driver speed $\times$ (45/30)

Q67 Part B (Turner) HINDI

कार्यशाला में किसी भारी वस्तु को सुरक्षित रूप से उठाने का सही तरीका क्या है?

- A. पैरों को सीधा रखते हुए और पीठ को झुकाते हुए
- B. घुटनों को मोड़कर और पीठ को सीधा रखते हुए ✓
- C. लोड को उठाते समय शरीर को घुमाकर
- D. केवल उंगलियों की सहायता से हाथों से उठाकर

Q68 Part B (Turner)

A machinist needs to cut a thread with 18 threads per inch using a universal dividing head. If the dividing head has a worm ratio of 40 to 1, how many full turns of the index crank are required for one revolution of the workpiece?

- A. 10 full turns
- B. 40 full turns ✓
- C. 20 full turns
- D. 18 full turns

Q69 Part B (Turner)

Where is the feed rod generally positioned on a conventional lathe machine?

- A. Parallel to the lead screw ✓
- B. Above the tailstock
- C. Inside the spindle
- D. Beneath the chuck



Q70 Part B (Turner)

Which material is most commonly used for constructing the top surface of a marking table?

- A. Wood with a polished surface
- B. Mild steel with a painted finish
- C. Aluminium with a brushed finish
- D. Cast iron with a ground finish



Q71 Part B (Turner)

If a technician knows the base and height of a right triangle, which trigonometric ratio helps them find the angle at the base?

- A. Secant
- B. Sine
- C. Cosine
- D. Tangent



Q72 Part B (Turner)

Which component provides feedback in a closed loop computer numerical control (CNC) machine control system?

- A. Position transducer
- B. Relay module
- C. Limit switch
- D. Power supply



Q73 Part B (Turner)

Which technical form is required when defective products are identified and segregated for rework or disposal in the workshop?

- A. Tool calibration sheet
- B. Production plan form
- C. Delivery challan
- D. Non-conformance report



Q74 Part B (Turner)

What is the standard ratio of length to width for a typical engineering drawing board?

- A. The standard ratio is two to one for a drawing board
- B. The standard ratio is three to two for a drawing board
- C. The standard ratio is $\sqrt{\text{two}}$ to one for a drawing board
- D. The standard ratio is four to one for a drawing board



Q75 Part B (Turner)

Which formula is used to calculate the tool thickness for square thread cutting?

- A. Tool thickness = Pitch – Lead
- B. Tool thickness = $0.5 \times \text{Pitch}$
- C. Tool thickness = $2 \times \text{Pitch}$
- D. Tool thickness = Pitch + Lead

